

Bibliography and Index
of the
Sirenia and Desmostylia

DARYL PAUL DOMNING

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ABSTRACT

Domning, Daryl Paul. Bibliography and Index of the Sirenia and Desmostylia. *Smithsonian Contributions to Paleobiology*, number 80, 611 pages, frontispiece, 1996.—The significant published literature on the neobiology, paleobiology, and ethnobiology of the mammalian orders Sirenia and Desmostylia is exhaustively cataloged in approximately 4590 main entries alphabetized by author. Both technical and popular works are included, and many entries are annotated. The earliest work cited is a letter by N. Syllacio published in 1494 or 1495, describing Columbus's second voyage to the New World. The effective closing date of the bibliography was 1 May 1994.

Six appendices list serial publications devoted to Sirenia, additional sources for history of sirenology and sirenian conservation, coins and postage stamps depicting sirenians, a comprehensive classification and synonymy of sirenians and desmostylians, a summary of the nomenclature of the Recent species of sirenians, and an alphabetical list of the species-group names that have been applied to sirenians and desmostylians.

An extensive index is provided, employing 1059 subject headings and cross references; the subject headings include all Linnaean names and combinations ever employed for sirenians and desmostylians, as well as names of all reported sirenian food plants and parasites. More than 40% of the main entries are fully indexed, and many others are partially indexed, yielding a total of over 13,950 index entries. Each complete index entry includes author and date of the work cited, a brief annotation describing the content of the work as it pertains to the indexed subject, and a page reference for the material pertaining to that subject.

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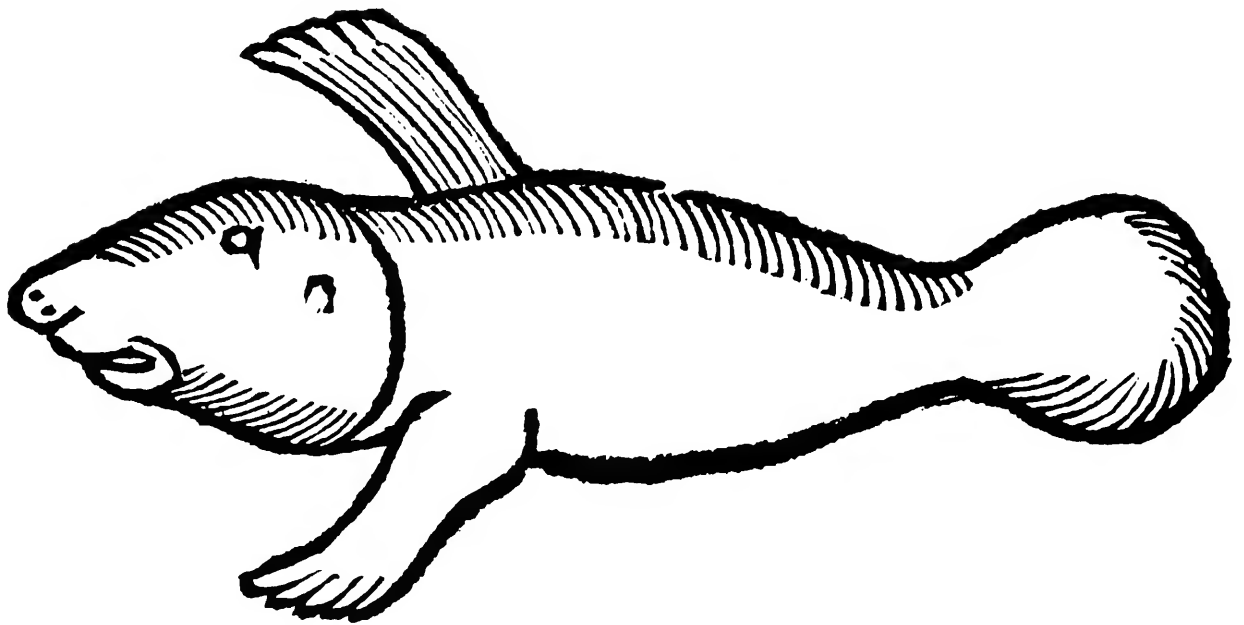
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FRONTISPEICE.—The earliest illustration of a sirenian to be published: the West Indian manatee, from the 1535 edition of *La Historia General delas Indias* by Gonzalo Fernández de Oviedo y Valdés. The slightly different woodcut that has been reproduced several times as the earliest figure of the manatee is actually from the 1547 edition.

Bibliography and Index of the Sirenia and Desmostylia

Daryl Paul Domning

Introduction

What can human beings learn about a particular sort of animal, given five hundred years in which to study it? Sea cows, though long familiar to other large segments of the human race, did not enter the consciousness of Europeans until the time of Columbus. Perhaps the question is not entirely fair, because most of the ensuing centuries have been precisely those in which we were first learning how to learn about nature effectively. If we are granted another half-millennium, our performance will surely eclipse that of our apprenticeship. Furthermore, the wonders revealed by the Age of Discovery were such that shy and homely creatures of distant seas could not expect to rank high on the agenda of investigation.

For these reasons the study of sirenians, like that of other strange new beasts of the tropics, emerged but slowly from the mists of legend and anecdote. The last of the living species regarded today as taxonomically distinct was not recognized until the 1830s, about the time that the fossil record of the order was starting to be uncovered. Some physiological experiments were reported in the 1940s; careful observations of free-ranging wild sirenians began only in the 1950s; controlled experiments on behavior not until the 1970s. Desmostylians were discovered in 1876, but were not generally recognized as a distinct order until 1953.

Even today, knowledge of the Sirenia lags behind that of many more diverse but more familiar, accessible, or economically important orders of mammals. This is only natural. But it would be wide of the mark to imagine, as those newly acquainted with this group sometimes do, that our information about it is, on some absolute scale, scanty. I discovered this for

myself when, in 1967, I naively began to compile an "exhaustive bibliography" of the Sirenia and Desmostylia. Like Joseph Sabin at the start of his incomparably greater task of cataloging the printed works dealing with America (*Bibliotheca Americana*, vol. 1, 1868), had I imagined the eventual scope of the project, I would probably never have attempted it. So it is, I suppose, with all the larger goals we set ourselves; among our greatest blessings is ignorance of the future. Hence the present work.

AIM AND CONTENT OF THE BIBLIOGRAPHY

This work is intended to be, as nearly as possible, an exhaustive bibliography of the significant publications dealing with the mammalian orders Sirenia and Desmostylia. Its compilation was begun at Tulane University in January of 1967 and continues at this writing; even aside from the daily growth of the literature, true completeness in a work of this scope can only be approached asymptotically. It now contains approximately 4590 main entries. Of equal importance with its comprehensiveness, it is both annotated and indexed, for without this apparatus its size would render it almost useless.

My aim has been to cover all aspects of the paleobiology, neobiology, and ethnobiology of sirenians and desmostylians—in short, to embrace all published material dealing with these orders that might conceivably be of use in any sort of biological research. The extinct Desmostylia are justifiably included because they were long regarded as sirenians, are closely related to sirenians, and shared with sirenians the distinction of being the only herbivorous marine mammals. One noteworthy "ethnobiological" topic, however, has been almost ignored: the vast literature on mermaids, whose connection with sirenians is questionable at best and whose interest to zoology is in any case nil.

I have included parasitological literature that reports or discusses actual occurrences of parasites in sirenians, but have tried to avoid works that only discuss the taxonomy or biology

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of the parasites themselves, on the grounds that this is a bibliography of the sirenians and not of the species that parasitize them. The same principle applies to their food plants.

Articles in popular magazines as well as in technical journals are included. However, newspapers, textbooks, encyclopedias, Grassé's *Traité de Zoologie*, and other general reference works have for the most part been omitted. This rule has been applied more strictly to the more recent literature; hence I have included many such secondary sources and works of a general nature published prior to the mid-19th century.

Likewise omitted are newsletters of many governmental and nongovernmental organizations and private companies, notices in the United States *Federal Register*, unpublished theses and dissertations, and other forms of "gray literature" such as in-house and contract reports, unless these latter are available through the U.S. National Technical Information Service (NTIS). Newsletters specifically devoted to sirenians are listed in Appendix 1, but their contents are in most cases not listed in the Bibliography. Also omitted, but of potential historical interest, are some sources listed in Appendix 2. To these might be added a host of leaflets, brochures, posters, and other ephemera dealing with sirenians, which I have endeavored to collect over the years but have not attempted to catalog. (The U.S. National Biological Service's Sirenia Project, headquartered in Gainesville, Florida, also possesses an outstanding collection of such material, especially items pertaining to Florida.)

Having excluded the above, I must add that even many of the references that remain might better have been omitted. The Bibliography as it stands embraces much that is repetitious and trivial—partly because I preferred to err on the side of inclusiveness, especially when citing works I had not seen; but largely because the time needed to weed out the truly worthless could better be spent on other things. I hope and suspect that the bulk of the chaff lies among those items not yet indexed (see below), where it will waste a minimum of the user's time. A still better argument for inclusiveness, however, is that even trivial items are sometimes cited in other works, and it will be useful to the reader to find their true nature and content clarified to some degree here—perhaps forestalling a tedious search in a library.

Regarding those miniature substitutes for scholarly publication known as abstracts, they are a perennial, and usually unmitigated, bibliographical nuisance, and I for one would much prefer they did not exist. Decisions about how to treat them in a work such as this (whether to deem them "published" or not; whether to list them separately from the properly published works, which they sometimes summarize but frequently precede; how to list them when they are summaries of one author's work written and signed by another author, or when they differ in authorship from the main work; etc.) are almost impossible to make and apply consistently. Whoever is annoyed by my lack of consistency will, I hope, resolve not to burden future bibliographers with any more such writings than can be avoided.

One area in which this work may prove less helpful than the user might wish is that of the pre-19th and especially pre-18th century literature. Though I think I have been adequately inclusive for that period, I would like to have spent more time on the annotations for those works, in order to provide clearer guidance respecting their many and various editions and to give more detailed and critical summaries of their sirenological contents. Not having found time to do this in the course of a quarter-century, however, I thought it best not to delay this edition further on this account and to put the greater effort into analyzing the more modern literature, which is of interest to the greater number of readers.

I gladly acknowledge my debt to a long line of other compilers of sirenian bibliographies, beginning with the admirable work of Joel Asaph Allen (1882), who set a standard of descriptive bibliography that I have not attempted to match. I have greatly shortened and simplified his citations, in order to maintain throughout the present work a relatively uniform style that nonetheless should suffice for the purposes of biological (as opposed to bibliographical) research. I refer the reader to Allen's work for further collational and other information on the items he lists, which I have identified as such in the annotations given here.

All compilations of sirenian literature subsequent to Allen's (for a list of which see the Index under Bibliographies of the Sirenia) I have tried to supersede by the present one, though I have omitted some items from those collections in accordance with the criteria outlined above. In addition to those published bibliographies, I have also had the benefit of some manuscript sources: "An Annotated Bibliography of the Helminth Parasites of the Sirenia" by David Blair, and "An Annotated Bibliography of the Antillean Manatee, *Trichechus manatus manatus*," by Antonio A. Mignucci Giannoni. Also consulted were the specialized collections of sirenian literature at the U.S. National Biological Service's Sirenia Project (Gainesville, Florida) and in the laboratory of Dr. Helene Marsh (James Cook University, Townsville, Australia). I particularly thank these colleagues for giving me access to their materials.

FORMAT OF THE BIBLIOGRAPHY

The *main entries* are hopefully self-explanatory in most respects, but it is necessary to understand the following points in order to use the Bibliography most efficiently.

Many of the works listed here I have not seen, and many that I have seen I have not yet indexed, or have indexed only partially and provisionally. (The latter are represented in the Index by obviously incomplete citations.) Works that are as fully indexed and fully annotated as I intend to make them are marked by an "x" at the left-hand margin in both Bibliography and Index, or by an "n" in the Bibliography. Please note: Only the citations so marked should be relied upon for completeness and accuracy. Though I have tried to make all citations as accurate as possible (but have included even very fragmentary ones for the sake of completeness), I do not vouch for the

correctness of any entry not marked as verified. In addition, I have marked with a question mark any information in the main entries or annotations of verified items of which I am unsure. This includes the citations of reviews and abstracts of major works, many of which I have taken from A.S. Romer et al., "Bibliography of Fossil Vertebrates Exclusive of North America, 1509-1927," *Mem. Geol. Soc. Amer.* 87, 1962. Such of these citations as I have not personally verified are followed by a question mark, though they are probably quite reliable.

I have attempted to transcribe the titles of works as fully and accurately as possible, but note that my transcriptions are of the *titles* alone and not the title pages. In other words, material appearing on the title page other than the title itself is not included or not necessarily transcribed exactly as it appears (e.g., name and titles of the author; mottoes; listings of illustrative material; address of the publisher; etc.). Names of the places of publication are generally given in their modern English forms, however they may appear on the title page.

In citations of periodical articles, except where otherwise stated, the *numbers* following the name of the periodical signify (series)volume(number)(whole number or article number, if any): pages. These are followed by the numbers of included tables, figures (= text-figures), plates, portraits, and/or maps. The *date* following the collation is either the nominal date of publication as stated in the work itself, or the actual date of publication where this can be determined, unless otherwise noted.

The *annotations* generally present information in the following sequence, where applicable: Number assigned to the work in the bibliography of Allen (1882); language of the work and any summaries in other languages that are included (where not stated, the language of the work is the same as the language of the title); information on other editions and translations; brief citations of extracts, notices, separately published abstracts, reviews, and reprintings of the work (where the year of publication of any of these is not stated, it is the same as that of the main entry); any other information of a bibliographical or historical sort pertaining to the work; summary of the contents or major conclusions as they pertain to sirenians or desmostylians, together with critical comments. I have generally restricted the latter to comments that would steer the reader to related works or away from objective pitfalls of interpretation; purely subjective evaluations of quality or accuracy have been kept to a minimum.

In the cases of some works I have not seen, I have taken brief annotations as well as citations from other sirenian bibliographies. As these have often appeared verbatim in more than one other compilation (in most cases those of Husar and of Marsh, Channells, and Morrissey), I have generally not bothered to indicate the source(s) from which I obtained each of them. Instead I repeat here my thanks to them all for making my own work much easier and, indeed, possible.

Where a book has appeared in *multiple editions*, I do not guarantee that I have listed them all, and I have usually not attempted to. Instead I have, in general, listed those that I

happened to become aware of, unless they are excessively numerous, and paid special attention to different editions only when I was aware of differences in the sirenian-related material contained. For the rest (and for more nearly complete transcriptions of title-pages and descriptions of formats and collations), I refer the reader to library catalogs and the standard works of reference, with the reminder that this work is primarily intended as an aid to biological rather than bibliographical research. The information I have provided will certainly be adequate for citing books in any of the styles presently used in scientific literature.

Where *Linnaean names* other than those in current use (see Appendices 4 and 5) appear in the annotations, it is because those are the names used in the work being described; I have frequently not attempted to "correct" the author's nomenclature, but neither have I consistently refrained from doing so. (Consistency of any sort is no easy thing to maintain over the course of a labor spanning a quarter of a century!) However, in annotations of Index entries pertaining to Recent species, I have generally used the modern designations of the species in order to facilitate rapid scanning and to avoid annoying the reader with obsolete synonyms when this would serve no useful purpose.

DESIGN AND USE OF THE INDEX

From the outset, I envisioned the Index as an absolutely essential (and the most original) aspect of this work, as it was obvious that without a highly detailed analytical apparatus the Bibliography would be rendered nearly useless by its own size and comprehensiveness—features that ought to be assets rather than liabilities. My goal was to create an index of the entire corpus of literature that would be practically as detailed as the index of a single book, including page references. Furthermore, because many subject headings have large numbers of entries, it was desirable to give each Index entry a brief annotation of its own to aid the reader in choosing among them.

In constructing the Index, I have tried to adhere to the following rules, though I am sure that inconsistencies have crept in over the many years during which this project has been a part-time occupation.

1. *Systematics.*

- A. Generic and specific names of sirenians or desmostylians given in a work are indexed except where only mentioned by way of general orientation (e.g., when an article begins with a brief synopsis of the living species and where they occur).
- B. When only a generic name is given in a particular passage, but the author considers that genus to include only a single species whose name is given elsewhere in the same work, that passage too is indexed under that specific name.
- C. When generic and specific names are not explicitly given in a work, the material is indexed under the narrowest deducible taxon (e.g., statements concern-

ing “the dugong” are indexed under *Dugong dugon*; those concerning “manatees” or “the manatee” are under *Trichechus*; but those concerning “the manatee in Florida” are under *T. manatus latirostris*.

- D. Higher-category names are indexed (if at all) when they are given as part of a suggested classification scheme, or when the group *as a whole* is explicitly treated as such.
 - E. Names of food plants and parasites of sirenians are indexed as given in the work.
 - F. Names used in direct or indirect quotations from other works are not indexed.
2. *Geographic Occurrence.*
- A. Fossil occurrences are indexed under state, country, or region when reported for the first time or when treated at considerable length. Usually only those pages of a work where the geographic location itself is discussed are cited in the Index.
 - B. Recent occurrences are indexed under state, country, or region when discussed at length or (if the locality is highly unusual) whenever mentioned. Usually only those pages of a work where the geographic location itself is discussed are cited in the Index.
 - C. Localities of food plants and parasites are usually indexed when reported for the first time or when treated at considerable length.
 - D. Localities only mentioned in direct or indirect quotations from other works are not indexed.
3. *Geologic Age.*
- A. Fossil occurrences are indexed under geological epoch when reported for the first time or when treated at considerable length, and when their age is explicitly stated or is determinable. They are indexed under the epoch to which they are assigned in the work, even if this has proven to be erroneous. Usually only those pages of a work where the age is discussed are cited in the Index.
 - B. Chronostratigraphic occurrences mentioned in direct or indirect quotations from other works are not indexed.
4. *Other Subjects.*
- A. Subjects other than those above are indexed when significant information is provided.
 - B. Subjects mentioned in direct or indirect quotations from other works are not indexed or are indexed only under general topics.

An obstacle to retrieving information on particular species is the great number of *synonyms* that have been used for many of them in the past. As stated in Rule 1A above, I have indexed all material under the Linnaean name actually used by the author. Therefore, citations pertaining to *Trichechus manatus*, for example, are scattered under some 20 different subject headings. Uniting them all under a single heading, which would be desirable for many purposes, did not seem advisable because many synonymies are subjective and hence liable to

revision, especially in the case of fossil forms. To aid the user I have instead included, as Appendix 4, a complete classification and synonymy of the Sirenia and Desmostylia (reflecting, of course, my own current views on their proper nomenclature and arrangement). This appendix lists, under each of the names presently in use, all the other names and combinations under which that species is cited in the Index.

As a short cut around this problem, however, the user interested in the Recent Sirenia should realize that the majority of synonyms of these species were hardly ever used. Indeed, if just the following three synonymies are kept in mind, the Index can be used efficiently for nearly all purposes without reference to Appendix 4 and with no significant loss of information. The names used in much of the older literature for the three Recent genera—indeed, the *only* synonyms ever used for them to any important extent—were *Manatus* for *Trichechus*; *Halicore* for *Dugong*; and *Rytina* (or *Rhytina*) for *Hydrodamalis*. These rules of thumb, together with the indications of synonymy given in the Index headings themselves, should make the Index simpler to use than may at first appear. Finally, Appendix 5 provides a convenient list (unencumbered by synonyms) of the correct scientific names now used for the living species of sirenians, and Appendix 6 is a finding index showing all the generic names with which a given specific or subspecific name has been combined in the sirenian-desmostylian literature.

If the user is seeking lists and synonymies of the various *vernacular* or informal names of sirenians that appeared in the earlier literature, extensive compilations of these can be found in the more comprehensive 18th- and 19th-century works such as those of Erxleben (1777), G. Cuvier (1809), de Blainville (1844), J.F. Brandt (1846c, 1868a), and J.E. Gray (1866). For non-European vernacular names, see the Index under Vernacular Names.

COMMENTS ON INFORMATION RETRIEVAL METHODS

This work was put into computerized form using the Notebook II database program (Pro/Tem Software, Inc., Stanford, California). However, I designed it long before the advent of personal computers, and with the intention that it would be disseminated and used purely in printed form. Although the use of a computer to convert my handwritten index cards into the present publication has yielded an electronic database as a byproduct, the work's format still reflects my original intent. Specifically, and in contrast to most other computerized bibliographies, there is nothing here that corresponds to “key-words”; the Index has not been generated by the computer, but rather has been constructed entirely by hand, as a glance at the annotations will show. Though demanding great labor from the bibliographer, this approach has the very important advantage to the user that most of the computer searches that might be desired (including many Boolean combinations) have, in effect, already been “done” and the results printed out in the Index. Thus the user who lacks ready access to a computer can retrieve from this printed copy

most of the more commonly desired sorts of information, and do so about as efficiently as could be done with a computer, simply by visually scanning the Index.

Having put myself to the trouble of constructing in this manner an index (still obviously far from complete) of a comparatively small body of literature (roughly 4500 titles), I have several observations to offer on the implications of this work for future developments in information retrieval:

1. A hand-made index of this level of detail is not really practical for a corpus of literature even as small as the present one, and would require tremendous amounts of time and dedication even for a bibliography of only a few hundred titles. Therefore I do not recommend this work as a pattern for most others to follow.

2. Only you, the user, will be able to decide whether the result has been worth the trouble, in terms of the rapidity with which you can locate the information you want and avoid searching out in a library works you do not want. On the other hand, however, the existence of such a detailed index of at least one body of scientific literature provides precisely the opportunity to determine whether this degree of indexing (however achieved) is worth the trouble. In other words, it sets a benchmark (approaching a theoretically "maximal" depth of indexing, though short of the detail of a concordance) for comparison with other retrieval systems. It shows what *can* be accomplished, given sufficient investment of labor, and poses the question: Is this level of detail needed, or desirable?

3. If it is judged desirable, or desirable up to a point, then the challenge will be to attain this level of detail by more efficient (i.e., automated) means. Barring presently unanticipated advances in artificial intelligence, however, this will not be easy. Key-word systems come close to doing the job only for the most recent technical literature, narrowly focused, accurately titled, and packaged in standardized formats. How much highly trained human labor would be needed to corral the exuberant chaos of writings left by earlier naturalists, and to reduce it to a comparable system, with or without the aid of computers—that, I invite you to judge for yourself by browsing through the pages that follow.

FREQUENTLY USED ABBREVIATIONS AND SYMBOLS

Used in left-hand margins:

- x Entry verified, fully indexed, and in final form
 n Entry verified and in final form but not indexed (used only in Bibliography)
 D Entry contains material on Desmostylia
 v Taxon referred to only under a vernacular name, or otherwise than by the Linnaean name under which the entry is listed (used only in Index)
 * Reference of particular interest or importance with regard to the subject in question (used only in Index)

Used in annotations:

- DD *Dugong dugon*

HG	<i>Hydrodamalis gigas</i>
TI	<i>Trichechus inunguis</i>
TM	<i>Trichechus manatus</i>
TML	<i>Trichechus manatus latirostris</i>
TMM	<i>Trichechus manatus manatus</i>
TS	<i>Trichechus senegalensis</i>
abstr(s).	abstract(s)
acc.	account
capt.	captivity
chaps.	chapters
comp. w/	compared with; when not otherwise stated, the comparison is usually with regard to osteology
distr.	distribution
econ. use	economic use
ed(s).	edition(s); editor(s)
Engl.	English
Eoc.	Eocene
gen. acc.	general account; contains no original data
in capt.	in captivity
m (before page number)	mention; i.e., only passing mention is made of the topic, so that the reader's examination of the reference would not be justified in most cases
Ma	million years ago
Mioc.	Miocene
mm.	millimeter
n.comb.	new combination
n.fam.	new family
n.gen.	new genus
n.sp.	new species
n.subsp.	new subspecies
NTIS	National Technical Information Service (U.S. Dept. of Commerce, Springfield, Va. 22151)
Olig.	Oligocene
Pleist.	Pleistocene
Plioc.	Pliocene
pop. acc.	popular account; written on a less formal level than "gen. acc."
publ.	published
Rec.	Recent
repr(s).	reprinting(s), reprinted
rev(s).	review(s)
sir(s).	sirenian(s)
summ.	summary(ies)
syn.	junior synonym
transl.	translation
{ }	enclosed quotation includes all sirenian-related information in the cited reference
{ { } }	enclosed quotation includes the entire content of the cited reference

Acknowledgments

It would be impossible to acknowledge all my friends and colleagues who have contributed references or other forms of aid to this project. If bibliography itself is a thankless pursuit,

assistance rendered to it seems to be still more so, though I would wish it otherwise. But some names cannot be omitted.

S. David Webb unknowingly set me on the path to this project when he taught me that one cannot claim to be a specialist in a field without thoroughly knowing its literature. Joseph A. Ewan gave the project its earliest material help, guidance, and encouragement, and, with his wife and collaborator Nesta, set an unforgettable example of scholarly dedication. Clayton E. Ray, while admirably filling the roles of mentor, colleague, and collaborator over many years, has also provided an example of persistent attention to detail that has often inspired or shamed me into rekindling my flagging energies.

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Victor B. Scheffer and Noel D. Vietmeyer generously bestowed on me their extensive personal collections of sirenian literature. My parents, Maud M. and Emile F. Domning, have

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Bibliography of the Sirenia and Desmostylia

A

Anonymous

1507. *Paesi nouamente trouati. Et Nouo Mondo da Alberico Vesputio Florentino intitulado.*

(Montalboddo Fracanzani, ed.)

Vicenza: unpagged, 112 chaps. in 6 books.

–J. C. Rodrigues (*Bibliotheca brasilense* ..., pt. 1, Rio de Janeiro, Rodrigues & Co., 440, 1907) reportedly gives a Portuguese transl. and lists 13 other eds. in Italian, Latin, German, and French. C. Malheiro Dias et al. (*História da colonização portuguesa do Brasil* ..., Porto, Litografia Nacional, 2: 112–117, 1923) published a facsimile of the Italian original with a Portuguese transl. W.B. Greenlee (pp. 53–94 in: *The voyage of Pedro Alvarez Cabral to Brazil and India from contemporary documents and narratives*, London, Hakluyt Soc., series 2, No. 81: 1–228, 1938) also reproduces the Italian original with an Engl. transl.; the relevant passages of both are reprinted in Whitehead (1977: 169).

Whitehead considers this work, which is the earliest one cited in this bibliography after that of Syllacio (1494?), to contain the first published description of the manatee (book 2, chap. 66, leaves 52 verso–53 recto; p. 60 in Greenlee's transl.). The locality was Bahia Cabrália, Brazil; the unknown author was a member of Cabral's expedition.

A different version of the same account is said to have appeared in Latin in 1571; this was translated into English (in J. Osório da Fonseca, *The history of the Portuguese* ..., London, A. Millar, 1: 98, 1752) and into Portuguese (in J. Osório da Fonseca, *Da vida e feitos de El-Rei D. Manuel* ..., Porto, Liv. Civ., 1: 87–88, 1944); see Whitehead (1978: 498).

Anonymous

1765. Lamantin. In: *Encycl., ou Dict. des Sci., des Arts et des Métiers.*

Vol. 9: 225.

–Allen 294.

x Anonymous

1829. The mermaid of the Shetland seas.

Edinb. New Philos. Jour., 6: 57–60. For Oct.–Dec. 1828.

–Report of capture and release by Shetland Islands fishermen of a three-foot-long manatee-like animal. See also J. Fleming (1828).

Anonymous

1868a. Jets over den Lamantijn (*M. latirostris*).

Jahrb. K. Zool. Genootsch. Amsterdam, 1868: 185–188.

Anonymous

1868b. Til Dyrenes Udryddelses historie.

Tidskr. f. popul. Fremstilling. af Naturvidensk., (3)5.

Anonymous

1870. [Dugong oil.]

New Remedies (Australia?), Jul. 1870.

–Notice: *Pharm. Jour. & Trans.*, Jul. 14, 1870: 63.

Anonymous

1872. Dugong oil.

Pharm. Jour. & Trans. (Australia), Jul. 6, 1872: [pp.?]]

–Describes a dugong exhibit at the International Exhibition (see Ramsay, 1883?), and discusses the dugong and the commercial prospects for its oil. This evoked a letter from J. McGrigor Croft (*Pharm. Jour. & Trans.*, Aug. 3, 1872: 100) about his own efforts at marketing the oil.

x Anonymous

1874a. The manatee at St. Augustine, Florida.

Forest & Stream, 2: 276. Jun. 11, 1874.

–Reports sightings of manatees near St. Augustine, and plans to capture one for exhibition.

x Anonymous

1874b. Attacked by a manatee [sic].

Field & Stream, 2(13): 446. Nov. 14, 1874.

–Brief description of Florida manatee and two accounts of frightened manatees colliding with boats.

x Anonymous

1875. Manatee at the Zoological Gardens.

Nature (London), 12: 294–295. Aug. 12, 1875.

–Detailed pop. acc. of sirenian anatomy; com-

ments on the first manatee brought alive (from British Guiana) to England, and on previous unsuccessful attempts.

Anonymous

1876. The walrus formerly in South Carolina.
Amer. Naturalist, 10: 561.

—Sir. in Ashley phosphate beds near Charleston.

x Anonymous

1878. [Acquisition by St. Petersburg Museum of nine skulls, plus other elements, of *Rhytina borealis*.]
Zool. Anz., 1: 321.

—P. 321: {"2. NOTIZ.—Die paläontologische Abtheilung des St. Petersburger Museums hat ausser dem so eminent wichtigen Elasmotheriumschädel kürzlich noch eine seltene Bereicherung erfahren. Sie erhielt nämlich neun Schädel nebst anderen Skeletresten der *Rhytina borealis*."}

x Anonymous ("Redspinner"; pseudonym of William Senior)

1881. Notes on the dugong.
Gentleman's Mag., 251(= n.s. 27): 738–747.
—Interesting account of the Queensland dugong industry, with details on hunting, use of various parts of the animal, and optimistic appraisals of its economic potential.

Anonymous

1882. Steller's manatee.
Amer. Naturalist, 16: 406.

x Anonymous ("K.")

1883. Aus Kamtschatka.
Deutsche Geogr. Blätter, 6(1): 92–93.
—P. 93: {"Herr St[e]jneger]. wurde von der Smithsonian Institution in Washington zu naturwissenschaftlichen Sammlungen ausgesendet; nach den letzten Nachrichten ist es ihm gelungen, elf wohlerhaltene Schädel und viele Knochentheile der ausgestorbenen Seekuh (*Rhytina Stelleri*) zu erlangen. Dieser kostbare Fund ist bereits in Washington angelangt. D. Red."}
(Notice of L. Stejneger's collection for the Smithsonian Institution of eleven skulls and other bones of *Rhytina*.)

Anonymous

1886. *Dados estatísticos e informações para os imigrantes...*
Pará [= Belém, Brazil], Typ. do "Diario de Noticias," 1–200.
—P. 129: {"A quantidade de mixira de peixe-boi entrada [into Belém from the interior of the province of Pará] nos mesmos annos foi de 48,969 kilos, em 1884; de 23,843 kilos, em 1885; e de 34,351 kilos, em 1886."}

Anonymous

1886? Ausrottung der Seekuh.
Globus. Illus. Zs. f. Länder- u. Volkerkunde, 54: 125.

x Anonymous

1889. Notes from the Zoo.—The manatee.
Saturday Review, 67(1749): 527–528. May 4, 1889.

—Reports on a young manatee from Demerara (British Guiana) in London; also mentions two previous specimens there (527). Includes pop. acc. of Sirenia.

x Anonymous

1893. The "mermaid" at the zoo.
Chambers's Journal, 70: 799–800.
—Account of mother and baby manatee brought to London (799–800); popular discussion of sireni-ans and mermaid legend (800).

Anonymous

1893. SEE ALSO Chobee, O.K., 1893.

Anonymous

1896a. Morôn dugong.
Vesmír (Prague), 25: 265–266. 1 fig.

Anonymous

1896b. La destruction des espèces. Les lamantins.
Le Cosmos, 45(1): 14–15. 1 fig.

Anonymous ("E. K.[?]")

1896c? Ausrottung des Lamantins in Florida.
Prometheus, 7: 747.

x Anonymous

1897. Manatees.
Saturday Review, 83: 36–37. Jan. 9, 1897.
—History of the Zoological Society of London's attempts to import manatees to England (36); suggests that the major cause of death is lack of immunity to local "microbes" rather than temperature (36); comments on sir. evolution (37).

x Anonymous ("J.W.S.")

1898. Notes from Seminole land.
Forest & Stream, 50: 102. Feb. 5, 1898.
—Includes two short paragraphs on Florida manatees and their harpooning by Seminole Indians.

x Anonymous

1901. Dugong hunting in the Torres Straits.
Sci. Amer. Suppl., 51(1325): 21238–21239. 3 figs. May 25, 1901.
—Interesting and detailed account of dugong hunting by New Guinea natives, describing techniques (nets and harpoons) and religious observances.

Anonymous

1902. [Manatee at Ft. Myers, Florida.]
Amer. Field, 57(4): 78.

Anonymous

1905. Au musée de l'instruction publique. Collection de Bois. Lamantin.
Naturaliste Canad., 31: 121–123. 1 fig.

Anonymous (Ministerio das Relações Exteriores, Brazil)

1907a. *Memoria da Commissão Mixta Brasileiro-Peruana de reconhecimento do Rio Juruá e relatório do Comissario Brasileiro 1904-1906*. Rio de Janeiro, Impr. Nacional, 1-212 + annexos A-I.

-P. 98: {"No curso inferior e no médio [do Rio Juruá] surgiam á tona d'agua, de instante a instante, os dous cetaceos: *boto*, *porco do mar*, *pira-jaguara* ou *peixe-caó* dos indigenas (*delphinus*) e a *goarâba* destes, *vacca-fluvial* ou *peixe-boi* dos brasileiros (*manatus americanus*), que é a sereia da fabula. O bôto na vasante faz espera aos peixes pequenos, que descem dos afluentes, para devoral-os."}

Anonymous

1907b. Dujong? von Kamerun!

Sport im Bild, No. 37: [pp.?] 1 fig.

x Anonymous

1908a. A manatee in a net.

Forest & Stream, 71(14): 532. Oct. 3, 1908.

-P. 532: {"Fishermen at Ocean View, Va., brought a manatee ashore in their seine last week and it will probably be sent to some museum, as it is a large, healthy specimen of the manatee usually found in Florida waters."} (See also J.F. Duncan, 1908.)

x Anonymous [C.H. Townsend?]

1908b. Miscellaneous notes. Manatee.

Bull. New York Zool. Soc., 2(29): 427. Apr. 1908.

-Reports that the Florida manatee obtained Sep. 5, 1906, is still living on eelgrass and (in winter) lettuce leaf trimmings.

x Anonymous

1909. The commercial possibilities of the dugong.

Sci. Amer. Suppl., 68(1753): 93. Aug. 7, 1909.

-Pop. acc. of Australian dugong, economic uses, and capture with nets.

Anonymous

1910. The Queensland dugong (*Halicore* sp.).

Zoologist, (4)14: 31-33.

-Dugongs said to have once been abundant in northern Queensland; describes commercial dugong fishing at St. Helena after 1855.

x Anonymous

1911. Schädel der Stellerschen Seekuh.

Korresblt. Naturf. Ver. Riga, 54: 37. 1 fig.

-Photo of skull, published as supplement to C.A. Grevé (1905). The length of the skull is given as 72 cm.

x Anonymous [C.H. Townsend?]

1915. Manatee from Porto Rico.

Bull. New York Zool. Soc., 18(2): 1216-1217. 1 fig. Mar. 1915.

-Brief notice and photograph of 7'7", 437-pound manatee, which arrived at the New York Aquarium Aug. 31, 1914, and lived less than 3 weeks.

x Anonymous

1916a. A manatee from the Amazon.

Bull. New York Zool. Soc., 19(6): 1419, 1421. 1 fig. Nov. 1916.

-Brief notice and photograph of a "*Manatus inunguis*" 5' long, brought to New York Jul. 3, 1916; compares its behavior to that of Florida manatees previously at the Aquarium.

Anonymous

1916b. *Manatus*.

Verh. Natw. Ver. Hamburg, (3)24(68).

Anonymous

1917. SEE ALSO Fairchild, D., 1917.

Anonymous

1917a. Real mermaid.

Home Prog., 6: 315-316. Mar. 1917.

x Anonymous

1917b. Millions in manatee raising.

Illus. World, 28(3): 454. 1 fig. Nov. 1917.

-Maintains that raising manatees for market would be simple and profitable. The photo of a manatee "captured off the Florida coast" is actually of a Puerto Rican specimen and is from Anon. (1915).

x Anonymous

1919. Amazon manatee.

Bull. New York Zool. Soc., 22(2): 46. Mar. 1919.

-Reports the death on July 9 [1918?] of a *M. inunguis* that had lived at the Aquarium for two years. It was found to have "two distinct stomachs"; death was attributed to indigestion associated with this supposed anomaly!

x Anonymous

1923. Mr. Joseph and his manatee.

Lit. Digest, 79: 75. Nov. 3, 1923.

-Animal collector Ellis S. Joseph's account of his unsuccessful attempt to bring a Niger River *T. senegalensis* back to civilization alive.

xD Anonymous

1926. Concerning Shark-tooth Hill.

Standard Oil Bull., 14(4): 12, 16. 2 figs. Aug. 1926.

-Illustration and mention of a "sea-cow" [*Desmostylus*] tooth from Sharktooth Hill in a letter from G.D. Hanna (12).

D Anonymous

1928. An occurrence of *Desmostylus* in Saghalien.

Jour. Geol. Soc. Tokyo, 35: 569-570.

-In Japanese.

Anonymous

1929? [Title?]

- Current Science* (Columbus, Ohio?).
- x Anonymous
1930. Tritons and sirens.
Lit. Digest, 106: 37–38. 1 fig. Jul. 26, 1930.
–Pop. acc. of mermaid legend and sirs.
- Anonymous
1933. Un lamentin peché dans le Tchad.
Bull. Économique de l’Afrique Equatoriale Française, 9(30): 35. 1 fig.
- x Anonymous
1934. A Canadian “monster”: sea-cow, basking shark or “Cadborosaurus”?
Illus. London News, 185(4991): 1011. 4 figs. Dec. 15, 1934.
–Reports a carcass found at Henry Island, British Columbia, thought by “officials of the Provincial Museum at Victoria” to be the last *Rhytina*. (It was clearly a basking shark.)
- Anonymous
1941. *Indicador estatístico do Estado do Pará*.
Belém (Brazil), Oficinas Gráficas do Inst. Lauro Sodré, 1–82.
- Anonymous
1945. A new record of the dugong on the Palestine coast.
Bull. Jerusalem Naturalists’ Club, 12: 1.
- x Anonymous
1949a. Des lamantins dans l’Uélé?
Zooleo (Leopoldville), (3)1(3): 36. Nov. 1949.
–Notice of F. Colmant (1949).
- xD Anonymous
1949b. Prehistoric sea cow skeleton is unearthed.
Sci. News Letter, 56(20): 313. Nov. 12, 1949.
–Report of a Miocene skeleton found by R.H. Reinhart near Coalinga, Calif.; presumably desmostylian, but described as “the ancestor of the modern sea cow.”
- x Anonymous
1952. This is a mermaid? Well that’s what science says.
Life, 33: 129–130. 4 figs. Sep. 15, 1952.
–Pop. acc. of Florida manatees, and of a captive specimen at South Daytona, Florida.
- x Anonymous
1954. Notre lamantin “Goliath.”
Zoo (Antwerp), 19: 78. 2 figs.
–Brief notice of recently arrived *T. senegalensis*, with photos showing healing of wounds suffered in transit.
- x Anonymous
1955a. The original mermaid.
Time, 66(33): 79. 1 fig. Dec. 5, 1955.
–Pop. acc. of Sirenia, South Pacific dugongs, and captive dugong “Eugenie”’s trip to the Steinhart Aquarium, San Francisco.
- x Anonymous
1955b. A pip of a stiff upper lip.
Life, 39(24): 73–74. 4 figs. Dec. 12, 1955.
–Pop. acc. of “Eugenie,” the dugong at Steinhart Aquarium, San Francisco.
- x Anonymous
1956a. Death of a mermaid.
Newsweek, 47(2): 49. Jan. 9, 1956.
–Report of the death of “Eugenie” the dugong at Steinhart Aquarium, San Francisco, from infection and pneumonia.
- x Anonymous
1956b. Hear manatee sounds for first time.
Sci. News Letter, 70(3): 39. Jul. 21, 1956.
–Reports manatee recordings made in Puerto Rico by Dr. and Mrs. Charles J. Fish.
- x Anonymous
1958. [Dugongs caught alive off Malindi.]
Illus. London News, 233: 693, 792. 3 figs. Oct. 25 and Nov. 8, 1958.
–Pictures of two dugongs captured in Kenya.
- Anonymous
1959a. Die Blutkörperchen der Seekühe.
Natw. Rundschau, 12(3): 105.
- Anonymous
1959b. Shark ray and dugong.
Austral. Mus. Mag., 13(2): 49. Jun. 15, 1959.
–Notice of an adult male dugong stranded at Port Hacking, New South Wales, on Feb. 12, 1959 (see also Marlow, B.J., 1962).
- Anonymous
1959c. Sanctuary for mermaids?
Loris, 8(4): 256. Dec. 1959.
–Reports the killing of dugongs with dynamite in the Gulf of Mannar, Ceylon.
- x Anonymous
1960a. The useful manatee.
Time, 76(25): 58. 1 fig. Dec. 19, 1960.
–Account of W.H.L. Allsopp’s weed-clearing experiments with manatees in British Guiana. The index page of the issue (p. 9) contains a short paragraph about the mermaid legend by Bernhard M. Auer, with a photo of a dugong.
- x Anonymous
1960b. Manatee for aquatic vegetation control?
Commercial Fish. Rev., 22(4): 5. Apr. 1960.
–States that the U.N. Food and Agriculture Organization and the Indo-Pacific Fisheries Council were studying manatee vegetation control in Ceylon and Thailand (erroneous; see Anon., 1960c).
- x Anonymous
1960c. Manatee for aquatic vegetation control?
Commercial Fish. Rev., 22(9): 70. Sep. 1960.
–Correction of Anon. (1960b); FAO and IPFC not studying manatee use. See also U.N.F.A.O. (1961).

- Anonymous
1960d. Manatee, the original mermaid. Chap. 27 in: *Wild animals of North America*. Washington, D.C., Natl. Geogr. Soc., 364–365. 1 fig.
- Anonymous
1962a. Seekühe sollen den Karibasee frei machen. *Das Tier*, 2(7): 37.
- Anonymous
1962b. Seekuh als Briefmarkentier. *Das Tier*, 2(12): 28.
- Anonymous
1963. Kleine Seekuh erstmals in einem Zoo geboren. *Das Tier*, 3(8): [pp.?].
- x Anonymous
1964a. Manatee for weed control. *Florida Wildlife*, 18(3): 29–30. 1 fig. Aug. 1964. –Describes the weed-control study in progress under the direction of Dr. Peter Sguros of Florida Atlantic University. Recounts the netting of 5 manatees in the Intracoastal Waterway by the Miami Seaquarium, and gives their sexes, lengths, girths, and weights.
- Anonymous
1964b. Were they Steller's sea cows? *Oryx*, 7(5): 218. Aug. 1964.
- Anonymous
1964c. Is the sea-cow still alive? *Aquarist & Pondkeeper*, 29(6): 103.
- Anonymous
1964d. Use of manatees to control aquatic weeds. *Commercial Fish. Rev.*, 26(10): 107–108. 2 figs. Oct. 1964.
- xD Anonymous
1965a. 14-million-year-old mammal being prepared. *Sci. News Letter*, 87(4): 49, 53. 2 figs. Jan. 23, 1965. –Brief pop. acc. of C.A. Repenning's study of the Stanford *Paleoparadoxia* skeleton, with an artist's reconstruction of the animal in swimming pose.
- D Anonymous
1965b. Stanford fossil—studied by U.S.G.S. *Calif. Div. Mines & Geol., Miner. Inform. Serv.*, 18(6): 124–125. 5 figs.
- x Anonymous
1966a. This is a mermaid. *Men Only* (New York), Jun. 1966: 46–49. 8 figs. –Pop. acc. of netting and release of Kenyan dugongs for use in a film.
- Anonymous
1966b. The Second Oxford Expedition to the Kiunga Archipelago 1961. *Oxford Univ. Exploration Club Bull.*, 13: [pp.?]. –Preliminary report of P.J. Jarman's (1966) survey of dugong status in Kenya (6).
- x Anonymous
1967. Manatees, living lawn mowers. *Sci. Digest*, 62(2): 33–35. 6 figs. Aug. 1967. –Pop. acc. of manatee weed-control experiments in Florida.
- x Anonymous
1968a. The homeliest mermaid. *The Sciences* (New York Acad. Sci.), 8(5): 3–6. 1 fig. May 1968. –Pop. acc. of manatees, their use for weed control, and their refusal to breed in captivity.
- x Anonymous
1968b. [Amazon manatee at Steinhart Aquarium.] *The Casual Crier* (Calif. Acad. Sci.), 2(1): 2–3. Jul. 1, 1968. –Synopsis of the acquisition and treatment for wounds of a specimen obtained Sep. 8, 1967. Notes that the treatment required injection of a total of half a quart of Terramycin, and that since arrival the manatee had eaten over 7000 lbs. of lettuce (25 lbs/day).
- Anonymous
1968c. Taming the timid sea cows. *Sci. Digest*, 64: 22–23. Jul. 1968.
- Anonymous
1968d. Project Big Appetite. *Sci. Horiz.*, No. 96: 20. 4 figs.
- x Anonymous
1969. Dugongs in Australia. *Oryx*, 10(2): 90. Sep. 1969. –Notice of recent bans on dugong hunting, giving the species protection in all Australian waters.
- Anonymous
1970a. Programme de conservation du dugong à Ceylon. *Biol. Conserv.*, 2: 305–306. 1 pl. –Survey of the status of dugongs in the Indian Ocean region by Bertram & Bertram; dugong conservation in Ceylon.
- Anonymous
1970b. Histoire d'une disparition. *Animaux Découvrir* (Paris), 10: 1–22. –Extinction of Steller's sea cow.
- Anonymous
1971. Imagens de um massacre. *Realidade* (issue on "Amazônia"): 157–168. Oct. 1971.
- x Anonymous ("G.M.")
1972a. [Question about porpoises "playing" with a sea cow.] *Sea Secrets*, (4)16(4): 4. Jul.–Aug. 1972. –A reader reports observations of porpoises in the Loxahatchee River, Florida, throwing sea cows "halfway out of the water," and asks if this could be connected with the washing ashore of a dead manatee after one such incident. The answer notes

that porpoises (i.e., bottlenosed dolphins) are playful enough to do this sort of thing, but suggests that the death might have had another cause.

Anonymous?

1972b. [Title?]

Conserv. News (Florida Dept. Nat. Resources), Nov. 1972: [pp.?].

—Reports that manatees in the Titusville Yacht Basin are attracted to boats being washed and drink the freshwater runoff.

x Anonymous

1973a. *Workshop on Aquatic Weed Management and Utilisation: "Some prospects for aquatic weed management in Guyana."* Georgetown, Guyana, Mar. 15–17 1973.

National Science Research Council of Guyana and National Academy of Sciences, U.S.A., viii + 30 + ix–xiii. 2 figs.

—Outlines prospects and recommendations for manatee use in weed control and for a manatee research center in Guyana (4–5, 17–19). See also Anonymous (1974c).

Anonymous

1973b. Early mammals in Britain.

Brit. Mus. (Nat. Hist.) Palaeont. Leaflet, No. 3: 1–5.

x Anonymous

1974a. Another chance for manatees.

Sea Secrets, (4)18(3): 10. 1 fig. May–Jun. 1974.

—Reports establishment of a state manatee refuge at Blue Spring, St. Johns River, Florida.

Anonymous

1974b. Our environment. Manatees and dugongs faring poorly, despite protection.

Bull. Field Mus. Nat. Hist., 45(11): 8–9.

Anonymous

1974c. *An International Centre for Manatee Research. Report of a workshop held 7–13 February 1974* Georgetown, Guyana South America.

Georgetown (Guyana), National Science Research Council, iv + 34. 14 figs.

—Portuguese, Spanish, & French summs. Cosponsors of workshop: National Science Research Council (Guyana), National Academy of Sciences (USA), and International Development Research Centre (Canada).

x Anonymous

1975a. Wanted: manatee sightings.

Sea Secrets, (4)19(1): 12–13. Jan.–Feb. 1975.

—Describes activities of the new National Fish and Wildlife Laboratory established at Gainesville, Florida, to study manatees.

x Anonymous

1975b. Manatee born in captivity.

Sea Secrets, (4)19(3): 6–7. 1 fig. May–Jun. 1975.

—Reports the birth on May 3, 1975 of a manatee conceived in captivity at the Miami Seaquarium.

x Anonymous

1975c. [Question about "bloated" manatees.]

Sea Secrets, (4)19(5): 5. Sep.–Oct. 1975.

—Reports several "abnormally bloated" manatees, including a female with calf, seen in Everglades National Park, and discusses possible causes of this. It is not clear, however, that the animals' shape was any more "bloated" than normal.

x Anonymous

1975d. Here's a manatee story.

Ecolibrium (Shell Oil Co., Houston, Texas), 4(2): 20. 1 fig. Summer 1975.

—Informal account of a manatee sighted in the Norco Refinery outfall on Bayou Trepagnier, a tributary of Bayou La Branche, which runs into Lake Pontchartrain, Louisiana.

Anonymous

1975e. Workshop calls for manatee research center.

BioScience, 25(6): 404–405. Illus. Jun. 1975.

Anonymous

1975f? Mermaids in danger.

Marine Pollution Bull., 5(5): 67.

x Anonymous

1976a. Manatee in the Bahamas.

Sea Secrets, (4)20(4): 8. Jul.–Aug. 1976.

—Report of *T. manatus* observed at Grand Bahama Island in "late 1975."

x Anonymous

1976b. Our diminishing heritage: Dugong *Dugong dugon*.

S.W.A.N.S. (Perth, Western Australia, Dept. of Fisheries & Wildlife, State Wildlife Authority News Service), 6(3): 62–63. 2 figs.

—Partly erroneous pop. acc. of sirs. and of dugong natural history and status in Australia.

Anonymous

1976c. [Manatee birth in Miami.]

Drum & Croaker, 16(2): 24.

Anonymous

1976d. Manatee. [On reverse] The story of Juliet.

Instructor (Dansville, N.Y., The Instructor Publications, Inc.), 85(8), Endangered Species Poster #8: color photo on obverse; 2 pp. of text + 5 figs. on reverse. Apr. 1976.

Anonymous

1976e. Dugongs in Australien.

Natw. Rundschau (Stuttgart), 29(12): 437.

Anonymous (Vietmeyer, Noel D., staff study director)

1976f. *Making aquatic weeds useful: some perspectives for developing countries. Report of an Ad Hoc Panel of the Advisory Committee on Technology Innovation, Board on Science and Technology for*

International Development, Commission on International Relations.

Washington, D.C., National Academy of Sciences, viii + 175. Illus.

—Spanish & French summs. Manatee, 34–40.

Anonymous

1976g. Manatees from KSC waters to be wired for sound. *Spaceport News* (John F. Kennedy Space Center, Florida), 15(6): 3. 2 figs. Mar. 18, 1976.

—Pop. acc. of capturing a manatee cow and calf and tagging them with sonar tracking devices.

x Anonymous

1977a. Dugong steaks for sale.

Oryx, 13(5): 439. Feb. 1977.

—P. 439: {"There is still a dugong market in South India, at Kilakkarai in Tamil Nadu. A decade ago some fishermen fished for dugongs alone, but now few fish exclusively for this endangered species. Dugong meat sells at 4–5 rupees a kilogram."}

Anonymous

1977b. Our environment. Critical habitat for four endangered species.

Bull. Field Mus. Nat. Hist., 48(1): 5–6.

Anonymous

1977c. Endangered species stamps.

Africana, 6(7): 22.

Anonymous

1977d. Miami Seaquarium lucha por la preservación del manatí.

Industria Turistica, 20(4): 16. Apr. 1977.

Anonymous

1977e. Sea cows.

Jour. [Bull.?] Emirates Nat. Hist. Group (Abu Dhabi), No. 1: 3–4. Mar. 1977.

x Anonymous

1977f. Your excellent manatee.

The Economist, Mar. 19, 1977: 80. 1 fig.

—Brief pop. acc. extolling the potential of manatees for weed control.

Anonymous

1979a. Dugong surveys.

S.W.A.N.S. Western Australia (Perth, Western Australia, Dept. of Fisheries & Wildlife, State Wildlife Authority News Service), 9(2): 42–43. 2 figs.

Anonymous

1979b. Commitment to manatee health, research: the laboratory's role.

Florida Conserv. News (Florida Dept. Nat. Resources), 15(2): 18–19. 3 figs. Nov. 1979.

—See also Appendix 1.

x Anonymous

1980a. Last chance for the manatee.

Time, 115(12): 49. 2 figs. Mar. 24, 1980.

—Brief pop. acc. of manatee status in Florida.

x Anonymous

1980b. Gentle siren in distress: saving the endangered manatee from man.

Life, 3(5): 97–98, 100. 5 figs. May 1980.

—Pop. acc. of Florida manatees and manatee conservation efforts, with underwater photos, an aerial view of an aggregation at the Riviera Beach power plant, and a photo of a salvaged carcass.

Anonymous

1980c. Emergency protection area for the manatee.

Endangered Species Tech. Bull. (U.S. Fish & Wildl. Serv.), 5(1): 6–7. 2 figs. Jan. 1980.

Anonymous

1980d. Marine reserve needed for dugongs and turtles.

Oryx, 15(4): 344.

Anonymous

1981. Dugongs.

Wildlife in Papua New Guinea, 81/12: 15–17. 2 figs.

x Anonymous

1982a. Peixe boi desperta curiosidade.

O Norte (João Pessoa, Paraíba, Brazil), 75(75): 3. 1 fig. Mar. 19, 1982.

—Reports a 1200-kg manatee drowned in a fishing net at Praia do Bessa, near João Pessoa.

x Anonymous

1982b. [Manatee models used in school workshops; fossil sir. rib.]

Sea Secrets, (4)26(4): 8–9, 11. 3 figs. Jul.–Aug. 1982.

—Photos of model manatees (8) and a rib fragment dredged from the sea bottom off Clearwater, Florida (11).

x Anonymous

1983a. Oil spill slaughters sea cows.

New Scientist, 99(1367): 180. 1 fig. Jul. 21, 1983.

—Brief notice of 50 dugong carcasses found after the Nowruz oil spill in the Persian Gulf; expresses the (fortunately unwarranted) fear that these animals constituted "the entire dugong population of the gulf."

Anonymous

1983b. Helping the manatee.

Natl. Geogr. World, No. 98: 10–15. 9 figs. Oct. 1983.

Anonymous

1984a. At home with the manatees.

Southern Living, Feb. 1984: 2va–3va. 3 figs.

Anonymous

1985a. The permit system for traditional hunting of dugong: Hope Vale.

Reflections (Townsville, Australia, Great Barrier

- Reef Marine Park Authority), No. 15: 8–9. 3 figs. Mar. 1985.
- x Anonymous (“HM.”)
1985b. The plight of the manatee. *Southern Living*, 20(7): 16, 18. 1 fig. July 1985. –Pop. acc. of Florida manatees. Appended to it is a notice of the Save the Manatee Committee’s new Adopt-A-Manatee program.
- Anonymous
1985c. Nota sobre el sirenid fossil de Montserrat. *Geos, Terra* (Societat Geologica de Terrassa, Spain), 2.
- Anonymous
1986a. Protegidos cetáceos, pinípedes e sirênios. *FBCN/Informativo* (Rio de Janeiro, Fund. Bras. Conserv. Nat.), 10(2): 9? Apr.–Jun. 1986. –Gives the text of Portaria No. N-011 of Feb. 21, 1986, in which the fisheries agency SUDEPE declared *T. inunguis* and *T. manatus* to be protected from hunting in Brazil.
- Anonymous
1986b. Short news item—*Metaxytherium calvertense*. *Ecphora*, 2(2): 2.
- x Anonymous
1986c. Dugongs return to Persian Gulf after fears of extinction. *New Scientist*, 109(1500): 25. 1 fig. Mar. 20, 1986. –Reports the discovery of a herd of 500 dugongs near Bahrain, contrary to fears that the Nowruz oil spill had exterminated the species from the Gulf (cf. Anon., 1983a).
- Anonymous
1987a. Lamantins en détresse. *Le Guido* (Abidjan), No. 213: 48–55. Cover illus. + 10 figs. For week of Jan. 28–Feb. 3, 1987. –Pop. acc. of *T. senegalensis* and James A. Powell’s project in Ivory Coast.
- x Anonymous
1987b. Another orphan saved. *Sea Frontiers*, 33(3): 225. 1 fig. May–Jun. 1987. –Brief pop. acc. of bottle-feeding a baby Florida manatee at Sea World, Orlando; mentions that ultrasound was used to diagnose an intestinal blockage.
- Anonymous
1988a. Dugongs. *Reef Note* (Townsville, Australia, Great Barrier Reef Marine Park Authority): 1–4. 5 figs. Jun. 1988.
- Anonymous
1988b. The manatee: teddy bear of the deep. *Seabreeze* (St. Simons Is., Georgia), 3(6): 38–39. 2 figs. Nov.–Dec. 1988.
- Anonymous
1988c. [The manatee *Trichechus manatus*.] *Priroda* (Sofia), 1988(2): 110. –In Bulgarian.
- x Anonymous
1989a. [Manatees drinking from a hose.] *Sea Frontiers*, 35(3): 187. 1 fig. May–Jun. 1989. –Report with a photo of two Florida manatees drinking fresh water from a hand-held hose at Cape Canaveral Marina.
- Anonymous
1989b. A refuge for manatees. *Florida Naturalist*, 62(4): [1 p.]. Illus.
- Anonymous
1989c. Salvando o peixe-boi marinho. *Brasil Florestal* (Brasília), 67: 21. –Notes the reestablishment of a research project on *T. m. manatus* in Paraíba, Brazil.
- Anonymous
1991a. West Indian manatee. *On the Edge* (Wildlife Preservation Trust International), No. 43: 11. 1 fig. Spring 1991.
- x Anonymous
1991b. Threat to manatees. *Marine Pollution Bull.*, 22(5): 221. May 1991. –Briefly notes conservation efforts by INPA (Manaus) on behalf of *T. m. manatus* and *T. inunguis* in Brazil.
- x Anonymous
1992a. Rumble in Manateeville. *People*, 37(19): 89. 2 figs. May 18, 1992. –Brief account of the legal controversy between the Save the Manatee Club, chaired by singer Jimmy Buffett, and the Florida Audubon Society.
- x Anonymous
1993a. Sea cows under threat. *Down to Earth*, Apr. 30, 1993: 42. 1 fig. –Very brief item (based on information from R.S. Lal Mohan) noting the threats to dugongs in Palk Bay and the Gulf of Mannar, India, from poaching and damage to seagrass beds.
- Abbeville, Claude d’
1614. *Histoire de la mission des Peres Capuchins en l’isle de Maragnan et terres circonvoisines ou est traicte des singularitez admirables & des meurs merueilleuses des indiens habitans de ce pais. Avec les missives et advis qui ont este envoyez de nouveau.* Paris, François Ruby, vii + 394. –Portuguese transl.: São Paulo, 1945 (296 pp.).
Abdulali, Humayun: SEE ALSO Santapau & Abdulali, 1961.

- x Abdulali, Humayun
1978. The birds of Great and Car Nicobars with some notes on wildlife conservation in the islands. *Jour. Bombay Nat. Hist. Soc.*, 75(3): 744–772. 4 pls. Dec. 1978.
–P. 749: {“On the first trip a dugong skull was obtained on Great Nicobar; this presumably extends the recorded range of this animal.”}
- D Abe, Tamio; Sugiyama, Masahiro; Nakamura, Takeshi; Hiraoka, Toshio; & Hirota, Kiyoharu (“Ichinotani Research Group”)
1982. New occurrence of *Desmostylus* from the Miocene Fujina Formation, Shimane Prefecture. *Chikyu Kagaku*, 36(4): 224–228. figs. Jul. 1982.
–In Japanese.
- Abel, Othenio
1902a. Die Ursache der Asymmetrie des Zahnwalschädels. *Sitzb. Akad. Wiss. Wien*, 111(1): 510–526. 1 pl.
–Abstr.: *Jahresber. Anat. Entwickl.* (n.s.), 8(3): 128?
- Abel, Othenio
1902b. Les dauphins longirostres du Boldérien (Miocène supérieur) des environs d’Anvers. II. *Mém. Mus. Hist. Nat. Belgique*, 2(2): 99–190. 3 figs. Pls. 11–18.
- Abel, Othenio
1902c. Zwei neue Menschenaffen aus den Leithakalkbildungen bei Wien. *Sitzb. Akad. Wiss. Wien*, 111(1): 1171–1207. 2 figs. 1 pl.
–Abstr.: *Nature* (London), 69: 36, 1903.
Metaxytherium sp., 1176.
- Abel, Othenio
1903. Die fossilen Sirenen des Wiener Beckens. [Abstr.] *Verh. Geol. Reichsanst. Wien*, 1903: 72. [79?]
- Abel, Othenio
1904a. Die Sirenen der mediterranen Tertiärbildungen Österreichs. *Abh. Geol. Reichsanst. Wien*, 19(2): vi + 223. 26 figs. 7 pls. Jun. 1904.
–Abstr.: *Jahresber. Anat. Entwickl.* (n.s.), 10(3): 184?; *Geol. Mag.*, (5)2: 329–330, 1905?; *Nature* (London), 71: 351, 1905? Characterizes in detail *Halitherium*, *Metaxytherium*, and *Felsinotherium*, and gives extensive synonymies of the species of *Metaxytherium*, including *M. Petersi*, n.sp., and *M. Meyeri*, n.sp. Describes cranial and postcranial material of *H. Christoli*, *M. Krahuletzki*, and *M. Petersi*, comparing them with other fossil and living sirs. Concludes that the genus *Metaxytherium* had a polyphyletic origin from *Halitherium Schinzi*.
- Abel, Othenio
1904b. Über das Aussterben der Arten. *Verh. Internat. Geol.-Kongr. [= C.R. Congr. Geol. Internat.]* (Vienna), 9: 739–748.
- Abel, Othenio
1905a. Über *Halitherium bellunense*, eine Übergangsform zur Gattung *Metaxytherium*. *Jahrb. Geol. Reichsanst. Wien*, 55: 393–398. 1 fig.
–Abstr.: *Geol. Zentralbl.*, 13: 583?
- Abel, Othenio
1905b. Die phylogenetische Entwicklung des Cetaceengebisses und die systematische Stellung der Physeteriden. *Verh. Deutsch. Zool. Ges.*, 15: 84–96.
–Abstr.: *Nature* (London), 73: 516, 1906?
- x Abel, Othenio
1906. Die Milchmolaren der Sirenen. *Neues Jahrb. Min. Geol. Pal., Abh.*, 1906(2): 50–60. 1 fig. Aug. 4, 1906.
–Abstr.: *Geol. Zentralbl.*, 14: 54?; *Jahresber. Anat. Entwickl.* (n.s.), 12(3): 167?; *Sci. Prog.*, 1: 455? Discusses tooth replacement in various fossil forms and *Halicore*; corrects erroneous statements in Abel (1904a); proposes the name *Mesosiren* for *Protosiren Dolloi* (52), proposes a complicated tooth-cusp terminology for it, and discusses the contrast between its milk and permanent teeth; and names *Paraliosiren Suessi*, n.gen.n.sp. (59), on the basis of teeth from the Upper Eocene of Italy.
- Abel, Othenio
1907a. Die Stammesgeschichte der Meeressäugethiere. *Meereskunde*, 1(4): 1–36. 27 figs.
–Engl. transl.: Abel (1908a). Abstr.: *Jahresber. Anat. Entwickl.* (n.s.), 13(3): 173–175?
- Abel, Othenio
1907b. Über die Bedeutung der neuen Fossilfunde im Alttertiär Ägyptens für die Geschichte der Säugethiere. *Verh. Zool.-Bot. Ges. Wien*, 57: 78–82.
- Abel, Othenio
1907c. Die Anfänge des Säugetierstammes. *Verh. Zool.-Bot. Ges. Wien*, 57: 249–250.
- Abel, Othenio
1908a. The genealogical history of the marine mammals. *Ann. Rept. Smithsonian Inst.*, 1907 (Publ. No. 1843): 473–496. 27 figs.
–Translation of Abel (1907a).
- Abel, Othenio
1908b. Die Morphologie der Hüftbeinrudimente der Cetaceen. *Denkschr. Akad. Wiss. Wien, Math.-Natw. Kl.*, 81: 139–195. 56 figs. Read Jun. 6, 1907.

–Abstrs.: *Jahresber. Anat. Entwickl.* (n.s.), 13(3): 126–127?; *Sci. Prog.*, 2: 512?; *Anz. Akad. Wiss. Wien*, 44: 249–250, 1907?

x Abel, Othenio

1908c. Die Anpassungsformen der Wirbeltiere an das Meeresleben.

Schrift. Verein zur Verbreit. natw. Kenntn., Wien, 48: 395–422. 6 figs. Read Feb. 19, 1908.

–Abstr.: *Geol. Zentralbl.*, 15: 602? P. 403: {“*Manatus latirostris* Harlan. Der Lamantin besitzt eine horizontale Schwanzflosse wie die Wale. Als Steuer- und Balancierorgane dienen die vorderen Gliedmassen wie bei den Walen; die hinteren Gliedmassen sind verkümmert und liegen in den Weichteilen wie bei den Walen.”}

Abel, Othenio

1909a. Konvergenz und Deszendenz.

Verh. Zool.-Bot. Ges. Wien, 59: 221–230.

Abel, Othenio

1909b. Was verstehen wir unter monophyletischer und polyphyletischer Abstammung?

Verh. Zool.-Bot. Ges. Wien, 59: 243–249, 253–255.

Abel, Othenio

1910. Diskussion über Riesenwuchs.

Verh. Zool.-Bot. Ges. Wien, 60: 185–187.

Abel, Othenio

1912. *Grundzüge der Paläobiologie der Wirbeltiere.* Stuttgart, E. Schweizerbart, xvi + 708. 470 figs.

–Revs.: *Science*, (2)35: 341–342?; *Zs. Morph. Anthropol.*, 16: 175–196, 1913?; *Naturwiss.* (Berlin), 2: 424–425?; *Morph. Jahrb.*, 48: 673–680, 1914? Abstrs.: *Geol. Zentralbl.*, 20: 582–585?; *Jahresber. Anat. Entwickl.* (n.s.), 18(3): 15?

Abel, Othenio

1913a. Die eocänen Sirenen der Mittelmeerregion. Erster Teil: Der Schädel von *Eotherium aegyptiacum*. *Palaeontographica*, 59: 289–360. 5 figs. Pls. 30–34.

–Abstr.: *Geol. Zentralbl.*, 19: 525? Title page bears date “1912.” Describes in detail the cranial anatomy of the Egyptian Middle Eocene species now called *Eotheroides aegyptiacum*. Abel also planned a study of its postcranial osteology, but this task was eventually carried out instead by Sickenberg (1934b).

Abel, Othenio

1913b. Säugetiere. Paläontologie. In: *Handwörterbuch der Naturwissenschaften.*

Jena, Gustav Fischer, Vol. 8: 695–759. Figs. 1–122.

–Ed. 2: Abel (1933).

Abel, Othenio

1914. *Die vorzeitlichen Säugetiere.*

Jena, Gustav Fischer, vii + 309. 2 tabs. 250 figs.

–Abstrs.: *Zs. Morph. Anthropol.*, 17: 693–694?; *Science* (n.s.), 40: 787–788?

Abel, Othenio

1919. *Die Stämme der Wirbelthiere.*

Berlin & Leipzig, W. de Gruyter & Co., xviii + 914. 669 figs.

–Revs.: *Centralbl. Min. Geol. Pal.*, 1921: 637–638?; *Geol. Mag.*, 58: 45–46, 1921? Abstrs.: *Geol. Zentralbl.*, 27: 183?; *Nature* (London), 106: 274?

Abel, Othenio

1920. *Lehrbuch der Paläozoologie.*

Jena, Gustav Fischer, xvi + 500. 700 figs.

–Rev.: *Centralbl. Min. Geol. Pal.*, 1921: 638–640? Abstr.: *Geol. Zentralbl.*, 27: 26–27? Ed. 2, 1924.

Abel, Othenio

1921. Die Methoden der paläobiologischen Forschung. In: E. Abderhalden (ed.), *Handbuch der biologischen Arbeitsmethoden.*

Berlin & Vienna, Emil Abderhalden (1921–1930): Abt. 10, Lief. 35: 129–312. Figs. 20–120.

–Abstr.: *Geol. Zentralbl.*, 28: 29?

D Abel, Othenio

1922. *Desmostylus*: ein mariner Multituberculate aus dem Miozän der nordpazifischen Küstenregion. *Acta Zoologica* (Stockholm), 3: 361–394. 5 figs. 3 pls.

–Abstr.: *Anz. Akad. Wiss. Wien*, 59: 117–119. See also O.P. Hay (1922b).

D Abel, Othenio

1923. Über einen Multituberkulaten aus dem Miozän der nordpazifischen Küstenregion.

Pal. Zs., 5: 213–225. 5 figs.

Abel, Othenio

1924. *Die Eroberungszüge der Wirbelthiere in die Meere der Vorzeit.*

Jena, Gustav Fischer, vii + 121. 52 figs. 1 pl.

x Abel, Othenio

1925. *Geschichte und Methode der Rekonstruktion vorzeitlicher Wirbeltiere.*

Jena, Gustav Fischer, viii + 327. 255 figs.

–The name “*Halitherium Uytterhoeveni* Lefèvre,” a nomen nudum, was apparently first published here in the caption of a photo of a skeleton from the Rupelien (Oligocene) of Belgium (39). Most *H. schinzi* skeletons in German museums are said to be composite (48).

D Abel, Othenio

1926. Neue Untersuchungen über *Desmostylus*, einen Monotremen aus dem Tertiär der pazifischen Küstenregion.

Verh. Zool.-Bot. Ges. Wien, 74/75: 134–138.

- Abel, Othenio
1928. Vorgeschichte der Sirenia. In: M. Weber, *Die Säugethiere*.... Ed. 2.
Jena, Gustav Fischer (2 vols.), Vol. 2: 496–504.
- Abel, Othenio
1929. *Paläobiologie und Stammesgeschichte*.
Jena, Gustav Fischer, x + 423. 224 figs.
- D Abel, Othenio
1933. Säugetiere (Paläontologie). In: P. Dittler, G. Joos, E. Korschelt, G. Linck, F. Oltmanns, & K. Schaum (eds.), *Handwörterbuch der Naturwissenschaften*. Ed. 2.
Jena, Gustav Fischer, Vol. 8: 859–944. 132 figs.
- D Abel, Othenio
1944. Studien über vergrößerte Einzelzähne des Vordergebisses der Wirbeltiere und deren Funktion.
Palaeobiologica, 8(1–2): 1–112. 40 figs.
- Abraham, H.C.
1924. A note on the occurrence of the duyong in Singapore waters.
Singapore Naturalist, 1: 87.
- x Abrahamson, David
1980. The sirens of Crystal River.
Pan Am Clipper, 20(7): 92–94, 96, 98–99, 104. 5 figs. Jul. 1980.
–Pop. acc. of manatees at Crystal River, Florida, with underwater photos.
- Ackerman, Bruce B.: SEE O’Shea et al., 1992.
- Ackman, R.G.; & Lamothe, F.
1989. Marine mammals. In: R.G. Ackman (ed.), *Marine biogenic lipids, fats and oils*. Vol. 2.
Boca Raton (Florida), CRC Press, Inc. (viii + 495), 179–381. Illus.
- Acosta, Joseph de
1590. *Historia natvral y moral delas Indias, en qve se tratan las cosas notables del cielo, y elementos, metales, plantas, y animales dellas: y los ritos y ceremonias, leyes, y gouierno, y guerras de los Indios.... Dirigida ala serenissima Infanta Doña Isabella Clara Eugenia de Austria*.
Seville, Iuan de Leon, 535 + 18.
–Allen 24. Later eds. in Italian (1596), French (1598; Allen 29), Latin (1602; Allen 36), English (1604; Allen 38), etc. Manati, book 3, chap. “17” (i.e., 15), p. 158.
- Acosta, Manuel Rodriguez de: SEE Rodriguez de Acosta, Manuel.
- Acuña, Cristoval d’: SEE ALSO Estacio da Silveira, S., 1874.
- Acuña, Cristoval d’
1641. *Nuevo descubrimiento del gran rio de las Amazonas.... Al qval fve, y se hizo por orden de Su Magestad, el año de 1639. Por la provincia de Qvito en los reynos del Perú....*
Madrid, Impr. del Reyno, 46 numbered leaves.
- Acuña, Cristoval d’ [and others]
1698. *Voyages and discoveries in South-America. The first up the River of Amazons to Quito in Peru, and back again to Brazil, perform’d at the command of the King of Spain. By Christopher d’Acugna....* [pt. i.] *A relation of the great river of Amazons in South-America. Containing all the particulars of Father Christopher d’Acugna’s voyage, made at the command of the King of Spain. Taken from the Spanish original of the said Chr. d’Acugna, Jesuit.*
London, Samuel Buckley, viii + 190 [= pt. i] + 79 + 68. 2 maps.
–Allen 143. Also an 1859 ed. (London, Hakluyt Soc.). See also Grillet & Bechamel (1698). Manatee, chap. 25, pp. 61–62. According to Allen (1882), “Consists almost exclusively of an account of the “Pege Buey” [*Manatus americanus*], describing its appearance, how it is taken by the Indians, and extolling its flesh as an article of food. A note at the end refers to the trade in its flesh with the “Antilles or Antego-Islands,” to which it is extensively exported.”
- Adam, Elena
1988. Lamantin: une sirène déguisée en vache. *Terre Sauvage*, No. 21: 60–69. 12 figs. + illus. on contents page. Sep. 1988.
- x Adams, Andrew Leith
1866. On the discovery of remains of *Halitherium* in the Miocene deposits of Malta.
Quart. Jour. Geol. Soc. London, 22: 595–596. 1 fig. Read June 20, 1866.
–Describes a tooth, earbone, and caudal vertebra of *Halitherium* from the Calcareous Sandstone of Malta.
- Adams, Andrew Leith
1870. *Notes of a naturalist in the Nile Valley and Malta, a narrative of exploration and research in connection with the natural history, geology, and archaeology of the lower Nile and Maltese Islands*.
Edinburgh, Edmonston & Douglas, xvi + 295. 8 figs. 14 pls. 1 map.
–Sirs., 265.
- x Adams, Andrew Leith
1879. On remains of *Mastodon* and other Vertebrata of the Miocene beds of the Maltese Islands.
Quart. Jour. Geol. Soc. London, 35: 517–531. Pl. 25.
–Rev.: *Ann. Mag. Nat. Hist.*, (5)3: 236–237? Describes *Halitherium ?schinzi* specimens from the Miocene of Malta; upper and lower teeth illustrated (525–527, pl. 25).

- x Adams, Arthur
1870. *Travels of a naturalist in Japan and Manchuria*. London, Hurst & Blackett, x + 334.
–P. 198: {“An imperfect skull of the Halicore, or dugong, was another grand addition to the number of my specimens.”} This was collected on the shore of Aniwa Bay, Saghalien. Sowerby (1923: 136) believed this was actually a *Hydrodamalis* skull; he is probably wrong (see Domning, 1978b: 138).
- Adams, M.P. Greenwood
1924. Australia’s wild wonderland. *Natl. Geogr. Mag.*, 45(3): 329–356. Illus. Mar. 1924.
–Describes a dugong hunt at Collier Bay, northern Western Australia.
- Adanson, Michel
1757. *Histoire naturelle du Sénégal. Coquillages. Avec la relation abrégée d’un voyage fait en ce pays, pendant les années 1749, 50, 51, 52 & 53*. Paris, C.J.B. Bauche, 190 + xcvi + 275. 19 pls. 1 map.
–Engl. transl.: London, 1759; repr. in J. Pinkerton (ed.), *A general collection of ... voyages and travels ...*, vol. 16: 598–674, 1814 (manatee, 656). Brief account of manatee exploitation in Senegal, 143.
- Adanson, Michel
1845. *Cours d’histoire naturelle, fait en 1772 par Michel Adanson.... Publié sous les auspices de M. Adanson, son neveu ...*. Paris, Fortin, Masson & cie, 2 vols. 2 tabs.
–Senegalese manatee, 1: 135–137 (quoted in A.T. de Rochebrune, 1883).
- Addicott, Warren O.: SEE ALSO Clark et al., 1979.
- D Addicott, Warren O.
1967. Age of the Skooner Gulch Formation, Mendocino County, California. *U.S. Geol. Surv. Bull.*, 1254–C: iii + 11. 4 figs.
- x Addicott, Warren O.; & Greene, H. Gary
1974. Zoogeographic significance of a Late Quaternary occurrence of the bivalve *Astarte* off the central California coast. *Veliger*, 16(3): 249–252. 1 tab. 17 figs. Jan. 1, 1974.
–Cites the Monterey Bay occurrence of *Hydrodamalis gigas* as evidence of a southward range extension of cold-water fauna during the Wisconsin glacial period (251–252).
- x Addison, William H.F.
1934. Unusual large nerve cells in the cerebellar cortex of several aquatic mammals. *Psychiatr. en Neurol. Bladen*, 1934(3/4): 587–595. 2 figs. May–Aug. 1934.
–Describes cells in *Manatus americanus* (587, 590) and four other marine mammals.
- Adelung, Johann Christoph
1768. *Geschichte der Schiffahrten und Versuche welche zur Entdeckung des Nordöstlichen Weges nach Japan und China von verschiedenen Nationen unternommen worden. Zum Behufe der Erdbeschreibung und Naturgeschichte dieser Gegenden entworfen*. Halle, Johann Justinus Gebauer, 8 + 740. 19 pls.
–Allen 303. Translates into German Steller’s (1751) description of *Hydrodamalis* (653–667).
- Adloff, Paul
1903. Zur Frage nach der Entstehung der heutigen Säugethierzahnformen. *Zs. Morph. Anthropol.*, 5: 357–382. 5 figs. Pl. 10.
- Adloff, Paul
1910. Über den gegenwärtigen Stand der vergleichenden Morphologie des Zahnsystems der Säugethiere und des Menschen. *Ergebn. Ges. Zahnheilk.*, 1(1): 226–280. 8 figs.
- Agassiz, Louis: SEE ALSO Warren, J.C., 1849.
- x Agassiz, Louis
1849. [On some points of resemblance between the skulls of manatee and mastodon.] *Proc. Boston Soc. Nat. Hist.*, 3: 209. Dec. 19, 1849.
–The manatee is considered to be not a cetacean but “the true embryonic type of the Pachyderms.”
- Agassiz, Louis
1868. *A journey in Brazil*. Ed. 5. Boston, Ticknor & Fields, xix + 540. Illus.
- x Aharoni, J.
1930. Die Säugtiere [sic] Palästinas. *Zs. Säugetierk.*, 5(6): 327–343. Dec. 22, 1930.
–Note on a dugong captured at Tantura (between Haifa and Tel Aviv), having passed through the Suez Canal (330).
- Aharoni, J.
1937. *Ayala vetachash* [Deer and *tachash*]. *Tarbiz*, 8 (1936–37): 319–339. 3 figs.
–In Hebrew with extensive quotations in other languages. According to Dr. J. Shoshani, the title is ambiguous (perhaps intentionally so) and can also be transliterated “Ela vetachash,” meaning “Goat (or sheep) and *tachash*.” The article discusses the identification of the animal referred to in the Bible (q.v.) as *tachash*, including past interpretations of it as a deer, goat, dugong, etc. Aharoni suggests that it may have been a narwhal (*Monodon monoceros*) or a deer (*Cervus capreolus*). See also Furman (1940?).
- Aichel, Otto
1918a. Über Kieferwachstum.

Anat. Anz., 51(19/20): 502–510. 3 figs. Dec. 30, 1918.

Aichel, Otto

1918b. Kausale Studien zum ontogenetischen und phylogenetischen Geschehen am Kiefer mit besonderer Berücksichtigung von *Elephas* und *Manatus*. *Abh. Akad. Wiss. Berlin*, 1918(3): 1–109. 21 figs. 5 pls.

x Aichel, Otto

1926. Über Zahndurchbruch und Kieferresorption, sowie über das Os sacculi dentis (Aichel). *Anat. Anz.*, 61(1/2): 42–43. Apr. 14, 1926.
–Defends the view that the entire tooth row in manatees and elephants does not really move forward horizontally as generally believed.

Aizu Fossil Research Group: SEE ALSO Kobayashi & Aizu Fossil Res. Group, 1988; Miyazaki et al., 1988.

x Aizu Fossil Research Group

1982. On a fossil Sirenia [sic] from the Shitsubo Formation, Takasato, Yama, Fukushima Prefecture, Northeast Japan. *Earth Science (Chikyu Kagaku)*, 36(5): 282–284. 1 tab. 2 figs. 1 pl.
–In Japanese; Engl. summ. Reports *Dusisiren cf. jordani* from the Late Miocene; a left scapula is illustrated.

Akamatsu, Morio: SEE ALSO Kimura et al., 1983; Kimura & Akamatsu, 1984.

D Akamatsu, Morio

1984. Paleoenvironment of the *Desmostylus*-bearing formations in Hokkaido—with a special reference to the Hobetsu specimen. *Monogr. Assoc. Geol. Collab. in Japan*, 28: 63–68. 1 tab. 2 figs. 1 pl. May 1984.
–In Japanese; Engl. summ. See also T. Kamei (1984).

Akiba, Fumio: SEE Takahashi et al., 1983.

Akiyama, Masahiko: SEE ALSO Inuzuka et al., 1977; Kimura, Akiyama, & Kumano, 1978; Yamaguchi et al., 1981.

D Akiyama, Masahiko; & Kumano, Sumio

1973. A new occurrence of *Desmostylus* teeth from Kamitokushibetsu, Hokkaido. *Jour. Geol. Soc. Japan*, 79(12): 781–786.
–In Japanese; Engl. summ.

Albers, C.F.

1822. *Icones ad illustrandam anatomen comparatum*. Leipzig.
–Fetus of manatee, fasc. 2: 7.

Albrecht, Helmut: SEE ALSO Eichler & Albrecht.

Albrecht, Helmut

1986. Meerminnen [Mermaids]. *Dieren*, 2(6): 178–179. 2 figs.
–In Dutch.

Albrecht, P.

1883. Note sur la présence d'épiphyses terminales sur le corps des vertèbres d'un exemplaire de *Manatus americanus* Desm. *Bull. Mus. Hist. Nat. Belgique*, 2: 35–38. Pl. 2.

Albuja V., Luis: SEE Timm et al., 1986, 1989.

Aldrovandi, Ulisse

1613. *De piscibus libri v. et de cetis lib. vnvs. Ioannes Cornelivs Vterverivs ... collegit ... Hieronymvs Tambvrinv in lucem edidit...* Bononiae [= Bologna], [Ioannem Baptistam] Bellagambam, 732 + [26]. Illus.
–Several later eds. Manatee, 728; fig. (after Clusius) on 729.

Alencar Fernandes, Aducto de: SEE Fernandes, Aducto de Alencar.

Alfaro González, Anastasio

1897. *Mamíferos de Costa Rica*. San José (Costa Rica), Tipografía Nacional.

Alfonso, Gaspar

1735. Relação da viagem e successo que teve a não S. Francisco em que hia por Capitão Vasco da Fonseca na Armada, que foy para a Índia no anno de 1596. In: B. Gomes de Brito, *Historia tragico-maritima, em que se escrevem chronologicamente os naufragios que tiverão as naos de Portugal, depois que se poz em exercicio a navegação da Índia*. Vol. 2. Lisboa Occidental (3 vols., 1735 [–37?]).

x Allen, Glover M.

1923. Additional remains of the fossil dugong of Florida. *Jour. Mamm.*, 4(4): 231–239. 1 fig. Pl. 26. Nov. 1, 1923.
–Discusses fossil sirenians from the Atlantic coast of the U.S. (231–232), and refers new material from the Miocene or Pliocene of Florida to *Metaxytherium floridanum* (232–238, pl. 26).

x Allen, Glover M.

1926. Fossil mammals from South Carolina. *Bull. Mus. Compar. Zool.*, 67(14): 447–467. 5 pls. Jul. 1926.
–Review and synonymy of South Carolina Miocene sirs. (455–459, pls. 2–3), recognizing two species: *Halitherium antiquum* (Leidy) Allen (new combination; 455) and *Metaxytherium manigaulti* (Cope) Allen (new combination, wrongly attributed to Kellogg; 458).

x Allen, Glover M.

1935. The former occurrence of the dugong in Chinese waters. *China Jour.* (Shanghai), 22(2): 79–81. Feb. 1935.
–Calls attention to, quotes, and translates the account of the sea cow in de Goyer & de Keyser

(1665). Comment by Sowerby appended, 81–82 (see Sowerby, 1935).

Allen, Glover M.

1942. Extinct and vanishing mammals of the Western Hemisphere with the marine species of all the oceans.

Spec. Publ., Amer. Comm. Internat. Wild Life Prot., 11: xv + 620. Frontisp., 24 figs.

–Sirs., 528–552.

Allen, Glover M.; & Lawrence, Barbara

1936. Scientific results of an expedition to rain forest regions in eastern Africa. III. Mammals.

Bull. Mus. Compar. Zool., 79: 31–125. 4 pls.

–Sirs., 125.

Allen, Joel Asaph

1871. On the mammals and winter birds of east Florida, with an examination of certain assumed specific characters in birds.

Bull. Mus. Compar. Zool., 2(3): 161–250. 5 pls.

x Allen, Joel Asaph

1882. Preliminary list of works and papers relating to the mammalian orders Cete and Sirenia.

Bull. U.S. Geol. & Geogr. Surv. Terr., 6(3)(Art. 18): 399–562. Aug. 30, 1882.

–A facsimile edition of 500 copies with a 12-page author index (which the original lacked) was published in 1977 by A.D. Lilly, Hythe, Kent, England. That ed. erroneously gives the original date of publication as 1881; the correct date of Aug. 30, 1882 is found on the wrapper of vol. 6, no. 3 of the *Bulletin*, and the year and month are confirmed in the volume's Prefatory Note by F.V. Hayden (pp. iii–iv) and in the table of contents (p. v).

This scholarly bibliography covers the years 1495–1840 and includes 1014 items (two item numbers are duplicated and one is omitted), of which about 230 deal with sirenians. Though of course not “complete” for the period covered (as if any such bibliography ever is), Allen's list is an invaluable source for the very early literature, and his judicious critical annotations are a useful guide to the many editions of these early works as well as to the material they contain. Other attractive features are the detailed transcription of title pages and description of collations, which I have not attempted to reproduce or emulate in the present work.

Allen's foreword, dated Sep. 1881, concludes (p. 401) with the statement that “The attempt has been made to bring the “List” down to the end of the year 1880, but a few later titles have been added, and there are doubtless many deficiencies for the last year of the record.” Hayden's Prefatory

Note explains that the incompleteness of the published version was due to the author's sickness, and this is confirmed by a slip of paper inserted in some copies, which reads: “Owing to the illness of the author, which prevented his revision of the proofsheets, it was necessary to stop the printing of the “List” at the end of the year 1840. The present installment comprises only a little more than one-third of the article; the remainder will be published as soon as the author's health renders it practicable. J. A. ALLEN. *Cambridge, Sept., 1882.*”

Allen much later (*Amer. Mus. Nat. Hist. Bull.*, 24(18): 279–280, 1908) explained that the compilation of this bibliography was intended as a preliminary step toward “a work on the Cetacea and Sirenia of North America, to be published as a volume of the quarto Reports of the United States Geological and Geographical Survey of the Territories [the Hayden Survey].... The preparation of the text of the monograph (on the same general plan as the author's previously published volume on the Pinnipedia) was well advanced, ... [but] was suddenly interrupted by the author's serious illness, resulting in a prolonged period of invalidism. During this interval the “Hayden Survey” ceased to exist, and the reorganized Geological Survey made no provision for the completion of the unfinished zoological work begun under the Hayden Survey. Later other interests engaged the author's attention, and nothing further was done on the proposed monograph of the Cetacea and Sirenia.”

Although Allen lived until 1921, and did eventually publish part of his cetacean manuscript, no more of the sirenian material ever appeared (see *Autobiographical notes and a bibliography of the scientific publications of Joel Asaph Allen*, New York, Amer. Mus. Nat. Hist., ix + 215, 1916). Dr. James G. Mead (pers. comm.) has diligently searched for the unpublished manuscript and proofsheets of the bibliography in various archives, and has established with fair certainty that they were destroyed.

x Allen, Joel Asaph

1902. Zimmermann's “Zoologiae Geographicae” and “Geographische Geschichte” considered in their relation to mammalian nomenclature.

Bull. Amer. Mus. Nat. Hist., 16: 13–22. Jan. 1902. –Notes that *Manati gigas* Zimmermann, 1780 [= *Hydrodamalis gigas*] is “at present recognized in nomenclature”; *Manati* Zimmermann, 1780, is said to be “of even date with *Manatus Storr*” (22).

- x Allen, Joel Asaph
1904. Report on mammals from the district of Santa Marta, Colombia, collected by Mr. Herbert H. Smith, with field notes by Mr. Smith. *Bull. Amer. Mus. Nat. Hist.*, 20: 407-468.
-Brief account by Smith of *Trichechus manatus* occurrences and seasonal hunting along the coast (423).
- x Allen, Joel Asaph
1910. Additional mammals from Nicaragua. *Bull. Amer. Mus. Nat. Hist.*, 28(9): 87-115. Apr. 30, 1910.
-P. 89: {"*Tapirella*, *Trichechus*, and *Mazama* have been recorded north to Mexico."}
-P. 94: {"*Trichechus manatus* Linnaeus. Well known to have been formerly abundant along the eastern coast [of Nicaragua]."}
Allen, John F.: SEE ALSO Budiarto et al., 1979.
- x Allen, John F.; Lépes, Marta M.; Budiarto, Iwan T.; Sumitro, Dr.; & Hammond, D.
1976. Some observations on the biology of the dugong (*Dugong dugong*) from the waters of South Sulawesi. *Aquatic Mammals*, 4(2): 33-48. 3 figs. 4 pls. Sep. 1976.
-Detailed account of captive husbandry and postmortem examinations, including food analyses, parasites, body measurements, organ weights, hematology, etc., of dugongs kept at Jaya Ancol Oceanarium, Jakarta.
- x Allen, John H.
1846. Some facts respecting the geology of Tampa Bay, Florida. *Amer. Jour. Sci.*, (2)1(1)(4): 38-42.
-P. 41: {"There are other beds of marl, apparently of a much more recent origin, one of which extends along the shore at Fort Brooke; it is an earthy mass containing vast quantities of oysters and other shells, extends a few hundred feet back from the shore, and is several feet in thickness. I have seen dug out of it bones of the *Manatus* or sea cow, an animal that still exists in the southern part of the peninsula."} These bones were probably Pleistocene in age.
- Alliger, Marjorie E.
1979. *Cousin to the elephant*. [Publisher?], 1-12. 3 figs. Dec. 1979.
-Children's pamphlet on Florida manatees.
- Allison, Edwin C.: SEE ALSO Durham & Allison, 1960.
- D Allison, Edwin C.
1964. Geology of areas bordering Gulf of California. *Amer. Assoc. Petrol. Geol. Mem.*, 3: 3-29. 2 figs. Sep. 1964.
- x Allsopp, W. Herbert L.
1960. The manatee: ecology and use for weed control. *Nature* (London), 188(4752): 762. Nov. 26, 1960.
-Describes weed control experiments with *T. manatus* in British Guiana. Reprinted in W.A. Dill (1961: 3-4).
- Allsopp, W. Herbert L.
1961. Putting manatees to work. *New Scientist*, 12(263): 548-549. 3 figs. Nov. 30, 1961.
-Weed-clearance in British Guiana.
- Allsopp, W. Herbert L.
1962. Putting manatees to work. *Jour. Brit. Guiana Mus. Zoo*, No. 34: 33-35.
-Weed-clearance in British Guiana.
- x Allsopp, W. Herbert L.
1969. Aquatic weed control by manatees—its prospects and problems. In: L.E. Obeng (ed.), *Man-made lakes*. Accra, Ghana Univ. Press (398 pp.), 344-351.
-Account of weed-control experiments in Guyana and elsewhere, including species of plants eaten and sizes of areas cleared.
- Almeida, António de
1960. Sereias de Além-Mar. *Mem. Acad. Ciênc. Lisboa, Classe de Ciênc.*, 8: 3-31. 2 figs. Read Jul. 3, 1958.
- x Almeida, António de
1971. Novos aspectos da etnozootologia timorense. *Mem. Acad. Ciênc. Lisboa, Classe de Ciênc.*, 15: 205-221.
-Brief account of legends relating to dugongs and of use of dugong meat, hide, oil, teeth, and "tears" in Timor (209, 211-212, 220).
- Almera, D. Jaime
1896. Sobre la serie de mamíferos fósiles descubiertos en Cataluña. *Mem. Acad. Cienc. Artes Barcelona*, (3)2: 251-257.
- Almera, D. Jaime
1897. Reconocimiento de la presencia del primer piso mediterráneo en el Panadès. *Mem. Acad. Cienc. Artes Barcelona*, (3)1(20): 349-394. 1 chart. 6 figs. Read Jun. 30, 1896.
- Almera, D. Jaime
1898. Enumération des mammifères fossiles découverts en Catalogne. *C.R. IV Congr. Sci. Internat. des Cathol.* (Fribourg, Aug. 16-20, 1897), 1-5.
- Almera, D. Jaime
1899a. Compte rendu de l'excursion du samedi 8 Oct. à Castellví de la Marca, au Vallon de San-Pau d'Ordal et à San Sadurní de Noya. *Bull. Soc. Géol. France*, (3)26: 840-852.

- Almera, D. Jaime
1899b. Compte rendu de l'excursion du vendredi 7 Octobre aux environs de Villanova et de Vilafranca.
Bull. Soc. Géol. France, (3)26: 812–822.
- x Almera, D. Jaime
1906. Descripción geológica y génesis de la Plana de Vich acompañada de su mapa topográfico geológico a la escala de 1/30000:
Mem. Acad. Cienc. Artes Barcelona, (3)5(20): 347–399. 1 map. Apr. 1906.
–Records "*Halitherium* sp." from Lutetian (Middle Eocene) deposits at Serras de Cánoves á Puiglagulla, Spain (379).
- Alston, Edward R.
1879–82 *Biologia Centrali-Americana. Mammalia*.
London, R.H. Porter, xx + 220. 22 pls.
–Manatee, vi, xi, xvii, 90–96, pl. 7.
- Altichieri, L.
1980. Il giacimento de Monte Duello. In: G. Parisi et al. (eds.), *I vertebrati fossili italiani: catalogo della mostra*, Verona 1980.
Verona, Commune di Verona, 156–160.
- Altman, Jennifer: SEE Teunissen & Altman, 1986.
- x Alvarez, Ticul
1963. The Recent mammals of Tamaulipas, Mexico.
Univ. Kansas Publ. Mus. Nat. Hist., 14(15): 363–473. 5 figs. May 20, 1963.
–Quotes Miller & Kellogg's (1955: 791) record of *T. m. latirostris* from the mouth of the Rio Grande; considers the species "probably extirpated in state" of Tamaulipas (465).
- x Alviano, Fidélis de
1945. *Gramática, dicionário, verbos e frases e vocabulário prático da lingua dos índios Ticunas*.
Rio de Janeiro, Impr. Nac., 1–227.
–Reprinted from *Rev. Inst. Hist. Geogr. Brasil.*, 183: 3–194, 1944. The Ticuna word for the manatee is given as *ái-rué* (127).
- Alvinerie, J.; Anglada, R.; & Caralp, M.
1977. Stratotype et parastratotype de l'Aquitanién.
Les Stratotypes Français (Paris, CNRS), 4: 1–105.
- Amaral, Angelo Thomaz do
1858. Falla dirigida á Assembléa Legislativa Provincial do Amazonas em o 1o. de Outubro de 1857 pelo Presidente da Provincia... Reprinted in collected *Relatorios da Presidencia do Amazonas*, 1852–1858.
Rio de Janeiro, Typ. Universal de Laemmert, 576–665. Dec. 1905.
- Ambrose, J.D.: SEE Krishna Pillai et al., 1989.
- x Ameghino, Florentino
1883. Sobre una coleccion de mamíferos fósiles del piso mesopotámico de la formación patagónica, recogidos en las barrancas del Paraná por el profesor Pedro Scalabrini.
Bol. Acad. Nac. Cienc. Córdoba, 5(1): 101–116.
–Repr. in Ameghino's collected *Obras*, vol. 4: 87–97, 1915. *Ribodon limbato* [sic], n.gen.n.sp., is described on the basis of a single upper molar, thought to represent a perissodactyl of Lower Oligocene age (112–113; *Obras*, 94–95). Its age is now considered Mio-Pliocene.
- x Ameghino, Florentino
1885. Nuevos restos de mamíferos fósiles oligocenos recogidos por el profesor Pedro Scalabrini y pertenecientes al Museo Provincial de la Ciudad del Paraná.
Bol. Acad. Cienc. Córdoba, 8: 5–207.
–Repr. in Ameghino's *Obras*, vol. 5: 7–146. Reports three new upper molars of *Ribodon limbatus*, which he still considers an Oligocene tapiroid (100–105). The spelling of the specific name is here corrected from "*limbato*."
- x Ameghino, Florentino
1886. Contribuciones al conocimiento de los mamíferos fósiles de los terrenos terciarios antiguos del Paraná.
Bol. Acad. Cienc. Córdoba, 9: 1–228.
–Repr. in Ameghino's *Obras*, vol. 5: 179–325. Describes additional teeth of the supposed tapiroid *Ribodon limbatus*, contrasting it with *Hyrachyus* and *Listriodon* (147–151). Also describes as a tapiroid, and a close relative of *Ribodon*, the new genus and species *Antaodon cinctus* (151ff.), later thought by some to be a sir. but now considered a tayassuid.
- Ameghino, Florentino
1889. Contribución al conocimiento de los mamíferos fósiles de la República Argentina: obra escrita bajo los auspicios de la Academia Nacional de Ciencias de la República Argentina para presentarla a la Exposición Universal de Paris de 1889.
Actas Acad. Nac. Cienc. Córdoba, 6: xxxiii + 1027. Atlas, pls. 1–98. May 20, 1889.
–Repr. in Ameghino's *Obras*, vols. 6–9. Also published separately.
- Ameghino, Florentino
1891. Determinación de algunos jalones para la restauración de las antiguas conexiones del continente sud-americano.
Rev. Argent. Hist. Nat., 1: 282–288.
–?Repr.: *Crónica Cienc.* (Barcelona), 14: 399–405; also in Ameghino's *Obras*, vol. 10: 285–290, 1918. A letter to H. von Ihering, mentioning *Ribodon*.

Ameghino, Florentino

1893. Les mammifères fossiles de la Patagonie australe. [With footnotes by E. Trouessart.] *Rev. Sci. (Paris)*, (3)30(1): 13–17.
–Repr. in Ameghino's *Obras*, vol. 10: 503–521, 535–545 (with Engl. and Spanish transl.). Engl. transl.: *Amer. Naturalist*, 27: 445–449?

Ameghino, Florentino

1904. Paleontologia Argentina. *Publ. Univ. de La Plata, Fac. Cienc. Fís.-mat.*, No. 2: 1–79. 72 figs.
–Repr. in Ameghino's *Obras*, vol. 15: 7–91.

Ameghino, Florentino

1906. Les formations sédimentaires du Crétacé supérieur et du Tertiaire de Patagonie. *An. Mus. Nac. Buenos Aires*, (3)8: 1–568. 358 figs. 3 pls.
–Repr. in Ameghino's *Obras*, vol. 16. Revs.: *Nature (London)*, 77: 68?; *Rev. Anthropol.*, 17: 354–357, 388–393, 1907, 18: 20–30, 1908?

Amoroso, E.C.: SEE Ronald et al., 1978.

Amprino, Rodolfo; & Godina, Giovanni

1947. La struttura delle ossa nei vertebrati: ricerche comparative negli anfibi e negli amnioti. *Commentats. Pontif. Acad. Sci.*, 11(9): 329–464. 47 pls.

Anchieta, José de

1799. *Josephi de Anchieta epistola, quam plurimarum rerum naturalium quae S. Vicentii (nunc S. Pauli) provinciam incolunt sistens descriptionem*. Lisbon, Typis Academiae, 2 + 49 + 1.
–Manatees in Espírito Santo, Brazil, mentioned in a letter dated at São Vicente, May 31, 1560; Portuguese transl.: Anchieta (1933).

x Anchieta, José de

1900. *Carta fazendo a descrição das inumeras coisas naturais, que se encontram na provincia de S. Vicente hoje S. Paulo seguida de outras cartas ineditas escriptas da Bahia pelo veneravel Padre José de Anchieta e copiadas do Archivo da Companhia de Jesus. Traduzidas do Latim pelo Professor João Vieira de Almeida com um prefacio pelo Dr. Augusto Cesar de Miranda Azevedo*. São Paulo, Typ. da Casa Eclectica, 1–69.
–Brief account of the manatee that is said to occur at the city of “Espírito Sancto,” Brazil, and elsewhere to the north (hence *T. manatus*), and its use for meat and oil (11–12). Mentions the vernacular names *Boi marinha* and *Iguaraguá* (11).

Anchieta, José de

1933. [Carta] Ao Padre Geral de São Vicente, ao ultimo de Maio de 1560. In: *Cartas, informações,*

fragmentos historicos e sermões do Padre Joseph de Anchieta, S.J. (1554–1594).

Rio de Janeiro, Civilização Brasileira (567 pp.): 107–108.

–Portuguese transl. of the letter mentioned in Anchieta (1799). The first Portuguese transl. of this letter appeared in *Ann. Bibliotheca Nac.* (Rio de Janeiro), 1: 279, 1876. Engl. transl.: Whitehead (1977: 170).

Andersen, H.T.: SEE ALSO Kooyman & Andersen, 1969.

Andersen, H.T.

1966. Physiological adaptations in diving vertebrates. *Physiol. Rev.*, 46: 212.

Anderson, Elaine: SEE ALSO Kurtén & Anderson, 1980.

Anderson, Elaine

1984. Who's who in the Pleistocene: a mammalian bestiary. In: P.S. Martin & R.G. Klein (eds.), *Quaternary extinctions: a prehistoric revolution*. Tucson, Univ. Arizona Press (x + 892): 40–89. Illus.
–Gen. acc. of *Hydrodamalis gigas* (82–83) and *Trichechus* (83).

D Anderson, F.M.

1911. The Neocene deposits of Kern River, Calif., and the Temblor basin. *Proc. Calif. Acad. Sci.*, (4)3: 73–148. Pls. 2–13.

Anderson, Gordon R.V.

1988. Perceptions of plenty: approaches to the management of migratory and non-migratory species subject to traditional subsistence hunting. In: F. Gray & L. Zann (eds.), *Traditional knowledge of the marine environment in northern Australia*. Proceedings of a workshop held in Townsville, Australia, 29 and 30 July 1985. *Great Barrier Reef Marine Park Workshop Ser.*, No. 8: 176–187.

Anderson, H.F.: SEE Patton et al., 1989.

Anderson, John; & De Winton, W.E.

1902. *Zoology of Egypt. Vol. II. Mammalia*. London, Hugh Rees, Ltd., xvii + 374. 66 pls. 1 map.
–Dugong, 359–360.

Anderson, Paul K.: SEE ALSO Brownell, Anderson et al., 1981; Heinsohn et al.; Marsh & Anderson, 1983; Packard, Rathbun et al., 1984; Prince et al., 1981.

x Anderson, Paul K.

1979. Dugong behavior: On being a marine mammalian grazer. *Biologist*, 61(4): 113–144. 10 figs. Nov. 1979.
–Excellent review of dugong ethology with many thought-provoking ideas and speculations, including observations on anatomy, locomotion, respiration and diving, feeding, social interactions, reproduction, defense against predators, resting

and calving sites, responses to humans, daily and seasonal movements, and critical aspects of dugong habitat.

- x Anderson, Paul K.
1981a. The behavior of the dugong (*Dugong dugon*) in relation to conservation and management. *Bull. Mar. Sci.*, 31(3): 640–647. Jul. 1981.
–Abstr.: *Symp. Biol. Manage. Mangroves Trop. Shallow Water Communities*, 2: 15, 1980. Review of selected aspects of dugong behavior (patterns of habitat use, modes of foraging, diel activity cycles, surfacing and diving, net entanglement, responses to boats and divers, social behavior, and capture myopathy) with comments on the implications of each for conservation and management.
- x Anderson, Paul K.
1981b. Dugong behaviour: observations, extrapolations and speculations. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.). [Townsville (Australia)], James Cook Univ. (vii + 400): 91–111. 2 figs.
–Reviews present knowledge of dugong behavior, mostly citing earlier reports, and contrasts it with comparable published data on manatees.
- x Anderson, Paul K.
1982a. Studies of dugongs at Shark Bay, Western Australia. I. Analysis of population size, composition, dispersion and habitat use on the basis of aerial survey. *Austral. Wildl. Res.*, 9: 69–84. 6 tabs. 5 figs.
–Presents the results of aerial surveys in Shark Bay, principally on the east coast of Dirk Hartog Island. Estimates a population of at least 923 dugongs in the entire bay (including 10.3%–12.6% calves); shows evidence of seasonal movements; and discusses dugong aggregations and their interactions with sharks.
- x Anderson, Paul K.
1982b. Studies of dugongs at Shark Bay, Western Australia. II. Surface and subsurface observations. *Austral. Wildl. Res.*, 9: 85–99. 1 tab. 3 figs.
–Describes in detail the responses of dugongs to the presence of boats, divers, and dolphins; feeding on *Amphibolis*; surfacing and diving, swimming, local movements, cow-calf relationships, and vocalizations and the lack thereof. Notes possible commensal feeding of cormorants with dugongs (94), and compares herding behavior of dugongs with that of plains ungulates (97–98).
- x Anderson, Paul K.
1984a. Suckling in *Dugong dugon*. *Jour. Mamm.*, 65(3): 510–511. Aug. 24, 1984.
–Calves observed at Shark Bay, Australia, most often suckled in an inverted position, unlike manatees; and cows continued other activities during nursing.
- Anderson, Paul K.
1984b. Migration, dietary quality, and winter movements in a subtropical dugong population. [Abstr.] *Bull. Ecol. Soc. Amer.*, 65(2): 158. June 1984.
- x Anderson, Paul K.
1984c. Observations on the behavior and ecology of dugongs on the coast of Queensland. *Natl. Geogr. Soc. Res. Rept.*, 16: 37–42.
–A gen. acc., summarizing some of the results of Anderson & Birtles (1978).
- Anderson, Paul K.
1985. What one scientist doesn't know about dugongs and would like to learn. *Sunrise* (Kuwait Airways), Jul. 1985: 17. 1 fig.
- x Anderson, Paul K.
1986a. Dugongs of Shark Bay, Australia—seasonal migration, water temperature, and forage. *Natl. Geogr. Res.*, 2(4): 473–490. 3 tabs. 8 figs.
–Demonstrates that seasonal movements within the bay are controlled by temperature, and discusses the nutritional implications of the resultant shifting between a summer diet of *Halodule* and a less favorable winter diet of *Amphibolis*. Thermal tolerances of dugongs appeared similar to those of manatees.
- Anderson, Paul K.
1986b. Dugongs: mermaids of the Arabian seas. *Sheraton*, 2(6): 44–49. 9 figs.
- Anderson, Paul K.
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- Anderson, Paul K.
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Paris, Librairie Ancienne Honoré Champion.
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Attenborough, David

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Natl. Geogr. Mag., 111(6): 850-874. Illus. Jun. 1957.

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Internatl. Zoo Yearbook, 7: 221.
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Acta Amaz., 9(4), Supl.: 81-101. 4 tabs. 5 figs.
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 -Reports that manatee milk is higher in lipid, protein, and salt content than bovine milk, but contains no lactose.
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 -Pp. 368-369: {"The Blacks do not kill the Porpoises, because they shew where there are fish to be caught; but they value the flesh of another cetaceous animal, called here [near Brisbane] Youngon, the Dugong of India, *Halicore Dugong*. This animal feeds on marine vegetables; and is [369] taken when it goes up narrow creeks, by means of nets, skilfully made of the bark of various species of *Hibiscus*." }
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 -Allen 929. In French? Extract from v. Baer (1840).
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 -Allen 977. Published 1839, according to Romer's *Bibliography of fossil vertebrates*... Concludes that the sea cow was limited to the Commander and possibly Aleutian Islands, and was exterminated by 1768.
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x Bartmann, W.

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1969. Rinvenimento di un sirenio nei Colli Berici (Vicenza). *Atti Accad. Naz. Lincei, Rendiconti (Class. Sci. Fis. Mat. Nat.)*, (8)47(1/2): 39–40. 1 pl. Jul.–Aug. 1969 (read Jun. 12, 1969).
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Bartone, John C.: SEE Kaiser & Bartone.

x Bartram, William

1791. *Travels through North & South Carolina, Georgia, East & West Florida, the Cherokee country, the extensive territories of the Muscogulges, or Creek Confederacy, and the country of the Chactaws....*
Philadelphia, James & Johnson, xi + 522.
—Repr.: London, J. Johnson, 1792; facsimile ed., Charlottesville, Univ. Press of Virginia, 1973. Later eds.: Macy-Masius, 1928 (reprinted by Dover Publs., 1955); Yale, 1958. Records that *T. manatus* is hunted by Indians at Manatee Spring in northern Florida, and called “by a name which signifies the big beaver” (231–232). For an earlier

MS. version of the same material, see Bartram (1943).

Bartram, William

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Baskin, Jon A.: SEE Webb et al., 1981.

Bastian, Jarvis: SEE Evans & Bastian, 1969.

Bastos, Aureliano Candido Tavares

1866. *O valle do Amazonas: estudo sobre a livre navegação do Amazonas, estatística, produções, commercio, questões fiscaes do valle do Amazonas...*
Rio de Janeiro, B.L. Garnier, xxiii + 369. Dec. 1866.
-Ed. 2: São Paulo, Cia. Ed. Nacional, 1-411, 1937.

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1918. Mamífers fòssils de Catalunya.
Treballs de la Inst. Catalana de Hist. Nat. (Barcelona), 4: 111-272. Tabs. 35 figs. Pls. 4-22.

x Bataller, José Ramón

1956. Contribución al conocimiento de los vertebrados terciarios de España.
Cursillos y Confer., Inst. "Lucas Mallada," 1954(3): 11-28. 1 fig. 8 pls.
-Illustrates a skull and mandible of "*Halitherium fossile (Metaxitherium cuvieri)*" from the Miocene of Spain (pls. 6-8) and lists the species' Miocene (Helvetian and Burdigalian) occurrences in Spain (24-25). Also lists "*Halitherium*" vertebrae and ribs from the Eocene (Lutetian and Bartonian) (25).

x Bates, Henry Walter

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-Account of a manatee harpooned and cooked on the Amazon (2: 165).

Batravi, A.

1953. The external features of the dugong kidney.
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1957. The structure of the dugong kidney.
Publ. Marine Biol. Station Al-Ghardaqa Red Sea, No. 9: 51-68. 2 figs. 2 pls.

Battail, Bernard: SEE Thomas et al., 1985.

Bauchot, Roland; & Stephan, Heinz

1968. Etude des modifications encephaliques observées chez les insectivores adaptés à la recherche de

nourriture en milieu aquatique.

Mammalia, 32(2): 228-275. 2 tabs. 16 figs. (figs. 1-7 on pls. 19-20). Jun. 1968.

-Engl. & German summs. *Sirs.*, 242-243.

Baudin, Nicolas

1974. *The journal of Post Captain Nicolas Baudin, commander-in-chief of the corvettes Géographe and Naturaliste, assigned by order of the Government to a voyage of discovery. Translated from the French by Christine Cornell.*
Adelaide, Libraries Board of South Australia, xx + 609. Maps.
-Early mention of dugong in Western Australia, 513.

Baugh, Thomas M.

1987. Man and manatee: planning for the future.
Endangered Species Tech. Bull. (U.S. Fish & Wildl. Serv.), 12(9): 7.

x Baugh, Thomas M.; Valade, James A.; & Zoodsma, Barbara Jo

1989. Manatee use of *Spartina alterniflora* in Cumberland Sound.
Mar. Mamm. Sci., 5(1): 88-90. Jan. 1989.

-Reports behavioral observations of manatees feeding on salt marsh cordgrass, the only generally available species of emergent vegetation in the Cumberland Sound area of Georgia and Florida. Also discusses feeding on this species elsewhere in the range of *T. manatus*.

x Baughman, J.L.

1946. Some early notices on American manatees and the mode of their capture.
Jour. Mamm., 27(3): 234-239. Aug. 14, 1946.
-Collection of old accounts of manatees and manatee hunting in the New World.

Baumann, O.

- 1905? Sirene: eine naturhistorische Kuriosität.
Natur und Glaube, 1905[?]: 269-272.

Baur, George

- 1887a. Über die Abstammung der amnioten Wirbelthiere.
Biol. Centralbl., 7: 481-493.
-?Repr.: *Sitzb. Ges. Morph. Phys.* (Munich), 1887: 44-61.

x Baur, George

- 1887b. On the morphology and origin of the Ichthyopterygia.
Amer. Naturalist, 21: 837-840.
-Rev.: *Geol. Mag.*, (3)5: 325-326, 1888? Reports hyperphalangy (four phalanges on one digit) in individuals of *Manatus americanus* and *Halicore dugong* (840).

x Bauzá, Juan

1946. Contribución a la geología y paleontología de Mallorca.

Bol. Soc. Españ. Hist. Nat., 44(5/6): 369–380.
Pls. 18–19.

—Reports a lower molar of “*Metaxitherium cuvieri*” reported from the Miocene of Sa Taulera (Santa Margarita) (376, pl. 18).

x Bay, D.; & Demoulin, V.

1989. The seagrass beds of Hansa Bay (north coast of Papua New Guinea).

Bull. Soc. Roy. Bot. Belg., 122(1): 3–17. 4 tabs. 6 figs.

—French summ. Mentions the presence of dugongs in the study area (12).

x Bayer, Frederick M.; & Harry-Rofen, Robert R.

1957. Project Coral Fish looks at Palau.

Ann. Rept. Smithson. Inst., 1956: 481–508. 6 figs. 20 pls.

—Describes the fauna of the eel-grass (*Enhalus acoroides*) environment (501–502), and the capture of a Palauan dugong for the Steinhart Aquarium (502, pl. 20).

x Baylis, H.A.

1936. Some parasitic worms from the British Cameroons.

Ann. Mag. Nat. Hist., (10)17: 257–272.

—Reports *Chiorchis fabaceus* from the intestines of a manatee in Nigeria (257).

Baylis, H.A.; & Daubney, R.

1923. A further report on parasitic nematodes in the collection of the zoological survey of India.

Rec. Indian Mus. Calcutta, 25: 551–578.

—Reports *Dujardinia halicoris* from the dugong.

x Bayliss, Peter

1986. Factors affecting aerial surveys of marine fauna, and their relationship to a census of dugongs in the coastal waters of the Northern Territory.

Austral. Wildl. Res., 13(1): 27–37. 5 tabs. 3 figs.

—Reports on experiments to determine the effects on survey results of environmental conditions and survey techniques, and to derive correction factors. A dugong census of the Northern Territory, Australia, between the Daly River and Mililingimbi in December 1983 yielded a minimum estimate of 2593 ± 530 and a total population estimate of 38,000, the highest densities being associated with shallow and sheltered waters.

x Bayliss, Peter; & Freeland, W.J.

1989. Seasonal distribution and abundance of dugongs in the western Gulf of Carpentaria.

Austral. Wildl. Res., 16(2): 141–149. 5 tabs. 4 figs.

—Aerial surveys in 1984–85 showed no major seasonal changes in distribution and relative abundance. Minimum population sizes of 16,816

± 2946 (dry season) and $16,846 \pm 3257$ (wet season) were calculated. Abundance was correlated with area of available seagrass beds. Catch rate by Aboriginal hunters declined from about 60 to 10 per year between the 1960s and 1985, possibly due to excessive hunting, but the present harvest rate appears to be sustainable.

x Bazzini, Maria D.; Reynolds, John E., III; & Essman, Richard A.

1984. Hemopoiesis in the West Indian manatee, *Trichechus manatus*. [Abstr.]

Florida Scientist, 47(Suppl. 1): 19.

—The vertebral bodies were found to be the primary site of hemopoiesis.

x Bazzini, Maria D.; Reynolds, John E., III; & Essman, Richard A.

1986. Erythropoiesis and granulopoiesis in the West Indian manatee, *Trichechus manatus* (Mammalia: Sirenia).

Acta Anat., 126(3): 150–152. 2 figs.

—Concludes from the presence of erythroblasts, megakaryocytes, and myelocytes in the vertebral bodies that the latter are the main site of blood cell formation. Some developing blood cells were also found (rarely) in manatee livers, spleens, and kidneys. Notes the abundance of lymphatic tissue, especially mesenteric lymph nodes, in the manatee.

Beadnell, Hugh John Llewellyn

1905. *The topography and geology of the Fayum Province of Egypt*.

Cairo, Survey Dept. of Egypt, 1–101. 24 pls.

—Abstr.: *Nature* (London), 72: 535–536, 2 figs.

Beal, William P.B.

1922. [The manatee as a food animal.]

Jour. Gold Coast Agric. & Commercial Soc., 2: [pp.?] Oct.–Dec. 1922.

x Beal, William P.B.

1939. The manatee as a food animal.

Nigerian Field, 8(3): 124–126.

—Said to be an extract from Beal (1922), this is also a summary of Ménégaux (1918). It gives a gen. acc. of *Manatus senegalensis*, its distribution, supposed breeding and food habits, and the possibility of raising it in captivity for its meat, oil, and bones.

Beard, Daniel B.; Lincoln, Frederick C.; Cahalane, Victor H.; Jackson, Hartley H.T.; & Thompson, Ben H.

1942. *Fading trails: the story of endangered American wildlife*.

New York, Macmillan, xv + 279. Illus.

—Manatees, 88–97.

Beaux, O. de

1931. Mammiferi. In: *Spedizione del barone Raimondo*

Franchette in Dancalia.

Ann. Mus. Civ. Stor. Nat. Giacomo Doria, Genova, 55: 183–217.

–Account of *Dugong hemprichi*, 214–215.

Bechamel, Francis: SEE Grillet & Bechamel, 1698.

Bechstein, Johann Matthäus

1795. *Compend. Bibliothek*. 21 (Zoologie I).

[Publisher?]

–I have been unable to verify or amplify this citation beyond the above information, given in Sherborn's nomenclator, where the name *Manatus vulgaris* is said to appear on p. 113 of this work.

Bechstein, Johann Matthäus

1800. *Thomas Pennant's Allgemeine Uebersicht der vierfüssigen Thiere*.

Weimar, im Verlage des Industrie-Comptoir's, Vol. 2: x + 323–766.

–Describes *Manatus Guyannensis*, n.sp., *M. Oronocensis*, n.sp., and *M. Clusii*, n.comb., 732.

Bechstein, Johann Matthäus

1801. *Gemeinnützige Naturgeschichte Deutschlands nach allen drei Reichen. Ein Handbuch zur deutlichen und vollständigen Selbstbelehrung besonders für Forstmänner, Jugendlehrer und Oekonomen. Band 1*. Ed. 2.

Leipzig, Siegfried Lebrecht Crusius (5 parts in 4 vols., 1801–09).

–Discusses *Manati balaenurus*, 1: 215.

Beck, Cathy A.: SEE ALSO Bonde et al., 1983; Bonde & Beck, 1990; Buergelt et al., 1984, 1990; Forrester et al., 1979; Hurst & Beck, 1988; O'Shea, Beck et al., 1985.

x Beck, Cathy A.; & Barros, Nélio B.

1991. The impact of debris on the Florida manatee. *Marine Pollution Bull.*, 22(10): 508–510. 1 fig. Oct. 1991.

–Summarizes carcass-salvage data (1974–86) showing debris ingestion or entanglement.

x Beck, Cathy A.; Bonde, Robert K.; & Odell, Daniel Keith
1981. Manatee mortality in Florida during 1978. In: R.L. Brownell, Jr., & K. Ralls (eds.), *The West Indian manatee in Florida. Proceedings of a workshop held in Orlando, Florida, 27–29 March 1978* (q.v.).

Tallahassee, Florida Dept. Nat. Res. (iv + 154), 76–85. 4 tabs. 1 fig.

–Tabulates county, date, body length, sex, cause of death, and other data on 78 carcasses necropsied. 39.7% of the deaths were attributed to human activity.

x Beck, Cathy A.; Bonde, Robert K.; & Rathbun, Galen B.
1982. Analyses of propeller wounds on manatees in Florida.

Jour. Wildl. Manage., 46(2): 531–535. 3 figs. Apr. 1982.

–Concludes from the sizes of propeller wounds that most manatee mortality attributed to propeller strikes is caused by large (>7.3 m) boats with inboard engines and propellers >38 cm in diameter.

x Beck, Cathy A.; & Forrester, Donald J.

1988. Helminths of the Florida manatee, *Trichechus manatus latirostris*, with a discussion and summary of the parasites of sirenians.

Jour. Parasitol., 74(4): 628–637. Aug. 1988.

–Reports the geographic and anatomical distribution and intensity of infestation of parasites in carcasses of Florida manatees, lists all reported sir. parasites, and speculates on the intermediate hosts of the common manatee parasites.

Beckett, Jeremy

1987. *Torres Strait Islanders: custom and colonialism*. Cambridge, Cambridge Univ. Press, xiii + 251. 10 pls. 2 maps.

–Contains several observations on the role of dugong hunting in the Islander culture and economy (28, 150, 159–161, 181).

x Beckjord, Jon-Erik

1985. Ri evidence lacking (comment on Wagner [1982], and Wagner et al. [1983]).

Cryptozoology, 3: 154–155. Apr. 1985.

–Argues, on the basis of new interviews, that the “ri” of New Ireland is a dugong. See R. Wagner (1985) for response.

x Beddard, Frank Evers

1897. Notes upon the anatomy of a manatee (*Manatus inunguis*) lately living in the Society's gardens.

Proc. Zool. Soc. London, 1897(1): 47–53. 5 figs. Jun. 1897.

–Compares the digestive system, kidney, heart, and brain of *M. inunguis* with those of *M. latirostris*.

Beddard, Frank Evers

1900. *A book of whales*.

New York, G.P. Putnam's Sons; London, John Murray, xv + 320. 40 figs.

Beddard, Frank Evers

1902. *Mammalia*. In: *Cambridge Natural History*.

London & New York, Macmillan, Vol. 10: x + 605. 285 figs.

–Reprinted 1968. *Sirs.*, 333–338.

Beebe, C.W.: SEE Beebe, M.B.

Beebe, M.B.; & Beebe, C.W.

1910. *Our search for a wilderness*.

New York, Henry Holt & Co., 1–408.

–Manatees, 125, 170, 221–222, 224, 381.

Beebe, William

1919. Higher vertebrates of British Guiana with special reference to the fauna of Bartica District. [List of

- Amphibia, Reptilia, and Mammalia.]
Zoologica (New York), 2(7): 205–227. May 1919.
 –Lists *T. manatus* among British Guiana mammals (226).
- x Beebe, William
 1920. A tropic garden.
Atlantic Monthly, 126: 730–736. Dec. 1920.
 –Repr. in Beebe (1921). A charming account of manatee-watching in the Georgetown (British Guiana) Botanical Gardens (730–732).
- Beebe, William
 1921. *Edge of the Jungle*.
 Garden City (New York), Garden City Publ. Co.;
 New York, H. Holt & Co., 3–303. Frontisp.
 –Several later eds. Manatee, 231–236 (repr. of Beebe, 1920).
- x Beeckman, Daniel
 1812. A voyage to and from the island of Borneo, in the East Indies; with a description of the said island; giving an account of the inhabitants, their manners, customs, religion, product, chief ports, and trade: together with the re-establishment of the English trade there, An. 1714, after our factory had been destroyed by the Banjareens some years before. Also a description of the islands of Canary, Cape Verd, Java, Madura; of the Streights of Bally, the Cape of Good Hope, the Hottentots, the island of St. Helena, Ascension, &c. With some remarks and directions touching trade, &c. The whole very pleasant and very useful to such as shall have occasion to go into those parts. In: J. Pinkerton (ed.), *A general collection of . . . voyages and travels . . .*
 London, Longman, Hurst, Rees, Orme, & Brown and Cadell & Davies, Vol. 11: 96–158.
 –Ed. 1: London, 1718. Briefly describes “an amphibious creature, called by them manitee, or a sea-cow,” encountered at the Cape of Good Hope (150–151), which is obviously the hippopotamus. It is worth noting here the confusing South African usage of these terms (e.g., Afrikaans *seekoei*) for the hippo, which probably accounts for some early writers’ attribution to the dugong and/or manatee of a range including the Cape of Good Hope.
- Beeler, I.E.; & O’Shea, Thomas J.
 1988. *Distribution and mortality of the West Indian manatee (Trichechus manatus) in the southeastern United States: A compilation and review of recent information*. NTIS Document No. PB 88-207980/AS (2 vols.), 1–613. Illus.
 –Also published as *Natl. Ecology Research Center Rept.*, No. 88-09: xv + 613, 1988.
- x Begley, Sharon; Carey, John; & Callcott, John
 1983. Death of the Persian Gulf.
Newsweek, 102(4): 79. 3 figs. Jul. 25, 1983.
 –Report on dugongs and other organisms killed by an oil spill from the Nowruz oilfield, Iran.
- Bélanger, Leonard F.
 1940. A study of the histological structure of the respiratory portion of the lungs of aquatic mammals.
Amer. Jour. Anat., 67(3): 437–465. 2 figs. 4 pls.
 –Describes the lung histology of the manatee.
- Belitsky, David W.: SEE ALSO Powell et al., 1981.
- Belitsky, David W.; & Belitsky, Cheryl L.
 1978. El manatí, *Trichechus manatus*, en la República Dominicana: distribución y abundancia.
Serie de Publicaciones Científicas, Dirección Nacional de Parques (Repúb. Domin.), No. 1: 7–36. 5 tabs. 5 figs. 6 appendices of other tabs. & figs. Mar. 1978.
- x Belitsky, David W.; & Belitsky, Cheryl L.
 1980. Distribution and abundance of manatees *Trichechus manatus* in the Dominican Republic.
Biol. Conserv., 17(4): 313–319. 2 figs. May 1980.
 –Aerial surveys and interviews demonstrated that populations exist on the north and southwest coasts; calves were seen year-round; evidence was found of poaching, possible shark predation, possible coastwise movements and use of freshwater upwellings, but little if any use of rivers by manatees.
- Bell, Alexander Graham: SEE Fairchild, D., 1917.
- Bell, Charles Napier
 1862. Remarks on the Mosquito territory, its climate, people, productions.
Jour. Roy. Geogr. Soc., 32: 242–268.
- Bell, Charles Napier
 1899. *Tangweera; life and adventures among gentle savages*.
 London, Edward Arnold, xi + 318. 6 pls.
 –Mosquito Indians, Central America.
- x Bell, Thomas
 1837. *A history of British quadrupeds, including the Cetacea*.
 London, John Van Voorst, xviii + 526. Illus.
 –Allen 907. Notice of two strandings of carcasses of “*Manatus borealis*” in the British Isles (525). One record is based on the accounts of Stewart (1801) and Fleming (1828); no details are given about the other.
- x Bellin, Jacques Nicolas
 1763. *Déscription géographique de la Guyane. Contenant les possessions et les établissemens des François, des Espagnols, des Portugais, des Hollandois dans ces vastes pays. Le climat les*

productions de la terre et les animaux leurs habitans, leurs moeurs, leurs coutumes. et le commerce qu'on y peut faire. Avec des remarques pour la navigation et des cartes, plans, et figures, dressées au Dépôt des Cartes et Plans de la Marine par ordre de M le Duc de Choiseul Colonel Général des Suisses et Grisons, Ministre de la Guerre et de la Marine.

Paris, Impr. de Didot, xiv + 294. 10 pls. Maps & plans.

—Allen 287. Brief description (taken directly from Gumilla) of the manatee in the Guianas (65–66). The scene of Indians harpooning a manatee and the illustration of a female with its young (pl. 5) are taken from Labat (1722), according to Allen.

Belmar, A. de

1861. *Voyage aux provinces brésiliennes du Pará et des Amazonas en 1860, précédé d'une rapide coup d'oeil, sur le littoral du Brésil.*

London, Trezise, 1–236.

—Gen. acc. of the manatee and its use by natives (118–119).

Beltran de Santa Rosa Maria, Pedro

1859. *Arte del idioma Maya reducido a sucintas reglas, y semilexicon Yucateco.* Ed. 2.

Merida de Yucatan, José D. Espinosa, [16] + 242. 2 tabs. Jul. 1859.

—Ed. 1, Mexico, 1746. Gives *chiil* and *tek* as Maya names of the manatee (230).

Beneden, Pierre Joseph van: SEE Van Beneden, Pierre Joseph.

Bengtson, John L.: SEE ALSO Medway, Bruss et al., 1982.

x Bengtson, John L.

1982. Ecology of manatees (*Trichechus manatus*) in the St. Johns River, Florida. [Abstr.] *Dissert. Abstrs. Internatl., B. Sci. Eng.*, 42(12): 4668. Jun. 1982.

—Describes daily and seasonal movements in response to temperature; reports that males patrol large ranges in search of estrous females, which have relatively small home ranges; mentions observations on daily activity patterns; suggests that behavioral tradition may be important in manatee populations; and reports that manatees failed to show a preference among 4 species of food plants offered them in experimental trials.

x Bengtson, John L.

1983. Estimating food consumption of free-ranging manatees in Florida.

Jour. Wildl. Manage., 47(4): 1186–1192. 3 tabs. 1 fig.

—A study, partly experimental, of chewing rate and food consumption at Blue Spring and the St. Johns River indicated an estimated consumption

rate of 108 g/min and 4%–9% of body weight per day. The highest rates were observed just before winter.

x Bengtson, John L.; & Fitzgerald, Shannon M.

1985. Potential role of vocalizations in West Indian manatees.

Jour. Mamm., 66(4): 816–819. 2 figs. Nov. 29, 1985.

—Reports correlations between number of calls and various behaviors of manatees in Blue Spring and the St. Johns River, Florida. Concludes that vocalizations are mainly social and communicative in function, not navigational. Notes the possible use of vocalizations for alarm, greeting, and synchronizing of breathing, and estimates the distances at which manatees can hear various sounds.

x Bengtson, John L.; & Magor, Diana Marion

1979. A survey of manatees in Belize.

Jour. Mamm., 60(1): 230–232. 1 tab. 1 fig. Feb. 20, 1979.

—A total of 101 manatee sightings were made in 5 days of aerial survey.

Beniowski, Moritz August, Graf von

1790. *Reisen durch Sibirien und Kamtschatka über Japan und China nach Europa. Nebst einem Auszuge seiner übrigen Lebensgeschichte.... Mit Anmerkungen von Johann Reinhold Forster.*

Berlin, Voss, xxi + 447. Pls.

—Translated from Engl. *Rhytina*, p. 213.

Bennett, F.D.: SEE Andres & Bennett, 1975.

Bennett, George

1860. *Gatherings of a naturalist in Australasia: being observations principally on the animal and vegetable productions of New South Wales, New Zealand, and some of the Austral Islands.*

London, John Van Voorst, xii + 456. Frontisp. 24 figs. 7 pls.

—Facsimile repr.: Milson's Point (New South Wales), Currawong Press, 1982. Account of dugongs and dugong exploitation at Moreton Bay (164–167).

Benwell, Gwen; & Waugh, Arthur

1961. *Sea enchantress.*

London, Hutchinson; New York, Citadel, 1–287. 2 figs. 16 pls.

Benzoni, Girolamo

1565. *La historia del Mondo Nvovo.... Laqual tratta dell' isole, & mari nuouamente ritrouati, & delle nuoue città da lui proprio vedute, per acqua & per terra in quattordeci anni.*

Venice, Francesco Rampazetto, 175 leaves.

—Allen 20. Reprinted 1572; many later eds. Manati, p. 96.

Benzoni, Girolamo

1578. *Novae novi orbis historiae, id est, rerum ab Hispanis in India Occidentali hactenus gestarum, & acerbo illorum in eas gentes dominatu, Libri tres, Urbani Calvetonis opera industriâque ex Italicis Hieronymi Benzoni Mediolanensis, qui eas terras xiiii. annorum peregrinatione obiit, commentarijs descripti; Latini facti, ac perpetuis notis, argumentis & locu pleti memorabilium rerum accessione, illustrati. His ab eodem adiuncta est, de Gallorum in Floridam expeditione, & insigni Hispanorum in eos faeuitiae exemplo, brevis historia.*

[Geneva,] Evstathivm Vignon, 1–480.

–Allen 23. Latin ed. of Benzoni, 1565. “Manati pisces,” cap. xiii, pp. 213–214 (manatee of Nicaragua), 216–217 (a further account based on that of Peter Martyr [1533], which did not appear in the 1565 ed.).

Berg, L.S.

1946. *Otkrytie Kamchatki i ekspeditsii Beringa 1725–1742 gg.* [The discovery of Kamchatka and the Bering expeditions of 1725–1742.] Ed. 3.

Moscow & Leningrad, Izdatel'stvo Akademii Nauk SSSR, 1–379.

–First ed., 1924? Includes discussion of sources, with bibliography.

Bergin, T.J.

1981. Veterinary aspects. Report on meeting of working party in Sydney, 15 February 1981. In: J.K. Ling (ed.), *Marine mammal strandings in Australia: towards a national plan.*

Adelaide, South Australian Museum (69 pp.), 14–17.

Berhanu, Allen

1976. Ethiopia: a report on the Dahlac Islands marine park.

IUCN Publs. (n.s.), No. 35: 45–49.

Berkel, Adriaan van

1695. *Amerikaansche voyagien, behelzende een reis na Rio de Berbice, gelegen op het vaste land van Guiana, aan de Wilde-kust van America, mitsgaders een andere na de Colonie van Suriname, gelegen in het noorder deel van het gemelde landschap Guiana. Ondermengd met alle de byzonderheden noopende de zeden, gewoonten, en levenswijs der inboorlingen, boom- en aardgewassen, waaren en koopmanschappen, en andere aanmerkelijke zaaken.*

Amsterdam, J. ten Hoorn, 4 + 139. Frontisp. 2 pls.

–Report of a manatee in the lower Suriname River.

Berkel, Adriaan van

1942. *Travels in South America between the Berbice and Essequibo Rivers and in Surinam 1670–1689,*

translated & edited by Walter Edmund Roth, 1925.

Georgetown (British Guiana), The “Daily Chronicle,” Ltd., xvi + 145 + v. Pls. 1 map.

Bernardin de Saint-Pierre, J.H.

1773. *Voyage à l'Isle de France, à l'Isle de Bourbon, au Cap de Bonne-Espérance, etc., avec des observations nouvelles sur la nature et sur les hommes. Par un Officier du Roi.*

Neuchatel, Impr. Soc. Typographique (2 vols.).

Berndt, Ronald M.

1948. A 'Wonguri-'Mandzikai song cycle of the Moon-Bone.

Oceania, 19(1): 16–50. Sep. 1948.

–Songs and legends about dugongs in northeastern Arnhem Land, Australia.

Berndt, Ronald M. (ed.)

1964. *Australian aboriginal art.*

Sydney, Ure Smith: xiii + 118. 73 pls. 1 map.

–C.P. Mountford, 20–32? Recounts the myth of the moon-man and his sister, the dugong-woman (pl. 31).

Berry, Edward W.

1923. The Mayence Basin, a chapter of geologic history. *Sci. Monthly*, 16: 113–129. Feb. 1923.

Berry, William B.N.: SEE Floyd et al., 1958.

x Berthold, Arnold Adolph

1827. *Latreille's ... Natürliche Familien des Thierreichs. Aus dem Französischen, mit Anmerkungen und Zusätzen....*

Weimar, Gr. H.S. priv. Landes-Industrie-Comptoirs, x + 606.

–Lists *Manatus*, *Halicore*, and *Rhytina* under “Cetacea: Herbivora”; first use of the emended spelling *Rhytina* (62).

x Bertram, Cicely Kate Ricardo; & Bertram, George Colin Lawder

1966a. Sea cows could be useful.

Sea Frontiers, 12(4): 210–217. 5 figs. Jul.–Aug., 1966.

–Pop. acc. of sir. status and use for weed control and other purposes; figs. of dugongs, tusks, harpoons, and seagrass.

x Bertram, Cicely Kate Ricardo; & Bertram, George Colin Lawder

1966b. The Sirenia: a vanishing order of mammals.

Animal Kingdom, 69(6): 180–184. 4 figs. Dec. 1966.

–Pop. acc. of sirs. and the prospects for their survival, with one photo of *T. manatus*, two of dugongs, and a sketch of Steller's sea cow from G.M. Allen (1942).

x Bertram, Cicely Kate Ricardo; & Bertram, George Colin Lawder

1968. The Sirenia as aquatic meat-producing herbivores.

In: M.A. Crawford (ed.), *Comparative nutrition of wild animals*.

Symp. Zool. Soc. London, No. 21: 385–391; discussion, 393–394. 2 figs. Symposium held Nov. 10–11, 1966.

–Discusses sir. ecology, economic uses, and conservation.

- x Bertram, Cicely Kate Ricardo; & Bertram, George Colin Lawder
1971. The decline of the dugong.
Austral. Nat. Hist., 17(4): 146–147. 1 fig. Dec. 1971.
–Pop. acc. of Australian dugongs. Mentions use of dugong oil in a Queensland hospital for medicinal purposes as late as 1965.
- Bertram, Cicely Kate Ricardo: SEE ALSO Bertram, George Colin Lawder.
- Bertram, George Colin Lawder: SEE ALSO Charnock-Wilson et al., 1974; Frazier et al., 1987; Kaiser, H.E., 1974; Little, E.C.S., 1966.
- Bertram, George Colin Lawder
1943. Note on the sea cow in the Gulf of Aqaba.
Jour. Soc. Preserv. Fauna Empire (n.s.), Pt. 47: 21–23.
- Bertram, George Colin Lawder
1963. *In search of mermaids: the manatees of Guiana*. London, Peter Davies; New York, Thomas Y. Crowell Co., xi + 183.
- x Bertram, George Colin Lawder
1974. Conservation of Sirenia: current status and perspectives for action.
Occas. Paper, Internatl. Union Conserv. Nature & Nat. Resources (Morges, Switzerland), No. 12: 1–19.
–Gen. acc. of sir. biology and status, with recommendations regarding the proposed International Manatee Research Centre in Guyana and conservation needs of each of the living species, especially dugongs in Australia and Somalia. Written as a discussion paper for the recently formed IUCN Sirenia Specialist Group.
- Bertram, George Colin Lawder
1975. Save the mermaids.
Wildlife, Wildl. Conserv. Yearbook, 1975: 82–87. 1 fig. 5 pls.
- x Bertram, George Colin Lawder
1977. Sea cows.
Bull. Emirates Nat. Hist. Group (Abu Dhabi), No. 1: 3–4. Mar. 1977.
–Summary of popular lecture on sirs., with mention of captures at Abu Dhabi.
- x Bertram, George Colin Lawder
1980. Dugongs in the nineteen-seventies.
Spolia Zeylanica, 35(I/II): 219–221.
–Gen. acc. of dugong and manatee research and

conservation.

- x Bertram, George Colin Lawder
1981. Dugong numbers in retrospect and prospect. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.). [Townsville (Australia)], James Cook Univ. (vii + 400), 1–7.
–Briefly sketches what is known of the past abundance of dugongs, calls attention to the effects of human population pressure, and emphasizes the critical responsibility of Australia in dugong conservation. Suggests that Queensland was the area of greatest dugong abundance in the world even in prehistoric times.
- Bertram, George Colin Lawder
1987. *Antarctica, Cambridge, conservation and population: a biologist's story*. Publ. by the author, viii + 208.
–Tells the story of Colin and Kate Bertram's studies of sirs. (82, 108, 112–125, 197, 199).
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1962. Manatees of Guiana.
Nature (London), 196(4861): 1329. Dec. 29, 1962.
–Reprinted in *Jour. Brit. Guiana Mus. & Zoo*, No. 37? Summarizes the status of manatees in British Guiana and neighboring regions, and efforts to use them in weed-clearing. Notes difficulty in the latter efforts due to losses in capture and transport, and failure of manatees to breed in captivity.
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1963. The status of manatees in the Guianas.
Oryx, 7(2/3): 90–93. Aug. 1963.
–Reviews the status and distribution of *T. m. manatus* in British Guiana, its use for meat and for weed control, and the impracticability of expanding the latter use. Makes recommendations for manatee conservation in the Guianas.
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1964a. Manatees in the Guianas.
Zoologica (New York), 49(2): 115–120. Summer 1964.
–Describes the distribution, habits, and status of *T. m. manatus* in British Guiana and adjacent areas.
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1964b. Does the “extinct” sea cow survive?
New Scientist, 24(415): 313. 1 fig. Oct. 29, 1964.
–Pop. acc. of the presumed extermination and possible survival of Steller's sea cow.

- Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1965. Seaweed into beef.
Animals, 6(13): 352-355. 7 figs.
-Gen. acc. of sir. natural history.
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1966a. The dugong.
Nature (London), 209(5026): 938-939. Feb. 26, 1966.
-Optimistic report of dugong status in Australia and neighboring regions; hunting pressure believed to be diminishing in many places, and stocks seem secure.
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1966b. Dugongs in Australian waters.
Oryx, 8(4): 221-222. Apr. 1966.
-Dugongs reported to be doing well in Australia, and little hunted except by Aborigines.
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1968a. Bionomics of dugongs and manatees.
Nature (London), 218(5140): 423-426. 3 figs. May 4, 1968 (read to Linnean Soc., Feb. 15, 1968).
-Gen. acc. of sirs. and their conservation, emphasizing Australian dugongs and Guyanese manatees.
- Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1968b. The world's most valuable reptiles.
Animals, 10(10): 440-444. Feb. 1968.
-Compares sea turtles with sirs. as marine herbivores.
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1970a. The dugongs of Ceylon.
Loris, 12(1): 53-55. Jun. 1970.
-Discusses problems of dugong conservation (particularly marked decline due to intensification of the marine fishery), summarizes present status, and urges establishment of a dugong sanctuary.
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1970b. Dugongs in Ceylon.
Oryx, 10(6): 362-364. 2 figs. Dec. 1970.
-Reports that dugongs are decreasing in Ceylon due to accidental netting, in spite of legal protection, and advocates creation of a dugong sanctuary.
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1973. The modern Sirenia: their distribution and status.
Biol. Jour. Linn. Soc., 5(4): 297-338. 2 figs. Pl. 1. Dec. 1973.
-An excellent and detailed review, based on wide travel and correspondence, of the present distribution of sirs., population trends, economic use and past exploitation, present hunting and hunting techniques, accidental catch, use in weed control, and existing and needed conservation measures. Rather more emphasis is placed on dugongs than on manatees. Includes an analysis of data on size, sex, pregnancy, and month of capture of some 433 dugongs taken at Numbulwar Mission, Northern Territory, Australia, in 1963-1969 (333-335); limited evidence for a breeding season was found.
- x Bertram, George Colin Lawder; & Bertram, Cicely Kate Ricardo
1977. The status and husbandry of manatees *Trichechus* spp.
Internatl. Zoo Yearbk., 17: 106-108.
-Briefly reviews the history and status of manatee weed-control attempts in Guyana and Surinam, and the Guyana manatee research project; urges creation of a captive-breeding program and discusses problems of weed-control and captive-breeding efforts.
- x Bertram, George Colin Lawder; & Sale, J.B.
1975. Dugong meeting in Nairobi.
East Afr. Wildl. Jour., 13(3/4): 389-390. Dec. 1975.
-Report of meeting and recommendations for further research and conservation efforts.
- Bertram, William Halsey Ricardo: SEE Harris & Bertram, 1977.
- Bertrand, Pierre
1988. Évolution de la structure de l'émail chez les Proboscidea primitifs: aspects phylogénétique et fonctionnel. In: D.E. Russell et al. (eds.), *Teeth revisited*.
Mém. Mus. Natl. Hist. Nat., Sér. C, Sci. Terre, 53: 109-124. Illus.
-Engl. summ.
- x Berzin, A.A.; Tikhomirov, E.A.; & Troinin, V.I.
1963. Ischezla li stellerova korova? [Is Steller's sea cow extinct?]
Priroda, 52(8): 73-75. 1 fig.
-Engl. transl.: *Fisheries Research Board of Canada Transl. Ser.*, No. 548: 1-4, 1965. Report of animals seen off Cape Navarin in Jun. 1962, which may have been *Rhytina stelleri*. Other post-1768 reports also cited, mostly from Grekov and Nordenskiöld.
- x Bessac, H.; & Villiers, A.
1948. Le lamantin du Sènègal.

La Nature (Paris), 76(3158): 188–189. 4 figs. Jun. 1948.

–Fascinating gen. acc. of *T. senegalensis*, including migrations, hunting methods, native beliefs, and natural history data (much of doubtful accuracy) supplied by a native informant.

Best, Maya Borel: SEE Boekschoten & Best, 1988.

Best, P.B.

1971. Order Sirenia. In: J. Meester & H.W. Setzer (eds.), *The mammals of Africa: an identification manual*. Washington, Smithsonian Inst. Press, Pt. 13: 1 p. –First ed., 1968.

Best, Robin Christopher: SEE ALSO Assis et al., 1988; Ayres & Best, 1980; Bullock et al., 1980; Farmer et al., 1979a,b; Gallivan et al.; Kleinschmidt et al., 1988; Lainson et al., 1983; Lefebvre et al., 1989; Marsh et al., 1986; Mok & Best, 1979; Montgomery et al., 1981; Packard, Rathbun et al., 1984; Piggins et al., 1983.

x Best, Robin Christopher

1981. Foods and feeding habits of wild and captive Sirenia.

Mammal Review, 11(1): 3–29. 12 tabs. 2 figs.

–Detailed review of diets, feeding behavior, food consumption, nutrition, and digestive physiology of the five Recent species, listing all reported food items consumed in the wild or in captivity, with analyses of composition and digestibility for some of them.

x Best, Robin Christopher

1982a. Seasonal breeding in the Amazonian manatee, *Trichechus inunguis* (Mammalia: Sirenia).

Biotropica, 14(1): 76–78. 1 fig.

–Concludes from dates of capture of calves that the indirect effect of rising river levels on nutritional status serves as a cue for manatee reproductive activity.

Best, Robin Christopher

1982b. A salvação de uma espécie: novas perspectivas para o peixe-boi da Amazônia.

Revista IBM, No. 14: 10 pp. 12 figs. Dec. 1982.

x Best, Robin Christopher

1983. Apparent dry-season fasting in Amazonian manatees (Mammalia: Sirenia).

Biotropica, 15(1): 61–64. 1 fig.

–Reports observations on *T. inunguis* trapped in Lago Amanã, Brazil, during the 1979–1980 dry season, with comments on physiology, hunting, and implications for conservation. Manatees normally appear to fast 3–4 months per year; in this case the fast lasted nearly 7 months.

x Best, Robin Christopher

1984a. *Trichechus inunguis* vulgo peixe-boi.

Ciênciahoje, 2(10): 66–73. 11 figs. Jan.–Feb. 1984.

–Excellent pop. acc. of *T. inunguis* biology and the diverse manatee research projects at INPA, Manaus, Brazil.

x Best, Robin Christopher

1984b. The aquatic mammals and reptiles of the Amazon. In: H. Sioli (ed.), *The Amazon. Limnology and landscape ecology of a mighty tropical river and its basin*.

Monographiae Biol., 56 (Dordrecht, Dr. W. Junk, 763 pp.), 371–412. 11 tabs. 12 figs.

–Gen. acc. of the history of exploitation of *T. inunguis* and its biology, based on studies in progress at the Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, Brazil (371–377).

According to eyewitness Mario Ypiranga (unpublished data in INPA files), the “anonymous” photo of a manatee and hunter (Fig. 1) was taken by INPA photographer Lourival Salgado near Freguesia do Andirá on the Rio Andirá, Amazonas, Brazil. The manatee was a female, not pregnant, and not as huge as it looks; the hunter was only about 160 cm tall (compared to Ypiranga’s 155 cm) and the manatee’s back rose some 60–70 cm above the ground. Another view of this scene was published in the *Amazônia Bibliografia 1614–1962*, Rio de Janeiro, INPA, 1963.

Best, Robin Christopher; Gallivan, G. James; & Kanwisher, John W.

1982. Eophysiology of the Amazonian manatee *Trichechus inunguis* [Abstr.].

Braz. Jour. Med. Biol. Res., 15(2–3): 193.

n Best, Robin Christopher; Montgomery, G. Gene; & Yamakoshi, Megumi

1981. Avaliação de técnicas de rádio-rastreamento e marcação do peixe-boi da Amazônia, *Trichechus inunguis* (Mammalia: Sirenia).

Acta Amazonica, 11(2): 247–254. 1 tab. 4 figs. Jun. 1981.

–A Portuguese version of Montgomery, Best & Yamakoshi (1981) (q.v.), with additional photographs showing the floating meadows in the study area, the freeze-brand and branding iron used, and the transmitter-peduncle belt assembly.

x Best, Robin Christopher; Ribeiro, Gilberto de Assis; Yamakoshi, Megumi; & Silva, Vera Maria F. da

1982. Artificial feeding for unweaned Amazonian manatees *Trichechus inunguis*.

Internatl. Zoo Yearbk., 22: 263–267. 2 tabs. 1 fig. 1 pl.

–Describes the composition and effects on growth rates of three different artificial formulas used in the rearing of 14 captive calves.

- x Best, Robin Christopher; & Silva, Vera Maria F. da
1979. Peixe-boi. Uma sereia na represa?
Cespaulista (São Paulo), 3(16): 26–27, 29. 3
figs. Apr. 1979.
–Pop. acc. of Brazilian manatees and manatee
research at INPA in Manaus. See also Cascudo
(1979).
- x Best, Robin Christopher; & Teixeira, Dantes Martins
1982. Notas sobre a distribuição e “status” aparentes
dos peixes-bois (Mammalia: Sirenia) nas costas
amapaenses brasileiras.
Bol. Inf. FBCN (Rio de Janeiro, Fundação
Brasileira para a Conservação da Natureza), No.
17: 41–47. 1 fig.
–A 1978 ground survey of the coast of Amapá,
Brazil, found evidence only of *T. manatus*.
Comments on hunting methods, food plants, body
size of calves and adults, possible shark bites,
status, and conservation efforts.
- x Betz, Joseph J.
1968. Sea cow deception.
Sea Frontiers, 14(4): 204–209. 4 figs. Jul. 1968.
–Account of an abortive 1893 plan for raising
manatees in captivity in Florida.
- x Beusse, D.O., Jr.; Asper, Edward D.; & Searles, Stan W.
1981a. Some causes of manatee mortality. In: R.L.
Brownell, Jr., & K. Ralls (eds.), *The West Indian
manatee in Florida. Proceedings of a workshop
held in Orlando, Florida, 27–29 March 1978*
(q.v.).
Tallahassee, Florida Dept. Nat. Res. (iv + 154),
98–101. 1 tab. 1 fig.
–Lists carcasses of *T. manatus* recovered in
Florida, 1974–1977, and gives detailed findings
on the three that were fresh enough for necropsy.
One died of septicemia with pneumonia after
entanglement in a crab-trap line, another from
septicemia without obvious wounds, and a third
from propeller cuts and pneumonia. See also
Irvine, Odell & Campbell (1981).
- x Beusse, D.O., Jr.; Asper, Edward D.; & Searles, Stan W.
1981b. Diagnosis and treatment of manatees at Sea World
of Florida. In: R.L. Brownell, Jr., & K. Ralls
(eds.), *The West Indian manatee in Florida.
Proceedings of a workshop held in Orlando,
Florida, 27–29 March 1978* (q.v.).
Tallahassee, Florida Dept. Nat. Res. (iv + 154),
111–120. 3 tabs. 3 figs.
–Reports on the successful treatment of three *T.
manatus* for entanglement in a crab-trap line,
propeller cuts, and a possible retained placenta,
respectively. Includes extensive tables showing
the results of blood studies during treatment. See
also Asper & Searles (1981) regarding these
manatees.
- Beyer, Hermann
1908. Studien über den sogenannten Schalleitungsap-
parat bei den Wirbeltieren und Betrachtungen
über die Function des Schneckfensters.
Arch. Ohrheilk., 77: 77–105. Figs. 20–24.
- Bhaskar, S.
1978. Notes on the Gulf of Kutch.
Hamadryad, 3(3): 9–10.
–Reports finding a dead male dugong on Bhaidan
Island, Gulf of Kutch, India (10).
- Bhaskar, S.
1986. Dugongs. In: R.E. Hawkins (ed.), *Encyclopedia of
Indian natural history*.
Bombay, Bombay Nat. Hist. Soc., 189.
- Bhatia, S.B.: SEE Sahni et al., 1983.
- x Bibby, Geoffrey
1969. *Looking for Dilmun*.
New York, Alfred A. Knopf, [xvi] + 383 + viii. 41
figs. 32 pls. 9 maps.
–Mentions use of dugongs for food in Abu Dhabi,
both today (224) and in the Umm an-Nar
community of ca. 2800 B.C., where dugong bones
made up about 80% of the total faunal remains
(303–304, 306).
- x Bible, The
–The Hebrew word *tachash* is used in the Old
Testament in reference to a certain kind of animal
hide, interpreted by various translators to be
badger, seal, porpoise, or simply “violet” or
“hyacinth”-colored hide; or, less commonly, nar-
whal, deer, goat, giraffe, “spotted” hide, etc. (see
Aharoni, 1937 and Furman, 1940?, for discus-
sion). According to Schoff (1920), the Talmud
identifies it as a unique animal that existed only in
the time of Moses. However, many commentators
accept the likelihood that the dugong is meant
(see, e.g., H.C. Hart, 1888; B. Orchard et al. (eds.),
A Catholic commentary on Holy Scripture, New
York, Thomas Nelson & Sons, 1953; G.S.
Cansdale, 1970; and *The New English Bible*).
The word occurs in two different Biblical
contexts, each of which indicates that *tachash*
leather was considered to be durable and of high
quality. First, it was used by the ancient Hebrews
for the outermost covering of the Tabernacle
(Exodus 25:5; 26:14; 35:7, 23; 36:19; 39:34;
Numbers 4:25) as well as for individual coverings
for the Ark, the Table of Showbread, the Altar,
and the other furnishings and equipment of the
Sanctuary (Numbers 4:6, 8, 10, 11, 12, 14), in
order to protect them from the weather and during
transport. This use inspired the name *Halicore
tabernaculi* Rüppell, 1834, for the Red Sea
dugong. Second, in the allegory of the marriage
between God and Jerusalem (Ezekiel 16:10),

sandals of *tachash* leather are listed as part of the costly and luxurious trousseau of the bride. The use of dugong hide for shoes and sandals is attested in more recent times (Rüppell, 1834; Bertram & Bertram, 1973: 323; Preen, 1989a: 97, 114). The two Biblical contexts are evidently not unconnected: Schoff (1920: 51) notes that the bride's luxuries "were, item by item, substances that went into the construction, adornment, equipment and service of the tabernacle of Moses," so Ezekiel's allegory probably alludes consciously to the description of the Tabernacle.

Tachash has also been adopted as the vernacular name of the dugong in modern Hebrew, apparently following the conclusions of early Israeli zoologists and without any particular etymological or rabbinical authority (Dr. J. Shoshani, pers. comm.). Shoshani is inclined to doubt that the dugong is meant, on the grounds that the dugong is not kosher (it seems unlikely that the hide of an "unclean" animal would have been used for the Tabernacle) and that *tachash* appears to carry a connotation of "spotted" or "multicolored." Cognate words meaning "dolphin" or "sea-mammal" and "to stretch (leather)" occur in Arabic and ancient Egyptian, respectively. See J.H. Bondi, *Dem hebräisch-phönizischen Sprachzweige angehörige Lehnwörter in hieroglyphischen und hieratischen Texten*, Leipzig: 1-130, 1886.

x Bickmore, Albert S.

1869. *Travels in the East Indian archipelago*.

New York, D. Appleton & Co., 1-553.

-P. 244: {"Large quantities of tripang [sea cucumbers] are gathered on the shallow coral banks of these low islands [the Arus], and in the sea the dugong, *Halicore dugong*, Cuv., is seen."} The same material appears on p. 182 of the German ed. (Jena, 1869).

Biet, Antoine

1664. *Voyage de la France Equinoxiale en l'isle de Cayenne entrepris par les françois en l'année M.DC.LII*.

Paris, François Clovzier, [xxii] + 432.

x Billberg, Gust. Joh.

1827. *Synopsis faunae Scandinaviae. Tom. I. Pars I. Mammalia...*

Holmiae [= Stockholm], Off. Typogr. Ordinum Equestrum, viii + 55 + xv + [iii]. 3 tabs.

-Lists in classification under "Tribus Anthropcephala," "Natio Manatides" [both = Sirenia]: *Manatus*, *Halicore*, and *Haligyna* [n.gen.] *borealis* [= *Hydrodamalis gigas*], the latter based on Gmelin's *Trichechus manatus borealis* (tabs. A & B, 33).

x Billberg, Gust. Joh.

1828. *Synopsis faunae Scandinaviae. Tom. I. Pars I. Mammalia...*

Holmiae [= Stockholm], Off. Typogr. Caroli Deleem, xii + 56 + x. 3 tabs.

-Material almost identical to that in 1827 ed., but gives the Greek etymology of the new name *Haligyna* and lists *Rytina* as a possible synonym of it (tabs. A & B, 33-34).

x Bingham, Bruce

1981. The day of the manatee.

Cruising World, May 1981: 90-91. 3 figs.

-Pop. acc. of encounter with a friendly manatee in Florida, with a photo of the animal drinking from a fresh-water hose. Includes "A plea to save the manatee" by Katy Burke as a separate item on p. 91.

Biosca, J.: SEE Pilleri et al., 1989.

Birch, W.R.: SEE Heinsohn & Birch, 1972.

Birtles, Alastair: SEE Anderson & Birtles, 1978.

x Birulia, A.A.

1929. O tazovoi kosti (os pelvis) morskoj korovy (*Rhytina stelleri* Oser.). [Note on the os pelvis of *Rhytina stelleri* Oser.] *C. R. Acad. Sci. URSS (Doklady Akad. Nauk SSSR)*, Sér. A, 1929(4): 87-90. 1 fig.

-Describes a "left" [actually right] innominate found with a skeleton, for the most part representing a single individual, collected on Bering Island in 1895-1896 and mounted in the Khabarovsk Regional Museum. Another skeleton collected at the same time was sold to the Paris Museum of Natural History in 1903.

x Bischoff, Th.L.W.

1847. Einige Beiträge zur Anatomie des Duyong.

Arch. Anat. Phys. Wiss. Med. (Müller), 1847: 1-6. Pl. 1.

-Describes the teeth, vertebrae, ribs, pelvis, hyoid apparatus, and penis of a young dugong. The plate shows the tongue, hyoid, and larynx.

Bisselink, A.-M.

1990. Manatees at Burgers' Zoo, Arnhem, The Netherlands.

IZN (Internat. Zoo News), 37(7)(224): 5-7.

x Bittencourt, Agnello

1925. *Chorographia do Estado do Amazonas*.

Manaus, Typ. Palacio Real, 1-346. Illus.

-Briefly comments on the intensity of exploitation of manatees in Amazonas, Brazil, with 2 photos (134-136).

x Bittencourt, Agnello

1934. A pesca do pirarucu e do peixe-boi.

A Voz do Mar, 14(117): 24-25. Nov. 1934.

-Briefly remarks on the hunting of manatees (considered less commercially important than

- pirarucu) and on the manufacture and price of mixira (canned manatee meat).
- x Bittencourt, Agnello
1966. *Plantas e animais bizarros do Amazonas*. Manaus, Edições Governo do Estado do Amazonas, 1–59.
–Pop. acc. of “*Manatus americanus*” (35–36).
- x Bizzarini, Fabrizio; Bizzotto, Bruno; & Braga, Giampietro
1977. Resti di sirenio (*Prototherium*) nella marna di Possagno (Eocene superiore)—Trevigiano Occidentale.
Mem. Ist. Geol. Min. Univ. Padova, 30: 1–15. 5 figs. 2 pls.
–Reports parts of left and right mandibles, ribs, and a vertebra, considered to be slightly more advanced than the holotype of *Prototherium veronense* and referred to “*P. veronense* sp.”
- Bizzotto, Bruno: SEE ALSO Bizzarini et al., 1977.
- x Bizzotto, Bruno
1983. *Prototherium intermedium* n. sp. (Sirenia) dell’Eocene Superiore di Possagno e proposta di revisione sistematica del taxon *Eotheroides* Palmer 1899.
Mem. Sci. Geol., Ist. Geol. Min. Univ. Padova, 36: 95–116. 2 tabs. 5 figs. 2 pls.
–Describes *P. intermedium* and compares it with *P. veronense*, *E. libycum*, and other forms; considers *Eotheroides* a junior synonym of *Prototherium*.
- Bjorndal, Karen A.: SEE ALSO Thayer et al., 1984.
- Bjorndal, Karen A.
1979. Cellulose digestion and volatile fatty acid production in the green turtle, *Chelonia mydas*.
Comp. Biochem. Physiol. A. Comp. Physiol., 63(1): 127–133. 3 tabs. 3 figs.
- Black, D.J.: SEE Forrester et al., 1979; Medway, Black & Rathbun, 1982; Medway, Bruss et al., 1982.
- Black, Norman
1900. Adaptive modification as seen in the teeth of Mammalia.
Brit. Jour. Dental Sci., 43: 4–23.
- Blackburn, R.; & Andres, L.
1968. The snail, the mermaid, and the flea beetle.
U.S. Dept. Agric. Yearbk. Agric., 1968: 229–234.
–Use of Florida manatees in weed control.
- Blackman, D.: SEE Prince et al., 1981.
- Blainville, Henri Marie Ducrotay de
1816. Prodrôme d’une nouvelle distribution systématique du règne animal.
Bull. Sci. Soc. Philomat. Paris, (3)3: 105–124.
- Blainville, Henri Marie Ducrotay de
1836. [Classification presented in 1834.] In: F.-E. Guérin, *Dict. pittor. hist. nat. phenom. nature*. Paris, Bureau de Souscription, Vol. 4: 619.
- Blainville, Henri Marie Ducrotay de
1837. Note sur la tête de *Dinotherium giganteum*, actuellement à Paris.
C. R. Acad. Sci. Paris, 4(12): 421–427? 2 figs. Read Mar. 20, 1836.
–Abstrs.: *L’Institut*, 5: 93–94?; *Froriep’s Notizen*, 2: 49–52. See also Duméril (1837).
- Blainville, Henri Marie Ducrotay de
1841. Rapport sur un mémoire de M. Jules de Christol, intitulé: Recherches sur divers ossements fossiles attribués par Cuvier à deux phoques, au lamantin et à deux espèces d’hippopotames et rapportés au *Metaxytherium*, nouveau genre de cétacés de la famille des dugongs.
C. R. Acad. Sci. Paris, 12: 235–242.
–Abstrs.: *L’Institut*, 9: 37–38?; *Edinb. New Philos. Jour.*, 30: 445–448? See also Guérin-Ménéville (1841).
- Blainville, Henri Marie Ducrotay de
1844. *Ostéographie ou description iconographique comparée du squelette et du système dentaire des mammifères récent et fossiles pour servir de base à la zoologie et à la géologie*. [Livr. 15] Des lamantins (Buffon), (*Manatus*, Scopoli), ou gravi-grades aquatiques.
Paris, Arthus Bertrand (4 vols. + 4 vol. atlas), Vol. 3, Livr. 15: 1–140. 11 pls. (in folio atlas).
–A major contribution to knowledge of the osteology of Recent and fossil sirs., and likewise valuable for its detailed analysis of previous work on sirs. and their relationships. De Blainville concluded decisively and correctly that sirs. are not cetaceans, but rather “Gravigrades aquatiques,” related to the elephants. He also, however, cluttered nomenclature with many new combinations created in the course of lumping all known sirs. into the single genus *Manatus*.
- x Blair, David
1977. Parasites of the dugong in Australian waters. [Abstr.]
Abstrs. World Assoc. Adv. Vet. Parasitol., 8th Internat. Conf. (Sydney, Australia, July 11–15, 1977): [abstr. no. 64.]
–Notes the locations in the body where several named and unnamed flukes (Digenea) have been found.
- x Blair, David
1979. A new family of monostome flukes (Platyhelminths, Digenea) from the dugong, *Dugong dugon* (Müller).
Ann. Parasitol. Hum. Compar., 54(5): 519–526. 4 figs.
–Describes the Labicolidae, n.fam., and *Labicola elongata*, n.gen.n.sp., from abscesses in upper lips

of dugongs from north Queensland, Australia.

x Blair, David

1980. *Indosolenorchis hirudinaceus* Cruzs, 1951 (Platyhelminthes; Digenea) from the dugong, *Dugong dugon* (Müller) (Mammalia; Sirenia).

Ann. Parasitol. Hum. Compar., 55(5): 511–525. 1 tab. 4 figs.

–Redescription and review, based on specimens from the Red Sea, East Africa, Sri Lanka, Indonesia, Okinawa, Papua New Guinea, and Australia. “*Zygocotyle* sp.” of Dollfus (1950) is referred to *I. hirudinaceus*; *Solenorchis* is retained as a distinct genus.

x Blair, David

1981a. The monostome flukes (Digenea: Families Opisthotrematidae Poche and Rhabdiopoeidae Poche) parasitic in sirenians (Mammalia: Sirenia).

Austral. Jour. Zool. Suppl. Ser., No. 81: 1–54. 1 tab. 51 figs. Dec. 21, 1981.

–Revision of the genera and species *Opisthotrema dujonis*, *O. australe*, n.sp., *Cochleotrema cochleotrema*, *C. indicum*, n.comb., *Pulmonicola pulmonalis*, *Lankatrema mannarensis*, *L. minutum*, n.sp., *L. microcotyle*, n.sp., *L. macrocotyle*, n.sp., *Lankatrematoides gardneri*, n.gen.n.sp., *Folitrema jecoris*, n.gen.n.sp. (Opisthotrematidae), *Rhabdiopoeus taylori*, *Taprobanella bicaudata*, *Faredifex clavata*, n.gen.n.sp., and *Haerator caperatus*, n.gen.n.sp. (Rhabdiopoeidae). All these are from the dugong except *C. cochleotrema*, which inhabits *T. manatus*. All the new species are from Queensland and in some cases also from Papua New Guinea and elsewhere; new records of some species are also reported from Palau, Okinawa, the Philippines, Indonesia, and the Red Sea.

x Blair, David

1981b. Flukes parasitic in the dugong and sea-turtles in northern Australia. [Abstr.]

New Zealand Jour. Zool., 9(1): 46.

–Brief notice of the discovery of 10 new species of flukes in the dugong.

x Blair, David

1981c. Helminth parasites of the dugong, their collection and preservation. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.).

[Townsville (Australia)], James Cook Univ. (vii + 400), 275–285. 1 tab.

–Describes techniques for collecting and fixing flukes, and gives a checklist of helminths found in the dugong (281). In the 1984 reprint of this volume (see Marsh, 1981a), this paper was

updated with newly published names of parasites.

x Blair, David

1986. Remarkable parasites in a unique host.

Parasitology Today, Australian Supplement, 2(7): S21–S22. 3 figs. Jul. 1986.

–Gen. acc. of dugong endoparasites, with illustrations of *Labicola elongata*, *Cochleotrema indicum*, and a dugong harpooned by an Aboriginal hunter.

x Blair, David; & Hudson, Brydget E.T.

1992. Population structure of *Lankatrematoides gardneri* (Digenea: Opisthotrematidae) in the pancreas of the dugong (*Dugong dugon*) (Mammalia: Sirenia).

Jour. Parasitol., 78(6): 1077–1079. 2 tabs.

–Reports, based on samples from Papua New Guinea, that established adult worms apparently inhibit the maturation of newly invading individuals so that most worms in the infrapopulation remain immature.

Blanchere, H. de la

1875. Le lamantin du Central-Park à New York.

La Nature (Paris), 1(28): 18–19. Dec. 15, 1875.

Blanckenhorn, Max

1903. Neue geologisch-stratigraphische Beobachtungen in Aegypten.

Sitzb. Math.-phys. Kl., Bayer. Akad. Wiss., 32: 353–433. 21 figs.

x Blancou, Lucien

1960. Destruction and protection of the fauna of French Equatorial and of French West Africa. III. Carnivores and some others.

Afr. Wild Life, 14: 241–245. 2 figs.

–Notes that *T. senegalensis* is endangered by continued hunting, especially “in the Gaboon and along the Niger River” (244).

Bland, G.C.

1970. Dugong in Johore Strait.

Malayan Nature Jour., 23(4): 176–177. Jun. 1970.

–Probable sighting, not positive identification. See B.S. Morton (1974).

Blanford, William Thomas

1876. *Eastern Persia: an account of the journeys of the Persian Boundary Commission, 1870–71–72. Mammals: Vol. 2.*

London, Macmillan & Co., 18–97. 8 pls.

–States that Canara is the site of the northernmost dugong record in western India.

Blanford, William Thomas

1891. *The fauna of British India... Mammalia. Part 2.*

London, Taylor & Francis, 1–594.

–Sirs., 592–594.

- x Blessing, Manfred H.
1972. Studies on the concentration of myoglobin in the sea-cow and porpoise.
Comp. Biochem. Physiol. A. Comp. Physiol., 41(3): 475–480. 2 tabs. 1 fig. Mar. 1, 1972.
–Data on cardiac and skeletal muscle myoglobin of “*Trichechus manatus inunguis*” show that the manatee has relatively little myoglobin, but that there are concentrations of it in the diaphragm, jaw, and forelimb muscles.
- x Blessing, Manfred H.; Ligensa, Klaus; & Winner, Reinhard
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-See also J. Murie (1872b). Gives a German transl. (24-26) of Shilov's account of the use of sea cow hide for constructing boats (see P.P. Pekarskiy, 1869).

Brandt, Alexander

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-Allen 786. Halicoreae and Rytineae proposed as new tribes.

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Brandt, Johann Friedrich

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x Brandt, Johann Friedrich

1846a. Nachträgliche Bemerkungen über den mikroskopischen Bau der Kauplatte der *Rhytina*.

Bull. Phys.-math. Acad. Sci. St.-Pétersbourg, 5(6)(102): 92-94. Feb. 28, 1846 (read Dec. 12, 1845).

-Describes his study of the histology of the masticating pads of *Rhytina*, and other points relating to sea cows.

x Brandt, Johann Friedrich

1846b. Ueber den gleichzeitig mit der Ausrottung der Pflegemutter bewerkstelligten geschichtlich nachweisbaren Untergang einer kleinen parasitischen Krebsart (*Cyamus?* oder richtiger vielleicht *Sirenocyamus?* *Rhytinae*) und eines Eingeweidewurmes der Jetztwelt.

Bull. Phys.-math. Acad. Sci. St.-Pétersbourg,

5(12)(108): 189-192. Apr. 20, 1846 (read Mar. 20, 1846).

-Proposes the new specific and (tentatively) new generic name *Sirenocyamus Rhytinae* for the parasitic crustacean of *Hydrodamalis* described by Steller, and suggests that the internal parasite mentioned by Steller was a new species of ascarid nematode.

Brandt, Johann Friedrich

1846c. Symbolae sirenologicae, quibus praecipue *Rhytinae* historia naturalis illustratur.

Mém. Acad. Sci. St.-Pétersbourg (6), *Sci. Nat.* 5, *Zool. Physiol.* (= *Sci. Math. Phys. Nat.* (6)7(2), *Sci. Nat.* 5), 1-160. 5 pls.

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x Brandt, Johann Friedrich

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Bull. Phys.-math. Acad. Sci. St.-Pétersbourg, 6(2-3)(122-123): 46-48. Feb. 24, 1847 (read Sep. 11, 1846).

-Compares new material of *Rhytina* (skull and mandible, atlas, three rib fragments, two ?sternal fragments, one other bone) with the Recent manatee and dugong.

Brandt, Johann Friedrich

1861. Rapport sur un memoire qui, en traitant l'osteologie comparée de la Rhytine, constitue la second partie de mes Symbolae Sirenologicae.

Mél. Biol. Bull. Acad. Sci. St.-Pétersbourg, 4: 75-77.

-?Repr.: *Bull. Acad. Sci. St.-Pétersbourg*, (3)4: 304-305, 1862?

Brandt, Johann Friedrich

1862a. Bemerkungen über die Zahl der Halswirbel der Sirenen.

Bull. Acad. Sci. St.-Pétersbourg, (3)5: 7-10. Feb. 5, 1862 (read Dec. 20, 1861).

-?Repr.: *Mél. Biol. Bull. Acad. Sci. St.-Pétersbourg*, 4: 125-128?

Brandt, Johann Friedrich

1862b. Einige Worte über die verschiedenen Entwicklungsstufen der Nasenbeine der Seekühe (*Sirenia*).

Bull. Acad. Sci. St.-Pétersbourg, (3)5: 10-12. Feb. 5, 1862 (read Dec. 20, 1861).

-?Repr.: *Mél. Biol. Bull. Acad. Sci. St.-Pétersbourg*, 4: 129-132?

- Brandt, Johann Friedrich
1862c. Bemerkungen über die Verbreitung und Vertilgung der *Rhytina*.
Mél. Biol. Bull. Acad. Sci. St.-Pétersbourg, 4: 259–268.
–?Repr.: Brandt (1863a)?
- Brandt, Johann Friedrich
1862d. [Remarks on the skeleton of *Rhytina*.]
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1863a. Bemerkungen über die Verbreitung und Vertilgung der *Rhytina*.
Bull. Acad. Sci. St.-Pétersbourg, (3)5: 558–564. Feb. 15, 1863 (read Dec. 19, 1862).
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- Brandt, Johann Friedrich
1863b. Einige nachträgliche Worte über die Nasenbeine der Sirenien.
Bull. Acad. Sci. St.-Pétersbourg, (3)6: 111–115. Apr. 30, 1863 (read Dec. 19, 1862).
–?Repr.: *Mél. Biol. Bull. Acad. Sci. St.-Pétersbourg*, 4: 269–274?
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1863c. Quelques mots sur une ostéographie des sirènes accompagnées d'une ostéologie des pachydermes et des cétacés.
C. R. Acad. Sci. Paris, 57: 489–490.
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1864. Observationes de *Elasmotherii* reliquiis.
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1866a. Noch einige Worte über die Vertilgung der *Rhytina*.
Bull. Acad. Sci. St.-Pétersbourg, (3)9: 279–282. Jan. 20, 1866 (read Oct. 5, 1865).
–?Repr. from *Mél. Biol. Bull. Acad. Sci. St.-Pétersbourg*, 5: 363–366, 1865? Criticizes Eichwald for failing to consult Brandt and von Baer for accurate data on *Rhytina* to include in his *Lethaea* (1853), and reiterates his insistence on 1768 as the date of the animal's extermination.
- Brandt, Johann Friedrich
1866b. Nochmaliger Nachweis der Vertilgung der nordischen oder Steller'schen Seekuh (*Rhytina borealis*).
Bull. Soc. Nat. Moscou, 39(1): 572–597.
- Brandt, Johann Friedrich
1866c. Mittheilungen über die Gestalt und Unterscheidungsmerkmale des Mammuth oder Mamont (*Elephas primigenius*).—Einige Worte zur Ergänzung meiner Mittheilungen über die Naturgeschichte des Mammuth.
Bull. Acad. Sci. St.-Pétersbourg, (3)10: 94–118, 362–364. 1 pl.
–?Repr.: *Mél. Biol. Bull. Acad. Sci. St.-Pétersbourg*, 5: 561–605, 1 pl.? Sirs., 113.
- x Brandt, Johann Friedrich
1867a. Ergänzende Mittheilungen zur Erläuterung der ehemaligen Verbreitung und Vertilgung der Steller'schen Seekuh.
Bull. Acad. Sci. St.-Pétersbourg, (3)11: 445–451. May 31, 1867 (read Mar. 28, 1867).
–?Repr.: *Mél. Biol. Bull. Acad. Sci. St.-Pétersbourg*, 6: 223–232, 1868? Discusses the occurrence of *Rhytina* on Copper Island, the methods employed in its capture, its final extermination, and its probable former distribution over the whole North Pacific except the extreme north.
- Brandt, Johann Friedrich
1867b. Einige Schlussworte zum Nachweis der Vertilgung der *Rhytina*.
Bull. Soc. Nat. Moscou, 40(1): 23–38.
- x Brandt, Johann Friedrich
1867c. Einige Worte über die Gestalt des Hirns der Seekühe (Sirenia).
Bull. Acad. Sci. St.-Pétersbourg, (3)12: 269–270. Nov. 13, 1867 (read Oct. 17, 1867).
–Repr.: *Mél. Biol. Bull. Acad. Sci. St.-Pétersbourg*, 6: 364–366. Compares gross features of endocranial casts of *Rhytina*, *Halicore*, and *Manatus*.
- Brandt, Johann Friedrich
1868a. Symbolae sirenologicae. Fasciculi II et III. Sireniorum, Pachydermatum, Zeuglodontum et Cetaceorum ordinis osteologia comparata, nec non Sireniorum generum monographie.
Mém. Acad. Sci. St.-Pétersbourg, (7)12(1): 1–384. 9 pls.
–Also separately published: Leipzig, Voss, 1869. Brandt's culminating monograph on the Sirenia, a continuation of Brandt (1846c), this massive work summarized the knowledge of the Sirenia available up to its time, emphasizing osteological comparisons with other orders of mammals.
- Brandt, Johann Friedrich
1868b. Wenige Worte in Bezug auf die Erwiederungen in Betreff der Vertilgung der nordischen Seekuh.
Bull. Soc. Nat. Moscou, 40(2): 508–524. [1868(1867), Heft 4?]
- x Brandt, Johann Friedrich
1868c. Bericht über den bereits gedruckten Zweiten und handschriftlich beendeten Dritten Fascikel der Symbolae sirenologicae.

- Bull. Acad. Sci. St.-Petersbourg*, (3)12: 471-474. Mar. 7, 1868 (read Dec. 12, 1867).
-?Repr.: *Mél. Biol. Bull. Acad. Sci. St.-Petersbourg*, 6: 588-592, 1867? Progress report on and summary of contents of the new installment of the *Symbolae Sirenologicae* (Brandt, 1868a).
- x Brandt, Johann Friedrich
1868d. Einige Worte über eine neue unter meiner Leitung entworfene ideale Abbildung der Steller'schen Seekuh.
Bull. Acad. Sci. St.-Petersbourg, (3)12: 457-458. Jan. 13, 1868 (read Nov. 28, 1867).
-?Repr.: *Mél. Biol. Bull. Acad. Sci. St.-Petersbourg*, 6: 571-572? Mentions the previously published drawings of *Hydrodamalis*, and announces that a new reconstruction made under his direction will appear in his forthcoming monograph (Brandt, 1868a).
- Brandt, Johann Friedrich
1868e. Über die Gruppierung der Gattungen der Ordnung der Sirenien.
Bull. Acad. Sci. St.-Petersbourg, (3)13: 21-23.
-?Repr.: *Mél. Biol. Bull. Acad. Sci. St.-Petersbourg*, 8: 593-596?
- Brandt, Johann Friedrich
1873. Untersuchungen über die fossilen und subfossilen Cetaceen Europa's.... Mit Beiträgen von Van Beneden, Cornalia, Gastaldi, Quenstedt und Paulson nebst einem geologischen Anhang von Barbot de Marny, G. v. Helmersen, A. Goebel und Th. Fuchs.
Mém. Acad. Sci. St.-Petersbourg, (7)20(1): viii + 372. 34 pls. Read Feb. 8, 1872; publ. Jun. 1873.
-Abstrs.: *Bull. Acad. Sci. St.-Petersbourg*, (3)17: 401-408, 1872?; *Zs. Natw.*, 44: 39-52, 1874? *Sirs.*, 366, etc.? This work also contains the first adequate description (166-188, pls. 14-18) of the fossil cetacean genus *Pachyacanthus* and its included species, whose names Brandt had previously employed as nomina nuda since 1871.
- Brandt, Johann Friedrich
1974. *Contributions to sirenology, being principally an illustrated natural history of Rhytina*. [Transl. by Alison Barlow.]
Belgrade, Nolit Publishing House, for the Smithsonian Institution and the U.S. National Science Foundation (NTIS Document No. TT 72-56004), 1-122. 5 pls.
-Transl. of Brandt (1846c). Rev.: D.P. Domning, *Jour. Mamm.*, 56(2): 556-558, May 30, 1975.
- Brandt, O.
1963. Principles of underwater acoustics. In: R. Busnel (ed.), *Acoustic behavior of animals*. Amsterdam, Elsevier Publ. Co. (933 pp.), 48-53.
- x Brash, J.C.
1927. The growth of the alveolar bone and its relation to the movements of the teeth, including eruption. *Dent. Rec.*, 46(12): 641-664; 47(1): 1-26. 4 tabs. 22 figs. 4 pls. Dec. 1, 1926; Jan. 1, 1927.
-?Abstr.: *Trans. Brit. Soc. Study Orthodont.*, 1926: 43? Demonstrates resorption and deposition of alveolar bone in *Manatus americanus* from the gross appearance of the septa (19-20).
- x Brash, J.C.
1953. Comparative anatomy of tooth-movement during growth of the jaws. *Dent. Rec.*, 73(5): 460-476. 16 figs. May 1953 (read Nov. 10, 1952).
-Compares the jaws of manatees and dugongs with those of warthogs and elephants, showing evidence of reworking of alveolar septa, which he believes is responsible for the forward movement of the teeth.
- Brassói Fuchs, Herman: SEE Fuchs, Herman Brassói.
Brattseva, Greta Mikhaylovna: SEE Sinel'nikova et al., 1985.
Brauer, K.: SEE Schober & Brauer, 1974.
Braun, M.
1906. Die Reste hinterer Extremitäten bei den Walen. *Schrift. Phys.-ökonom. Ges. Königsberg*, 46: 131.
- Braunitzer, Gerhard: SEE Czelusniak et al., 1990; Jacquet et al., 1989; Kleinschmidt et al., 1986, 1988.
Bravo-Hollis, M.; & Caballero Deloya, J.
1973. Catalogo de la coleccion helmintologica del Instituto de Biologia. *Inst. Biol. Univ. Nac. Autón. México, Publ. Especial*, 2: 1-138.
-Records *Chiorchis fabaceus* from *T. manatus* in Tampico, Mexico.
- Breck, W.G.: SEE Denton & Breck, 1981.
Brehm, A.C.
1877. *Brehms Thierleben*.
Leipzig. Ed. 2.
-Rev.: *Amer. Naturalist*, 12(10): 682-685, Oct. 1878. Numerous later eds. in German and Engl. (e.g., *Brehm's Life of Animals*, 1895; see also M. Hilzheimer, 1915). *Sirs.*, Vol. 3: 657-670.
- Brentjes, Burchard
1967. Maritime Säugetiere in den Kulturen des Alten Orient. *Zs. Säugetierk.*, 32(2): 114-125. 19 figs. Apr. 1967.
- Breton, Raymond
1665. *Dictionnaire Caraibe-françois*.
Auxerre.
-*Sirs.*, 349-350.
- Brew, Keith: SEE Pervaiz & Brew, 1986a, 1986b.
Brierly, Oswald W.: SEE Moore, D.R., 1979.

- Briggs, E.A.
1921. A naturalist on the Great Barrier Reef. *Austral. Mus. Mag.*, 1(3): 79–84. 7 figs.
–Dugongs and their oil (81–82).
- Brigham, William Tufts
1887. *Guatemala: the land of the quetzal*. London, T. Fisher Unwin; New York, C. Scribner's Sons, xv + 453. Illus.
–Notes that *T. manatus* was formerly hunted for hides and meat in Golfo Dulce (370).
- Brimley, C.S.
1946. The mammals of North Carolina. *Carolina Tips*, 9(1)(17): 2; 9(2)(18): 6. Jan. 1946.
–Records of *T. manatus* in Wrightsville in 1919 and Currituck Sound in 1934.
- x Brimley, H.H.
1931. The manatee in North Carolina. *Jour. Mamm.*, 12(3): 320–321. Aug. 24, 1931.
–Account of a manatee that was captured near Wilmington in 1919, and died in captivity during a cold spell.
- x Brinton, Daniel G.
1869. *A guide-book of Florida and the South, for tourists, invalids and emigrants, with a map of the St. John River*. Philadelphia, George Maclean; Jacksonville, Columbus Drew, 1–136.
–Facsimile reproduction, 1978. Notes the former abundance and the present supposed near-extinction of manatees in Florida, and states that “Two were caught on the Indian river in the commencement of 1869, and exhibited in Jacksonville and Savannah” (50–51).
- Brisson, Mathurin Jacques
1756. *Regnum animale in classes IX distributum, sive synopsis methodica sistens generalem animalium distributionem in classes IX, & duarum primarum classium, quadrupedum scilicet & cetaceorum, particularem divisionem in ordines, sectiones, genera & species, cum brevi cujusque speciei, descriptione citationibus auctorum de iis tractantium, nominibus eis ab ipsis & nationibus impositis, nominibusque vulgaribus*. [or] *Le regne animal divisé in IX classes, ou méthode contenant la division generale des animaux en IX classes, & la division particuliere des deux premieres classes, sçavoir de celle des quadrupedes & de celle des cetacées, en ordres, sectiones, genres & espèces. Aux quelles on a joint une courte description de chaque espèce, avec les citations des auteurs qui en ont traité, les noms qu'ils leurs ont donnés, ceux qui leurs ont donnés les différentes nations, & les noms vulgaires*. Paris, Cl. Jean-Baptiste Bauche, vii + 382.
–Allen 272. Text in Latin and French. Sirs., 49–51. In the second, Latin ed., having the same Latin title as above (Lugduni Batavorum [= Leiden], Theodor Haak: [6] + 296, 1762; “Editio altera auctior”), the sir. material is on pp. 164–166. Here, all known sir., explicitly including the dugong and Steller's sea cow as well as Amazonian and other manatees, are lumped in the genus *Phoca* and species *manatus*.
- British Guiana: SEE Board of Agriculture of British Guiana; Anon., 1973a, 1974c.
- Broch, H.
1924. Cirripedia. Parasitica Mauretania. Arthropoda. 2. partie. *Bull. Comm. Etud. Hist. Sc. Afr. Occ. Franç.*, 1924: 1–21. 6 figs.
- Bromme, Traugott: SEE Gistel & Bromme, 1850.
- Brongniart, Alexandre; & Cuvier, Frédéric
1834. Rapport fait à l'Académie des sciences sur un mémoire de M. Christol ayant pour objet de ramener au genre *Dugong* les débris fossiles que M.G. Cuvier avait rapprochés des hippopotames. *Ann. Sci. Nat. (Zool.)*, (2)1: 282–290.
–Allen 807. Abstr.: *L'Institut*, 2(52): 150? See de Christol (1832b).
- Bronn, Heinrich Georg: SEE ALSO Giebel, C.G.A., 1883; Leche, W., 1887.
- Bronn, Heinrich Georg
1838. *Lethaea geognostica, oder Abbildungen und Beschreibungen der für die Gebirgs-Formationen bezeichnendsten Versteinerungen*. Stuttgart, E. Schweizerbart (2 vols. + atlas, 1835–38), Vol. 2: 545–1350; atlas, pls. 28–47.
–Sirs., 840.
- Bronn, Heinrich Georg
1848. Handbuch der Geschichte der Natur. III. Band. I. Abt. III. Theil [first and second parts]: Organisches Leben (Fortsetzung). Index palaeontologicus oder Uebersicht der bis jetzt bekannten fossilen Organismen bearbeitet unter Mitwirkung der Herren Prof. H. R. Goepfert und Herm. v. Meyer. A. Nomenclator palaeontologicus in alphabetischer Ordnung... *Naturgesch. drei Reiche*, 15(1): vi + LXXXIV + 775; 15(2): 777–1382.
–Coins the new combinations *Halianassa Cordieri* and *H. Cuvieri*, 562; sir. also on 700?
- x Bronn, Heinrich Georg
1862. Bemerkungen über das zu dem älteren *Haliitherium*-Schädel gehörige Skelett. *Neues Jahrb. Min. Geogn. Geol. Pet.*, 1862: 416–418.

- Discusses features of the vertebrae, ribs, humeri, and tusks of a skeleton associated with the more mature of the two *Halitherium schinzii* skulls described by Krauss (1862b), and those of other specimens from the Mainz Basin.
- x Brookes, Joshua
1828a. *A prodromus of a Synopsis Animalium, comprising a catalogue raisonnée, of the zootomical collection of Joshua Brookes, Esq. F.R.S. etc. Part the First; and of the anatomical preparations, Part the Second: which will be sold by auction....* [Second title page] *Brookesian Museum. The museum of Joshua Brookes, Esq.*
London, printed by Gold and Walton, 1–20.
–The catalogue lists on p. 12 several specimens of the Order Cetacea, {“as well as a superb Cranium of a Dugong, and the inferior Maxillary Bone of another of the same family; also the Tusks of two others.”}
- Brookes, Joshua
1828b. *A catalogue of the anatomical and zoological museum of Joshua Brookes Part 1.*
London, Richard Taylor, 1–70.
–The new name *Halicore Syren* is said to have been introduced for the dugong on p. 40 of either this work or the following one.
- Brookes, Joshua
1830. *Museum Brookesianum. A descriptive and historical catalogue of the remainder of the anatomical and zootomical museum of Joshua Brookes ... comprising nearly one half of the original collection*
London, Richard Taylor, iv + 124.
- Brooks, John D.
1983. Manatees: man’s friend in need.
Scuba Times, 4(2): 28–29. 3 figs. Mar.–Apr. 1983.
- x Broom, Robert
1897. A contribution to the comparative anatomy of the mammalian organ of Jacobson.
Trans. Roy. Soc. Edinb., 39: 231–255. 2 pls.
–Assigns the Sirenia (together with the ungulates, etc.) to the eutherian grouping “Caenorhinata” on the basis of their supposed possession of “a well-developed organ of Jacobson” (252); but no further details or references are given to support this (incorrect) statement.
- x Broom, Robert
1901. On the ossification of the vertebrae in the wombat and other marsupials.
Proc. Linn. Soc. New South Wales, 25(4)(100): 735–739. Pl. 49. May 20, 1901.
–States that “in the manati and the beaver among Eutherians the transverse processes of the caudal vertebrae are developed autogenously,” and considers them homologous to ribs (739).
- x Broom, Robert
1915. On the organ of Jacobson and its relations in the “Insectivora”.—Part I. *Tupaia* and *Gymnura*.
Proc. Zool. Soc. London, 1915(2): 157–162. 2 pls. June 9, 1915 (read Apr. 13, 1915).
–Adds the Hyracoidea to the “Coenorhinata,” along with the Sirenia, ungulates, etc. (162).
- x Browder, Joan
1967. Can man save the manatee?
Florida Naturalist, 40(1): 3–5, 34. 2 figs. Jan. 1967.
–Account of Dr. Peter Sguros’ weed-control and other experiments with Florida manatees.
- Brower, Helen: SEE Masterson & Brower, 1948.
- x Brown, Arthur Erwin
1878. The Sirenia.
Amer. Naturalist, 12: 291–298. May 1878.
–More or less accurate gen. acc. of Recent sirs.; observations on an Orinoco River manatee kept at Philadelphia in 1876 (294–297), including an unsuccessful experimental attempt to lure it out of the water (295–296).
- Brown, Barbara E.: SEE Elias et al., 1987.
- x Brown, C. Barrington; & Lidstone, William
1878. *Fifteen thousand miles on the Amazon and its tributaries.*
London, Edward Stanford, xv + 520. Illus. 1 map.
–Accounts of manatee meat eaten at Jamaragua, Brazil (175–176), and of a manatee calf kept in captivity at Manaus (395–396, 1 fig.).
- Brown, David O.
1991. Siren song.
Calypto Log, April 1991: 14–16. 3 figs.
–Pop. acc. of manatees and other sirs.
- x Brown, J.N. Bish
1991a. Dugongs—a summary of their status in the UAE.
Tribulus: Bull. Emirates Nat. Hist. Group, 1(1): 20–21. 1 pl. Apr. 1991.
–Brief gen. acc. of dugongs, with most of the Arabian Gulf data based on Preen (1989), plus some original 1989 data on dugong mortality in Abu Dhabi.
- x Brown, J.N. Bish
1991b. [Recorder’s report for January–June 1991—mammals.]
Tribulus: Bull. Emirates Nat. Hist. Group, 1(2): 33. Oct. 1991.
–P. 33: {“There was Dugong (*Dugong dugon*) meat in the Abu Dhabi fish souq on 21st January and on 7th March. We have had no reports of the family of Dugongs that spent many years in the Futaisi channel, until one was killed.”}

- x Brown, Jamie
1993. Did dugongs die of muddy water? Bodies on beaches linked to lazy farming. *BBC Wildlife*, 11(4): 11. 2 figs. Apr. 1993.
—Pop. acc. of dugong mortality in Queensland and New South Wales, resulting from flood-caused turbidity and seagrass dieoff in Hervey Bay.
- Brown, Larry N.
1991. *Sea mammals: Atlantic, Gulf and Caribbean*. Miami, Windward Publishing, Inc., 1–64. Illus.
—Gen. acc. of sirs. and Florida manatees, 58–63, 4 figs.
- Brown, R.E.
1985. The marine mammals: orders, Cetacea, Pinnipedia, and Sirenia. In: R.E. Brown & D.W. Macdonald, *Social odours in mammals*. Vol. 2. Oxford, Clarendon Press (xii + 507–882), 723–731.
- Brown, Robin C.
1988. *Florida's fossils. Guide to location, identification and enjoyment*. Sarasota, Pineapple Press, 1–208. Illus.
- Brown, Sidney O.: SEE Enlow & Brown, 1958.
- Brown, William Perry
1914. On the trail of the Florida manatee. *Forest & Stream*, 82(21): 689–690.
- Brown, William Perry
1917. On trail of the Florida sea-cow. *Hunter-Trader-Trapper*, 34(4?): 57–62. Jan. 1917.
- x Browne, Micou M.; & Lee, David S.
1977. The manatee in North Carolina. [Abstr.] *A.S.B. Bull.* (Assoc. Southeast Biologists), 24(2): 40.
—An interview survey indicated that *T. manatus* still occurs in North Carolina from June to early October; habitat surveys suggested that a substantial manatee population could be supported there in the summer.
- Browne, Patrick
1756. *The civil and natural history of Jamaica*. London, printed for the author, viii + 503. 49 pls. 2 maps.
—Ed. 2, London, B. White & Son, 1789. Manatee, 459.
- Brownell, Robert L., Jr.: SEE ALSO Dailey & Brownell, 1972; Rathbun et al., 1988.
- x Brownell, Robert L., Jr.; Anderson, Paul K.; Owen, Robert P.; & Ralls, Katherine S.
1981. The status of dugongs at Palau, an isolated island group. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.). [Townsville (Australia)], James Cook Univ. (vii + 400), 19–42. 1 tab. 2 figs.
—Reviews historical data on dugongs at Palau, reports the results of two aerial surveys, discusses the natural history, habitat use, and poaching of Palauan dugongs, and recommends research and conservation measures. The population is estimated at no more than 50, with 13%–24% calves and an abundant seagrass supply, but the high rate of poaching seems likely to exterminate the population.
- x Brownell, Robert L., Jr.; & Ralls, Katherine S. (eds.)
1981. *The West Indian manatee in Florida. Proceedings of a workshop held in Orlando, Florida, 27–29 March 1978*. Cosponsored by Florida Audubon Soc.; Florida Dept. of Natural Resources; Natl. Fish & Wildl. Laboratory, U.S. Fish & Wildl. Serv.; & Sea World of Florida. Tallahassee, Florida Dept. Nat. Res., iv + 154.
—Includes a Preface by the editors (1–2); a report on the workshop (Brownell et al., 1981); 17 papers, two of them previously published elsewhere (Irvine & Campbell, 1978; Odell & Reynolds, 1979), and all listed in this bibliography under their authors; Moderator's Remarks by John F. Eisenberg (66) and Peter C.H. Prichard (102) that summarize some of these papers; and an Appendix (147–154) listing manatee carcasses salvaged in Florida from Apr. 1, 1974, through Dec. 31, 1977.
The included papers are by Irvine & Campbell, Rose, Reynolds, Powell, Powell & Waldron, Odell et al., Irvine et al., Beck et al., Campbell & Irvine, Odell & Reynolds, Beusse et al. (2), Zeiller, Asper & Searles, Jenkins, Odell, and Cardeilhac et al.
- x Brownell, Robert L., Jr.; Ralls, Katherine S.; & Reeves, Randall R.
1981. Report of the West Indian manatee workshop. In: R.L. Brownell, Jr., & K.S. Ralls (eds.), *The West Indian manatee in Florida. Proceedings of a workshop held in Orlando, Florida, 27–29 March 1978* (q.v.). Tallahassee, Florida, Dept. Nat. Res. (iv + 154), 3–16.
—Synthesizes data presented at the workshop with previously available data on Florida manatee abundance, reproductive biology, feeding, social behavior, human-caused and cold-related mortality, captive husbandry and breeding, and rehabilitation and release of captives. Points out where research is needed in these areas, and makes recommendations for management.

- x Bruemmer, Fred
1986. How the mermaid perished.
Internat. Wildlife Mag., 16(1): 24. 1 fig.
–Pop. acc. of the extermination of Steller's sea cow, with an artist's color impression of the animal.
- x Bruenderman, Sue; & Terwilliger, Karen
1994. Swimming beyond boundaries: the uncertain future of Virginia's marine mammals and sea turtles.
Virginia Wildlife, 55(1): 11–27. 40 figs. + cover photo. Jan. 1994.
–Brief pop. acc. of *Trichechus manatus* and its occurrences in Virginia (18–19).
- x Brünnich, Morten Thrane
1772. *Zoologiae fundamenta praelectionibus academicis accommodata. Grunde i dyrelaeren.* Hafniae et Lipsiae [= Copenhagen & Leipzig], Frider. Christ. Pelt, iv + 253.
–Text in Latin and Danish. *Manatus* listed in classification (34–35) and key (38–39); grouped under “Bruta” together with *Rosmarus*. This was the first use of the generic name *Manatus*; no species is mentioned in connection with it.
- Bruno, Giovanni Domenico
1839. Illustrazione di un nuovo cetaceo fossile.
Mem. Accad. Sci. Torino, (2)1: 143–160. Pls. 1–2.
–Allen 957. Summ.: *Neues Jahrb. Min. Geogn. Geol. Pet.*, 1840: 496–501 (in German). Describes *Cheirotherium sub-apenninum*, n.gen.n.sp.
- Brusque, Francisco Carlos de Araujo
1862. *Relatorio apresentado à Assembleia Legislativa da Provincia do Pará na primeira sessão da XIII Legislatura ... em 10. de setembro de 1862.* Pará, Impr. Typogr. Frederico Carlos Rhossard, 1–91. 6 tabs. appended.
–Lists (68), in table of products imported into the city of Pará, Brazil, in steamers of the “Companhia de Navegação e Commercio do Amazonas” in 1861, 23 potes of “mexira” (canned manatee meat) from the province of Amazonas and 3 potes from Obidos in the province of Pará, having a total value of 260 milreis.
- Bruss, M.L.: SEE Medway, Bruss et al., 1982.
- x Bryant, J. Daniel
1991. New early Barstovian (middle Miocene) vertebrates from the upper Torreya Formation, eastern Florida panhandle.
Jour. Vert. Pal., 11(4): 472–489. 3 tabs. 12 figs. Dec. 31, 1991.
–Reports “*Hesperosiren*” *crataegensis* as part of the Willacoochee Creek fauna (475–476, 481, 484, 486).
- Bryden, Michael M.: SEE ALSO Heinsohn et al., 1978.
- Bryden, Michael M.
1972. In: R.J. Harrison (ed.), *Functional anatomy of marine mammals*. Vol. 1: 1–79.
- Bryden, Michael M.; Marsh, Helene; & MacDonald, B.W.
1978. The skin and hair of the dugong. [Abstr.]
Austral. Jour. Anat., 126: 637–638. Read May, 1977.
- Břk., V.
1876. Morõh indický (*Halicore cetacea* Illig.).
Vesmír (Prague), 5: 196–198. 2 figs.
- Buchholz, Gert
1964. Lebt die Stellersche Seekuh noch?
Das Tier (Frankfurt a. M.), 3(1): Jan. 1964.
–Notice: *IUCN Bull.* (n.s.), No. 11: 4–5, Apr.–Jun. 1964.
- Büchner, Eugen
1891. Die Abbildungen der nordischen Seekuh (*Rhytina gigas*, Zimm.). Mit besonderer Berücksichtigung neu aufgefundenener handschriftlicher Materialien in Seiner Majestät Höchst Eigenen Bibliothek zu Zarskoje Sselo.
Mém. Acad. Sci. St.-Pétersbourg, (7)38(7): 1–24. 1 pl. Nov. 1891 (read May 29, 1891).
–First publication of Sven Waxell's manuscript containing his eyewitness description of Steller's sea cow. The pictures of *Hydrodamalis* referred to and reproduced in this paper probably derive from originals by Plenisner, according to the detailed analysis by L. Stejneger (1936: 511–522). See also S. Waxell (1940, 1962).
- Buckingham, Cheryl A.: SEE ALSO Turner & Buckingham, 1993.
- Buckingham, Cheryl A.
1990. An evaluation of manatee distribution patterns in response to public use activities in Kings Bay, Crystal River, Florida.
Florida Cooperative Fish & Wildlife Research Unit (Gainesville, Fla.), *Tech. Rept.*, No. 39: 1–49. 9 tabs. 15 figs. Jun. 22, 1990.
- Budiarso, Iwan T.: SEE ALSO Allen et al., 1976.
- x Budiarso, Iwan T.; Palmieri, James R.; Imes, George D., Jr.; Allen, John F.; & Lepes, Marta M.
1979. Two species of trematodes causing nasal lesions in dugongs.
Jour. Parasitol., 65(4): 568. Aug. 1979.
–Reports *Opisthotrema cochleotrema*, *O. dujonis*, and “*O. nasalis*” from the nasal septa and eustachian tubes of 3 dugongs from South Sulawesi, and describes lesions caused by *O. cochleotrema* and “*O. nasalis*.” The latter name is a nomen nudum equivalent to *Cochleotrema indicum* (see D. Blair, 1981a: 17).
- Budker, Paul
1939. Sur la prétendue existence des phoques dans la

region de l'île Shadwan (Mer Rouge).

Bull. Mus. Natl. Hist. Nat. (Paris), (2)11(5): 450–453. Jun. 1939.

Budker, Paul

1945. Pinnipèdes et siréniens d'Afrique.

Bull. Inst. Franç. Afr. Noire, No. 27: 4–6. Jul. 1945.

–Status of *T. senegalensis* in West Africa.

Bueno, Ramón

1933. *Apuntes sobre la provincia misionera de Orinoco e indígenas de su territorio, con algunas otras particularidades.*

Caracas, Tipogr. Americana, xviii + 164.

Buergelt, Claus D.: SEE ALSO O'Shea et al., 1991.

x Buergelt, Claus D.

1984. Observations on manatee mortality in northern Florida—a necropsy survey.

Proc. Internatl. Assoc. Aquatic Animal Med., 1(1): 28–29. Nov. 1984.

–Short summary of necropsy findings, 1980–83; mentions two cases of natural pathology, one with an encephalitic *Toxoplasma gondii* infection, one with gram-negative bacterial encephalitis.

x Buergelt, Claus D.; & Bonde, Robert K.

1983. Toxoplasmic meningoencephalitis in a West Indian manatee.

Jour. Amer. Veter. Med. Assoc., 183(11): 1294–1296. 3 figs.

–Histologic description of a case from Florida, said to be the first documentation of disease-caused natural death in a manatee. Drinking from sewer effluents is suggested as the possible cause of the disease.

x Buergelt, Claus D.; Bonde, Robert K.; Beck, Cathy A.; & O'Shea, Thomas J.

1984. Pathologic findings in manatees in Florida.

Jour. Amer. Veter. Med. Assoc., 185(11): 1331–1334. 1 tab. 4 figs.

–Describes and discusses necropsy findings in representative cases of boat kills (both impact and propeller wounds), ingestion of monofilament line, drowning, cold exposure, malnutrition, cachexia, and hematogenous bacterial meningoencephalitis and periventriculitis. Mentions the 1982 manatee dieoff caused by red tide near Ft. Myers, Florida.

x Buergelt, Claus D.; Bonde, Robert K.; Beck, Cathy A.; & O'Shea, Thomas J.

1990. Myxomatous transformation of heart valves in Florida manatees (*Trichechus manatus latirostris*).

Jour. Zoo & Wildlife Med., 21(2): 220–227. 3 tabs. 5 figs.

–Thickened atrioventricular valves, found in 8 of 26 manatee hearts, were studied histologically and

appeared to be incidental rather than pathological.

Buffon, George Louis Leclerc, Comte de: SEE ALSO Daubenton, L.J.M.

Buffon, George Louis Leclerc, Comte de

1782. *Histoire naturelle, générale et particulière... Supplément, Tome Sixième.*

Paris, Impr. Royale: viii + 405 + xxv. 49 pls.

–Allen 369. Supplement to Buffon & Daubenton (1765). *Sirs.*, 381–405.

Buffon, George Louis Leclerc, Comte de

1792. *Histoire naturelle des quadrupèdes... Tome septième.*

Berne, La Nouvelle Société Typographique, 5–296.

–Allen 423. *Sirs.*, 181–203, pl. 17.

Buffon, George Louis Leclerc, Comte de; & Cuvier, Georges

1826. *Oeuvres complètes de Buffon mises en ordre et précédées d'une notice historique par M. A. Richard...; suivies de deux volumes sur les progrès des sciences physiques et naturelles depuis la mort de Buffon, par M. le Baron Cuvier...*

Paris, Baudouin Frères & N. Delangle, 1–350.

–Allen 674. *Sirs.*, 294–334.

Buffon, George Louis Leclerc, Comte de; & Daubenton, L.J.M.

1765. *Histoire naturelle, générale et particulière, avec la description du Cabinet du Roi. Tome treizième.*

Paris, Impr. Royale, xx + 441. 59 pls.

–Allen 295. Later eds.: Buffon (1792); Buffon & Sonnini (1800); Buffon & Cuvier (1826); see also Buffon (1782). *Sirs.*, 330, 374–394, 425–432, 437–441, pls. 56–59.

Buffon, George Louis Leclerc, Comte de; & Sonnini, Charles Nicolas Sigisbert

1800. *Histoire naturelle, générale et particulière, par Leclerc de Buffon; nouvelle édition, accompagnée de notes, et dans laquelle les Suppléments sont insérés dans le premier texte, à la place qui leur convient. L'on y a ajouté l'histoire naturelle des quadrupèdes et des oiseaux découverts depuis la mort de Buffon, celle des reptiles, des poissons, des insectes et des vers; enfin, l'histoire des plantes dont ce grand naturaliste n'a pas eu le tems de s'occuper. Ouvrage formant un cours complet d'histoire naturelle; rédigé par C. S. Sonnini... Tome trente-quatrième.*

Paris, F. Dufart, An VIII [= 1800], 1–324.

–Allen 456. *Sirs.*, 184–226, 231–246, 327–330.

A later ed. (An X [= 1802]; Allen 463) is a reissue of this one, with only a change of date on the title-page and with the “Exposition méthodique” by Latreille (see Latreille, 1800) printed in smaller type and occupying 7 fewer pages (251–314),

which gives to the volume a different collation (316 pp.; with pls. 232–235).

- Buffrénil, Vivian de: SEE ALSO Domning & Buffrénil, 1991.
- x Buffrénil, Vivian de; Ricqlès, Armand de; Ray, Clayton Edward; & Domning, Daryl Paul
1990. Bone histology of the ribs of the archaeocetes (Mammalia: Cetacea). *Jour. Vert. Pal.*, 10(4): 455–466. 4 figs. Dec. 20, 1990.
–Compares the histology and functional significance of pachyostosis in sirs. with that in archaeocetes, where nearly identical morphological conditions occur (455, 463–465).
- x Buffrénil, Vivian de; & Schoevaert, Damien
1989. Données quantitatives et observations histologiques sur la pachyostose du squelette du dugong, *Dugong dugon* (Müller) (Sirenia, Dugongidae). *Canad. Jour. Zool.*, 67: 2107–2119. 2 tabs. 18 figs.
–Engl. summ. Examination of bone samples from various parts of the dugong skeleton showed that the increased bone volume is due to hyperostosis of the periosteal cortices, whereas the increased bone density is due to greater compactness and mineralization of the tissue. These effects are localized in the head and thorax. The increased compactness is due mainly to decrease of osteoclastic bone resorption and to endosteal deposits that fill the medullary regions. Possible endocrine controls on these processes are discussed. Pachyostosis in the dugong is considered adaptive rather than pathological.
- Bulliet, Richard W.
1975. *The camel and the wheel*. Cambridge, Harvard Univ. Press, xiv + 327. Illus.
–Mentions dugongs at an archaeological site in South Arabia.
- n Bullock, Theodore H.; Domning, Daryl Paul; & Best, Robin Christopher
1977. Hearing in a manatee (Sirenia: *Trichechus inunguis*). [Abstr.] *Proc. 2nd Conf. Biol. Marine Mamm.* (San Diego, Calif.), 72. Dec. 1977.
–Abstr. of Bullock et al. (1980).
- x Bullock, Theodore H.; Domning, Daryl Paul; & Best, Robin Christopher
1980. Evoked brain potentials demonstrate hearing in a manatee (*Trichechus inunguis*). *Jour. Mamm.*, 61(1): 130–133. 1 fig. Feb. 20, 1980.
–Portuguese transl.: Bullock et al. (1981). Abstr.: Bullock et al. (1977). Reports that the most effective frequency was circa 3 kHz. Compares the hearing range with the range of vocalizations in other sirs. The most sensitive region of the head was found to be over the zygomatic process of the squamosal.
- n Bullock, Theodore H.; Domning, Daryl Paul; & Best, Robin Christopher
1981. Potências cerebrais através do estímulo acústico (AEP) mostram a audição no peixe-boi (Sirenia: *Trichechus inunguis*). *Acta Amazonica*, 11(3): 423–427. 1 fig. Sep. 1981.
–Portuguese transl. of Bullock et al. (1980).
- x Bullock, Theodore H.; O'Shea, Thomas J.; & McClune, Michael C.
1982. Auditory evoked potentials in the West Indian manatee (Sirenia: *Trichechus manatus*). *Jour. Comp. Physiol.*, 148A(4): 547–554. 3 figs.
–Some ultrasonic sensitivity was detected (to 35–40 kHz); the most effective frequencies and power spectra were both found to be lower in *T. manatus* than in *T. inunguis*; the greatest sensitivity was found in the region of the external auditory meatus.
- x Bulman, Philip
1988. Manatees on collision course. *Sierra*, 73(6): 23. 1 fig. Nov.–Dec. 1988.
–Brief pop. acc. of boat-caused manatee mortality in Florida and efforts by the Florida Marine Patrol to enforce boat speed laws.
- Bunt, John S.: SEE Heinsohn et al., 1985.
- Burbridge, A.A.; & George, A.S.
1978. The flora and fauna of Dirk Hartog Island, Western Australia. *Jour. Roy. Soc. West. Austral.*, 60(3): 71–90. 7 figs.
- Burdon-Jones, C.: SEE Denton et al., 1980.
- Burke, Katy: SEE Bingham, B., 1981.
- Burkill, H.I.
1921. Under-sea meadows. *Gard. Bull. Straits Settlement*, 2(12): 444–445.
- x Burmeister, Hermann
1837. *Handbuch der Naturgeschichte. Zum Gebrauch bei Vorlesungen*. Berlin, Theod. Chr. Friedr. Enslin, xxvi + 858.
–Allen 911. Classifies, under Ordnung Pinnata, Zunft Cetacea, Fam. Sireniformia [new name?]: *Rhytine* [new spelling of generic name] *Stelleri*, *Manatus australis*, and *Halicore dugong* (792–793).
- Burmeister, Hermann
1854. *Systematische Uebersicht der Thiere Brasiliens, welche während einer Reise durch die Provinzen von Rio de Janeiro und Minas Geraës gesammelt oder beobachtet wurden. Erster Theil. Säugethi-*

ere (Mammalia).

Berlin, Georg Reimer, x + 341.

—Account of "*Manatus australis*" (*T. manatus*), 334–336.

x Burn, Douglas M.

1986. The digestive strategy and efficiency of the West Indian manatee, *Trichechus manatus*.

Comp. Biochem. Physiol. A. Comp. Physiol., 85(1): 139–142. 4 tabs. 1 fig.

—The cecum and colon were found to be the primary sites of digestion for both protein and lipid. Efficiency of cellulose digestion is very high, probably due to the slow rate of passage.

Burnell: SEE Yule & Burnell, 1903.

Burrell, Harry: SEE Le Soueff & Burrell, 1926.

Burrows, Dr.: SEE Harlan, R., 1824.

x Burton, Bill

1980. The creature from Eastern Bay.

Chesapeake Bay Mag., Nov. 1980: 19, 40–41. 2 figs.

—Eyewitness accounts of unknown sea creatures in and around the Chesapeake Bay, at least one of which was probably a manatee.

x Burton, Maurice

1951a. Animals in decline: Steller's sea-cow.

Illus. London News, 218: 178. 2 figs. Feb. 3, 1951.

—Pop. acc. illustrated by pictures of the sea cow from Pallas and the masticating plate from Steller. Opines that the beast was dying out anyway and that the human predation didn't make any real difference.

x Burton, Maurice

1951b. A scientists' legend.

Illus. London News, 219: 588. 4 figs. Oct. 13, 1951.

—Pop. acc. of the Sirenia. Refreshingly, he criticizes the theory that sirs. gave rise to the mermaid legend.

x Burton, Maurice

1957. Manatees, not mermaids.

Illus. London News, 230: 272. 2 figs. Feb. 16, 1957.

—Summarizes Moore's (1956) account of Florida manatee behavior, and again expresses doubt as to the sir. origin of the mermaid legend.

Bus, Vicomte du: SEE Du Bus, B.-A.-L., Vicomte.

Busch, F.

1892. Über die Bezahlung der schwimmenden Säugetiere (Cetaceen und Sirenen).

Verh. D. Odont. Ges., 3: 41.

Busnel, R.

1963. On certain aspects of animal acoustic signals. In: R. Busnel (ed.), *Acoustic behavior of animals*.

Amsterdam, Elsevier Publ. Co. (933 pp.), 69–111.

Butler, W.H.

1970. A summary of the vertebrate fauna of Barrow Island, W. A.

West. Austral. Nat., 11(7): 149–160. 1 map.

Büttikofer, Johann

1885. Zoological researches in Liberia.

Notes Leyden Mus., 7: 129–255. Pl. 6a. 1 map.

—Sirs., 144–147. See also F.A. Jentink (1888).

x Büttikofer, Johann

1890. *Reisebilder aus Liberia. Resultate geographischer, naturwissenschaftlicher und ethnographischer Untersuchungen während der Jahre 1879–1882 und 1886–1887. II. Band. Die Bewohner Liberia's.—Thierwelt.*

Leiden, E.J. Brill (2 vols.), Vol. 2: 1–510. Illus.

—Reports that *Manatus senegalensis* occurs in the lower reaches of all major Liberian rivers; mentions several specific localities, and briefly describes one 2.64-meter specimen. Notes that manatees are shot, speared, netted, and caught by fencing off streams at high water, and that in one place schools of them posed a danger to passing canoes (2: 392–393). The single drawing shows a manatee feeding partly out of the water.

Byczkowska-Smyk, W.

1979. [Can Sirenia be domesticated?]

Wszecławiat, 1976(4): 124–125.

—In Polish.

Byers, Anne M.

1982. Of manatees and mermaids.

Américas, 34(2): 20–25. 8 figs. Mar.–Apr. 1982.

x D Byers, F.M., Jr.

1959. Geology of Umnak and Bogoslof Islands, Aleutian Islands, Alaska.

U.S. Geol. Surv. Bull., 1028–L: 267–369.

—P. 289: [{"Vertebrate-fossil remains, chiefly teeth, have been found in greenish volcanic graywacke exposed in a quarry on the north side of Unalaska. These teeth were identified by G. Edward Lewis (written communication, 1954) as those of *Cornwallius* sp., a marine mammal of early Miocene age."}]

C

- Caballero Deloya, J.: SEE Bravo-Hollis & Caballero, 1973.
- Caballero y C., Eduardo: SEE Sokoloff & Caballero, 1932.
- Cabrera, Angel
1908. Lista de los mamíferos de las posesiones españolas del Golfo de Guinea.
Mém. Soc. Españ. Hist. Nat. (Madrid), 1(25): 435-456.
- x Cabrera, Angel
1961. Catalogo de los mamíferos de America del Sur. II (Sirenia—Perissodactyla—Artiodactyla—Lagomorpha—Rodentia—Cetacea).
Rev. Mus. Argent. Cienc. Nat. "Bernardino Rivadavia," Cienc. Zool. (Buenos Aires, Impr. y Casa Editora Coni), 4(2): 309-732. Aug. 25, 1961.
—Part I published 1958. Gives synonymies of *T. inunguis* and *T. m. manatus* and summarizes their distributions in South America (309-311).
- Cabrera, Angel; & Yepes, José
1940. *Mamíferos Sud-Americanos*. Buenos Aires, Comp. Argentina de Editores, 1-370.
—Ed. 2, 1960 (2 vols.). *Sirs.*, 287-290. The accompanying painting shows manatees hauled out on land!
- Cabrero, Narciso Rabell: SEE Rabell Cabrero, Narciso.
- Cadée, M.C.: SEE Bosch et al., 1975.
- x Cadenat, J.
1957. Observations de cétacés, siréniens, chéloniens et sauriens en 1955-1956.
Bull. Inst. Franç. Afr. Noire, sér. A, 19(4): 1358-1375. Oct. 1957.
—Records cases of manatees caught accidentally in shark nets in Senegal, with other observations including one of a manatee surprised on shore (1368-1369).
- Caffin, John E.: SEE Irvine, Caffin, & Kochman, 1981; Irvine et al., 1982.
- Cahalane, Victor H.: SEE ALSO Beard et al., 1942.
- x Cahalane, Victor H.
1948. The status of mammals in the U.S. National Park System, 1947.
Jour. Mamm., 29(3): 247-259. Aug. 31, 1948.
—Notes that manatees are protected in the Everglades National Park, and that several were apparently killed by cold weather in 1946-1947 (258).
- x Cahn, A.R.
1940. Manatees and the Florida freeze.
Jour. Mamm., 21(2): 222-223. May 14, 1940.
—Report of 5 manatees found dead near Ft. Myers, Florida, in Jan. 1940; probably killed by freeze. (An additional individual was reported by Hamilton, 1941.)
- Cailleux, André; & Feugueur, L.
1947. Présence d'*Halitherium schinzi* dans le stampien inférieur de Corneilles-en-Parisis (Seine-et-Oise).
C. R. Soc. Géol. France, No. 11: 217-218.
- Caldwell, David K.: SEE ALSO Caldwell, Melba C.
- Caldwell, David K.
1974. The need for studies of marine mammals in the eastern Gulf of Mexico. In: R.E. Smith (ed.), *Proc. Marine Environmental Implications of Offshore Drilling in the Eastern Gulf of Mexico*. St. Petersburg, State Univ. Syst. Florida, Inst. Oceanogr., 339-343. Mar. 1974.
- Caldwell, David K.; & Caldwell, Melba C.
1973. Marine mammals. Sec. 1. In: J.I. Jones, R.E. Ring, M.O. Rinkel, & R.E. Smith (eds.), *A summary of knowledge of the eastern Gulf of Mexico*. State Univ. Syst. Florida, Inst. Oceanogr.
- Caldwell, David K.; & Caldwell, Melba C.
1985. Manatees—*Trichechus manatus* Linnaeus, 1758; *Trichechus senegalensis* Link, 1795, and *Trichechus inunguis* (Natterer, 1883). In: S.H. Ridgway & R.J. Harrison (eds.), *Handbook of marine mammals. Volume 3: The sirenians and baleen whales*. London & Orlando, Academic Press, 33-66. Illus.
—Rev.: G.B. Rathbun, *Mar. Mamm. Sci.*, 2(3): 236-237, Jul. 1986.
- Caldwell, David K.; & Golley, F.B.
1965. Marine mammals from the coast of Georgia to Cape Hatteras.
Jour. Elisha Mitchell Sci. Soc., 81(1): 24-32.
- x Caldwell, Fred T., Jr.; Sherman, Eloise B.; & Levitsky, Katherine
1969. The composition of bladder bile and the histological pattern of the gallbladder and liver of the sea cow.
Comp. Biochem. Physiol., 28(1): 437-441. 3 figs.
—Report of cholic, deoxycholic, and chenodeoxycholic acids found in bile of four Australian dugongs; cholesterol and lecithin found in very

low concentrations; large hemosiderin deposits found in the liver.

Caldwell, Melba C.: SEE ALSO Caldwell, David K.

x Caldwell, Melba C.; & Caldwell, David K.

1972. Behavior of marine mammals. In: S.H. Ridgway (ed.), *Mammals of the sea: biology and medicine*. Springfield, Ill., Charles C Thomas, 419–465.

–Detailed, illustrated account of a mating herd of Florida manatees (446–448); observations on play (450) and feeding (454) in captive animals.

Callcott, John: SEE Begley et al., 1983.

Calvert, Albert Frederick

1917. *The Cameroons*.

London, T.W. Laurie, Ltd., xxi + 82. Frontisp. 191 pls. 9 maps.

–Sirs., pl. 177.

Calzada, S.

1969. Litoestratigrafía y paleontología de unas arenas del Miocene de Sant Pere de Ribes, (Garraf, Barcelona).

Acta Geol. Hispánica, 4(2): 29–34.

–Reports ribs of *Metaxytherium*.

Camacho, Jorge I. Hernández

1971. *Potencial y bases para la prospección de la fauna silvestre de la Amazonia Colombiana*.

Bogotá, Inst. de Desarrollo de los Recursos Naturales Renovables, 1–66.

Camelli, G.J.

1706. De piscibus, moluscis & crustaceis Philippen-sibus.

Philos. Trans. Roy. Soc. London, 24(302): 2043–2080 [i.e., 2085–2089].

–Allen 160. Includes a description of “Dugong Indorum.”

Camerano, L.

1915. Contributo allo studio dei wormiani palato palatini e dei wormiani medio palatini di Calori nei mammiferi.

Boll. Mus. Zool. Anat. Torino, 30(706): 1–8. 4 pls.

–Sirs., 6, pl. 3, fig. 5.

xD Camp, Charles L.

1940. History of vertebrate paleontology on the West Coast.

Proc. 6th Pacif. Sci. Congr. (Berkeley, Stanford, & San Francisco, Jul. 24–Aug. 12, 1939), 3: 643–646.

–P. 645: {“Dr. O.C. Marsh procured from him [Lorenzo G. Yates of Santa Barbara] the type tooth of *Desmostylus*—a sea-cow-like marine mammal whose relationships have only lately been worked out.”}

xD Camp, Charles L.

1963. Old Doctor Yates.

Jour. of the West, 2(4): 377–400. 5 figs. Oct. 1963.

–Biographical sketch of Lorenzo G. Yates, including an account of the discovery of the first *Desmostylus* specimens in a boulder in the bed of Alameda Creek in 1869. Marsh’s holotype, however, evidently came from a hill near Arroyo del Valle, 5–6 miles south of Livermore, and a mile or so south of Cresta Blanca Winery, Alameda County, Calif. Fig. 1 reproduces Yates’ broadside (1877) describing the find (387–389).

Campana, D. del

1924. Un nuovo resto di sirenoide del miocene superiore della Provincia di Catanzaro.

Riv. Ital. Paleont. Parma, 30: 53–55.

Campbell, David G.

1978. *The ephemeral islands: a natural history of the Bahamas*.

London, Macmillan.

–Manatees, 21, 28–34, 109.

Campbell, Fred: SEE Welsby, T., 1967.

Campbell, Howard W.: SEE ALSO Irvine & Campbell, 1978; Irvine, Odell, & Campbell, 1981.

x Campbell, Howard W.

1976. The Florida manatee and related species.

Plaster Jacket (Florida St. Mus.), No. 25: 1–10. 1 fig. Jul. 1976.

–Gen. acc. of sirs., their distribution and status, and current research programs.

x Campbell, Howard W.

1977. Mammalia; Sirenia; Trichechidae (manatees). In: J.E. Cooper, S.S. Robinson, & J.B. Funderburg (eds.), *Endangered and threatened plants and animals of North Carolina*.

Raleigh, N. Car. St. Mus. Nat. Hist. (xvi + 444), 396–397.

–Gen. acc. of *T. manatus* biology and status, with remarks on its occurrence in North Carolina.

x Campbell, Howard W.; & Gicca, Diderot

1978. Reseña preliminar del estado actual y distribución del manatí (*Trichechus manatus*) en México.

An. Inst. Biol. Univ. Nac. Autón. México (Ser. Zool.), 49(1): 257–264. 4 figs.

–Engl. summ. Interviews and a brief aerial survey showed manatees to be scarce in Mexico due to past hunting and habitat destruction, but now are seldom hunted and probably not in immediate danger of extinction.

x Campbell, Howard W.; & Irvine, A. Blair

1977. Feeding ecology of the West Indian manatee *Trichechus manatus* Linnaeus.

Aquaculture, 12: 249–251.

–Brief summary of some available information on

the diet of *T. manatus* in Florida, mostly taken from Hartman.

- x Campbell, Howard W.; & Irvine, A. Blair
1981. Manatee mortality during the unusually cold winter of 1976–1977. In: R.L. Brownell, Jr., & K. Ralls (eds.), *The West Indian manatee in Florida. Proceedings of a workshop held in Orlando, Florida, 27–29 March 1978* (q.v.). Tallahassee, Florida Dept. Nat. Res. (iv + 154), 86–91. 1 tab. 2 figs.
–Analyzes mortality during the coldest winter in Florida's history, based on 54 salvaged carcasses; 38 of these deaths were attributed to cold. Suggests that artificial warm-water sources north of manatees' historic range on the east coast may be diverting them from their usual southward wintertime movements, and that inadequacy or shutdown of these sources results in manatee deaths during severe winters.
- Campbell, Howard W.; & Powell, James Arthur, Jr.
1976. Endangered species: the manatee. *Florida Naturalist*, 49(2): 15–20. 5 figs. Apr. 1976.
- x Campbell, R.S.F.; & Ladds, P.W.
1981. Diseases of the dugong in north-eastern Australia: a preliminary report. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.). [Townsville (Australia)], James Cook Univ. (vii + 400), 176–181. 1 tab.
–Notes cases of dermatitis, pneumonia, parasitic lesions, enteritis, salmonellosis, hepatitis, haemosiderosis, and other pathological conditions in 15 dugongs from Queensland.
- Camper, Petrus
1786? Kort berigt wegens den Dugon van den Graave de Buffon. Den 11 Juny, 1786. In: *Kleinere Schriften die Arzneykunst und fürnehmlich die Naturgeschichte betreffend*. Leipzig, S.L. Crusius (4 vols. in 1, 1782–87), 3(1): 20–31.
–Transl. from Dutch. French ed., Paris, Henri J. Jansen, 2: 479–491, pl. 7, 1803 (Allen 467).
- Canavan, W.P.N.
1934. On a trematode *Allopyge undulatus* n. sp. parasitic in Lilford's crane (*Megalornis grus lilfordi*). *Parasitology*, 26: 117–120.
–Records *Chiorchis fabaceus* from a captive *T. manatus* in Philadelphia.
- x Cañigueral, Juan
1952. Un notable sirénido en Mallorca. *Ibérica*, (2)16(245): 387–390. 6 figs. Nov. 15, 1952.
- Describes a tusk and molars of *Metaxytherium* from supposedly Miocene deposits of Mallorca.
- x Canocchi, Daniela
1987. On a skull of a sirenian from the Early Pliocene of Siena, Tuscany. *Riv. Ital. Paleont. Strat.*, 92(4): 497–513. 1 tab. 8 figs. Pls. 39–40. Mar. 1987.
–Italian summ. Edited for publication by A. Azzaroli. A skull from Ruffolo is briefly described and referred to *Metaxytherium gervaisi*, which is considered intermediate between *M. serresii* and *M. forestii*. Other Pliocene skulls from Italy and southern France are illustrated for comparison, but their characters are not discussed in any detail.
- Canova, Andrew P.; & Perkins, Lindsay Sanders
1885. *Life and adventures in south Florida*. Palatka (Florida), The Southern Sun Publ. House, 1–136.
–Ed. 2: Tampa, Tribune Printing Co., 1–158, 1906. States that Seminole Indians once sold manatee meat to Spaniards; numbers of manatees now declining.
- x Cansdale, G.
1964. The Volta Dam may help wildlife in Ghana. *Oryx*, 7(4): 168–171. 1 fig. Apr. 1964.
–States that manatees may still occur above the dam and may still be ritually hunted; though they are theoretically protected, enforcement is still required (170–171).
- x Cansdale, George Soper
1970. *All the animals of the Bible lands*. Grand Rapids (Michigan), Zondervan Publ. House, 1–272. 24 pls. 2 maps.
–British ed.: *Animals of Bible lands*, Exeter, Paternoster, 1970. Contains one of the most thorough discussions I have seen of the identity of the biblical *tachash*; concludes that this animal was probably the dugong (138–139).
- x Cantley, Roland
1973. A siren is dying. *Walkabout*, 39: 34–35, 52. 1 fig. Jan. 1973.
–Describes the status of dugongs in Australia and the disastrous effects of shark nets, pollution, and noise. Notes the presence of herds of 50 or more in Torres Strait “30 years ago.”
- Cantor, Theodore Edward
1846. Catalogue of Mammalia inhabiting the Malayan peninsula and islands. *Jour. Asiatic Soc. Bengal*, 15: 171–203, 241–279.
–Lists *Halicore*, 274, 279?
- x Capellini, Giovanni
1865. [On *Felsinotherium*.] In: Seconda riunione straordinaria della Società Italiana di Scienze Naturali tenuta alla Spezia nei giorni 18, 19, 20 e 21

settembre 1865. Sezione di paleontologia. 21 settembre 1865.

Atti Soc. Ital. Sci. Nat. Milano, 8: 281–284. Read Sep. 21, 1865.

–Summary by Paolo Lioy of Capellini's presentation, in which he proposed the new generic name *Felsinotherium* [nomen nudum; 281], admitting at the same time (282) that its type species [later to be named *F. forestii*] is identical with that of *Cheirotherium* Bruno [i.e., *C. subapenninum*]!

Capellini, Giovanni

1872. Sul Felsinoterio, sirenoide halicoreforme dei depositi littorali pliocenici dell'antico Bacino del Mediterraneo e del Mar Nero.

Mem. Accad. Sci. Ist. Bologna, (3)1: 605–646. 8 pls. Read Feb. 15, 1872.

–Abstr.: *Rend. Accad. Sci. Bologna*, 1871–72: 50–55? Also exists as a separate in 49 pp. + 8 pls., reset with different page breaks. This is Capellini's most important work on sirs., in which he names the genus *Felsinotherium* (615) and the species *F. Forestii* (617) and *F. Gervaisi* (634), both from the Pliocene of Italy.

Capellini, Giovanni

1878. Della pietra leccese e di alcuni suoi fossili.

Mem. Accad. Sci. Ist. Bologna, (3)9(2): 227–258. 3 pls. Read Mar. 21, 1878.

–Abstr.: *Rend. Accad. Sci. Bologna*, 1877–78: 111–113?

Capellini, Giovanni

1886a. Sopra resti di un sirenio fossile (*Metaxytherium lovisati*, Cap.) raccolti a Monte Fiocca presso Sassari in Sardegna.

Mem. Accad. Sci. Ist. Bologna, (4)7: 39–53. 1 pl. Read Feb. 14, 1886.

–Abstr.: *Rend. Accad. Sci. Bologna*, 1885–86: 46–47?

Capellini, Giovanni

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Cardeilhac, Paul T.; White, Jesse R.; & Francis-Floyd, Ruth

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- Carus, Julius Victor
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–Account written 1541–1542; originally edited by J.T. Medina; transl. from Spanish by B.T. Lee. First ed.: Seville, E. Rasco, ccxxxix + 278, 1894. Sirs., 190, 239, 319, 417, 419, 422. Considered by Whitehead (1977) to be the earliest account of *T. inunguis*.
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- x Carvalho, José Cândido de Melo
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- Castelnau, F. de: SEE Gervais, F.L.P., 1855a.
- x Castro, Eugenio de
1929. O “pôrto de Pernambuco” e o porto do “Rio de Pernambuco” em 1530: Um aspecto classico da navegação quinhentista. *Rev. Inst. Archeol. Hist. Geogr. Pernambucano*, 29(139): 157–161.
–Refers to “sea monsters” [more likely sea lions than manatees] seen at the “Rio de Pernambuco or Igaracu” circa 1526 (160).
- Castro, Eurico Freundt de: SEE Freundt de Castro, Eurico.
- Castro, Francisco de Soza de: SEE Soza de Castro, Francisco de.
- Castro, Napoleón: SEE Neville et al., 1976.
- x Caton, Albert
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1980. Dugong: a special animal in ritual and tradition. *Aboriginal News*, 3(8): 15–17. 2 figs.
- Catullo, Tommaso Antonio
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–Abstr.: *Taschenb. Ges. Mineral*, 1828, 445–475?
- Catzigras, F.: SEE Anglada et al., 1974.
- x Cave, A.J.E.
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1989. Vanuatu—safe haven for the dugong. *The Pilot* (Nairobi, IUCN & UNEP Marine Mammal Action Plan), No. 4: 13–14. 2 figs. Sep. 1989.
–Pop. acc. of aerial and questionnaire surveys in 1987–1988, concluding that the dugong population is sparse but apparently stable, and that questionnaires are much more suitable for areas like Vanuatu than aerial surveys.
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1989? [Title?]
South Pacif. Regional Environ. Programme Topic Review, No. 37.
- Chancellor, Deborah: SEE Schad et al., 1981.
- Channells, Peter W.: SEE ALSO Marsh et al., 1982; Marsh, Heinsohn & Channells, 1984.
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1981. Technique for the analysis of seagrass genera present in dugong stomachs, including a key to North Queensland seagrasses based on cell details. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979*, (q.v.).
[Townsville (Australia)], James Cook Univ. (vii + 400), 303–309. 1 pl.
–Describes a technique for quantifying the generic composition of digesta samples, and gives a key to seven genera based on epidermal cells.
- Chapman, Douglas G.: SEE Eberhardt et al., 1979.
- x Chapman, Henry C.
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1677. *Exercitationes de differentiis et nominibus animalium. Quibus accedunt Mantissa anatomica, et quaedam de variis fossilium generibus, deque differentiis & nominibus colorum. Editio secunda*

duplo fere auctior priori, novisque iconibus ornata.

Oxford, E Theatro Sheldoniano.

—Ed. 1, 1668. In 3 parts. Piscium Cetaceorum Classis (pars ii), 8: Manati, p. 49.

Charlevoix, Pierre François Xavier de

1744. *Histoire et description generale de la Nouvelle France, avec le journal historique d'un voyage fait par ordre du Roi dans l'Amérique Septentrionale.*

Paris, Veuve Ganeau (3 vols.). Maps.

—Allen 222 & 223, which see for more data. Actually five eds. were issued at Paris by different publishers in 1744; in addition to those by Ganeau and Giffart cited by Allen, there are eds. by Didot, Nyon, and Rollin. "Vache marine," 143–149.

x Charnock-Wilson, John P.

1968. The manatee in British Honduras.

Oryx, 9(4): 293–294. Pls. 13–14. May 1968.

—Brief account of the ecology, habits, and status of *T. m. manatus*; concludes that the species is abundant and not endangered in British Honduras.

x Charnock-Wilson, John P.

1970. Manatees and crocodiles.

Oryx, 10(4): 236–238. May 1970.

—States that manatees appear to be numerous and thriving in British Honduras, and seldom hunted by man (236).

Charnock-Wilson, John P.; Bertram, Cicely Kate Ricardo; & Bertram, George Colin Lawder

1974. The manatee in Belize.

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—Abstr.: *Oryx*, 13(3): 230, Feb. 1976.

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1980. Cultural continuity: land and resource among East Cape York Aborigines. In: N.C. Stevens & A. Bailey (eds.), *Contemporary Cape York Peninsula*.

Brisbane, Royal Society of Queensland, 83–88.

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1981. Dugongs and indigenous cultural systems: some introductory remarks. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979*, (q.v.).

[Townsville (Australia)], James Cook Univ. (vii + 400), 112–122.

—Outlines Australian Aboriginal practices and attitudes regarding use of dugongs and other resources, arguing that the adoption of European technology may not necessarily lead to greater resource exploitation.

x Chavanon, S.; & Saubade, A.M.

1970. Découverte d'un squelette d'*Halitherium* Kaup

aux environs de Saint-Emilion (Gironde).

Bull. Inst. Géol. Bassin Aquitaine, 8: 261–262. 3 figs.

—Engl. summ. Reports ribs and vertebrae from the Calcaire à Astéries (Oligocene).

Cheek, Henry H.

1830. On the natural history of the dugong, (*Halicore indicus*, Desm.)—the mermaid of early writers; and particularly on the differences which occur in its dental characters.

Edinburgh Jour. Nat. & Geogr. Sci., 1: 161–172. "Dec. 1829" (read to Roy. Phys. Soc. Edinb., Nov. 3, 1829).

—Allen 744.

x Cheesman, R.E.

1926. *In unknown Arabia*.

London, Macmillan & Co., Ltd., xx + 447.

—The appendix contains a brief note on the presence of the dugong in the Red Sea (348; m350).

x Chelnokov, F.G.

1969. Ostatki skeleta morskoi korovy. [Sea cow skeletal remains.]

Priroda (Moscow), 1969(1): 71–73. 3 figs.

—Describes the collection of skulls and other bones of *Rhytina* on Bering Island in 1967, and suggests that the bone accumulations there are the result of the 18th-century butcherings.

Chen, C.L.: SEE Francis-Floyd et al., 1991.

Chen, David H.: SEE Mou Sue et al., 1990.

Cherepanov, Stepan: SEE Domning, D.P., 1978b.

x Chermont de Miranda, Vicente

1905. *Glossario paraense ou collecção de vocabulos peculiares á Amazonia e especialmente á Ilha do Marajó*.

Pará, Livr. Maranhense, v + 120.

—Discusses the etymology of the Tupi word "michira," used for manatee meat fried and preserved in its own fat (62).

Chernova, O.F.: SEE Sokolov, Chernova et al., 1986.

Chetyrbok, I.S.: SEE Mukhametov et al., 1992.

Chiji, Manzo: SEE Ikebe et al., 1972.

Child, Gilbert S.: SEE Henshaw & Child, 1972.

Chin, L.

1971. Protected animals in Sarawak.

Sarawak Mus. Jour., 19: 359–361.

Ching, John Lionel

1888. *Halicore dugong australis*.

Melbourne, printed by J.J. Miller, 1–7.

—Advertising brochure for dugong oil.

Chinzei, Kiyotaka: SEE ALSO Ikebe et al., 1972.

D Chinzei, Kiyotaka

1984. Modes of occurrence, geologic range and geographic distribution of desmostylians.

Monogr. Assoc. Geol. Collab. in Japan, 28:

- 13–23. 4 figs. May 1984.
–In Japanese; Engl. summ.
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1893. From furthest south. A sportsman's pets.
Forest & Stream, 40(18): 381. 1 fig. May 4, 1893.
- x Chow, Barbara A.
1991. Diet and the West Indian manatee.
Jamaica Naturalist, 1: 36. 1 fig.
–Very brief pop. acc. of manatee digestion.
- Christmas, W.
1892. *Amazonfloden: erindringer og skildringer*.
Copenhagen, Gyldendalske Boghandels Forlag
(F. Hegel & Søn): 1–249. Illus.
–Manatee, 51–52.
- Christol, Jules de
1832a. Comparaison de la population contemporaine des mammifères de deux bassins tertiaires du département de l'Hérault.
Ann. Sci. Indust. du Midi de la France (Soc. de Statistique de Marseilles), 1: 215–224, 273–296, Pls. 5–6; 2: 15–29.
–Abstr.: *Bull. Soc. Géol. France*, (3)128, 1833?; *L'Institut*, 2(42): 75–76, Mar. 1, 1834 (Allen 809). Read to Acad. Sci. Paris, Feb. 24, 1834. ?Repr.: *Ann. Sci. Nat. (Zool.)*, (2)4: 193–238, 1835 (Allen 844)?
- Christol, Jules de
1832b. Mémoire sur le moyen hippopotame fossile de Cuvier, replacé au genre des dugongs.
Ann. Sci. Indust. du Midi de la France (Soc. de Statistique de Marseilles), 2: 161–176, 241–253. Pls. 6–7.
–Abstr.: *L'Institut*, 2: 71. Reprinted, somewhat abbreviated and with minor editorial changes, in *Ann. Sci. Nat. (Zool.)*, (2)2: 257–277, pl. 13, 1834 (Allen 810) [publ. Mar. 25, 1835, *fide* de Blainville, 1844: 95]. The new specific name *Halicore Cuvierii* is given on p. 244 (274 in 1835 ed.). See also Brongniart & Cuvier (1834).
- Christol, Jules de
1840. Recherches sur divers ossements fossiles attribués par Cuvier à deux phoques, au lamantin, et à deux espèces d'hippopotames, et rapportés au *Metaxytherium*, nouveau genre de cétacé de la famille des dugongs.
L'Institut Ann. 8, Sect. 1, No. 352: 322–323. Sep. 24, 1840.
–Allen 980. Abstr.: *Rev. Zool.*, 3: 283, Sep. 1840 (Allen 979); *C.R. Acad. Sci. Paris*, 11(12): 527–529, read Sep. 21, 1840. All of these summarize the memoir published in full as de Christol (1841a). The notice in *L'Institut*, apparently the first of these to appear in print, was the first publication of the generic name *Metaxytherium*.
- Christol, Jules de
1841a. Recherches sur divers ossements fossiles attribués par Cuvier à deux phoques, au lamantin, et à deux espèces d'hippopotame, et rapportés au *Metaxytherium*, nouveau genre de cétacé, de la famille des dugongs.
Ann. Sci. Nat. (Zool.), (2)15: 307–336. Pl. 7. Read to Acad. Sci. Paris, Sep. 21, 1840.
- Christol, Jules de
1841b. Nouvelles recherches sur le *Metaxytherium*.
C.R. Acad. Sci. Paris, 12: 119–120.
–Abstr.: *L'Institut*, 9: 11–12?
- Chu, Dan; & Dampier, Cindy
1990. Florida's sea doc, Jesse White, fights to save the gentle, helpless manatee.
People Mag., [vol.?] 2 pp. 4 figs.
- Church, A.E.
1945. The dugong hunt.
Walkabout, 11(7): 29–30. 1 fig. May 1, 1945.
–Pop. acc. of dugong hunt at Sabai Is., Torres Strait, Australia.
- Cichra, C.E.: SEE Francis-Floyd et al., 1991.
- Cigala-Fulgosi, Franco: SEE ALSO Pilleri & Cigala-Fulgosi, 1989.
- Cigala-Fulgosi, Franco; & Pilleri, Georg
1985. The Lower Serravallian cetacean fauna of Visiano (Northern Apennines, Parma, Italy).
Invest. Cetacea, 17: 55–116.
- Cilento, Raphael; & Lack, Clem (eds.)
1959. *Triumph in the tropics: an historical sketch of Queensland*.
Brisbane, Smith & Paterson Pty. Ltd., 1–446. Illus.
–Account of the Queensland dugong fishery, 219–221.
- Clapp, F.G.: SEE Matson & Clapp, 1909.
- Clark, B.
1976. Florida manatee born at Miami Seaquarium on 3 May, 1975.
Internatl. Zoo News, 131: 37–38.
- D Clark, Bruce L.; & Arnold, Ralph
1923. Fauna of the Sooke Formation, Vancouver Island.
Univ. Calif. Publ. Bull. Dept. Geol. Sci., 14(5): 123–234. Pls. 15–42. Nov. 6, 1923.
–Discussion of *Desmostylus sookensis*, 178–179.
- x Clark, Eugenie
1953. *Lady with a spear*.
New York, Harper & Bros., xii + 243. Illus.
–Account of Red Sea dugongs (175–176, 212, 224–225, 3 pls.).
- x Clark, J.W.
1889. On the skeleton of *Rhytina gigas* lately acquired for the Museum of Zoology and Comparative Anatomy, with some account of the history and extinction of the animal.

Proc. Cambridge Philos. Soc., 6: 340–342. Read Feb. 25, 1889.

—States (342) that the skeleton was acquired through the U.S. National Museum, and came from Bering Island.

Clark, James M.: SEE ALSO Domning & Clark, 1993.

xD Clark, James M.

1991. A new early Miocene species of *Paleoparadoxia* (Mammalia: Desmostylia) from California. *Jour. Vert. Pal.*, 11(4): 490–508. 5 tabs. 6 figs. Dec. 31, 1991.

—Describes *P. weltoni*, n.sp. (494), based on the anterior half of a skeleton from the earliest Miocene Skooner Gulch Formation, Point Arena, California. The phylogenetic relationships of the species are emphasized, and a cladistic analysis of the Desmostylia is presented.

xD Clark, Joseph C.

1981. Stratigraphy, paleontology, and geology of the central Santa Cruz Mountains, California Coast Ranges.

U.S. Geol. Surv. Prof. Paper, 1168: iv + 51. 7 tabs. 14 figs. 2 pls.

—Reports *Desmostylus hesperus*, *Paleoparadoxia tabatai*, and *Halianassa vanderhoofi* from the Santa Margarita Formation, and the latter species also from the Purisima Formation (both Late Miocene) (27–28, 34).

Clark, Joseph C.; Brabb, E.E.; & Addicott, Warren O.

1979. Tertiary paleontology and stratigraphy of the central Santa Cruz Mountains, California Coast Ranges.

Guidebook Geol. Soc. Amer. Cordilleran Sect. 75th Ann. Meeting, 1–23. Apr. 1979.

Clark, Margaret Goff

1990. *The vanishing manatee*.

New York, Cobblehill Books, 1–64. 25 figs.

—Rev.: Susan Markley, *Sea Frontiers*, 37(4): 60, Aug. 1991. Children's book, emphasizing research and conservation efforts on behalf of the Florida manatee. Well illustrated with color photos, mostly by Patrick M. Rose.

Clark, W.E. Le Gros; & Sonntag, Charles F.

1926. A monograph of *Orycteropus afer*.— III. The skull.

Proc. Zool. Soc. London, 1926(2): 445–485. Figs. 70–73. Jul. 15, 1926 (read Feb. 23, 1926).

—Sirs., 454, 459.

Clarke, J.T.: SEE Leatherwood et al., 1984.

Clarke, Robert

1843. *Sierra Leone. A description of the manners and customs of the liberated Africans; with observations upon the natural history of the colony, and a notice of the native tribes, &c. &c.*

London, J. Ridgway, iv + 178.

—Sirs., 128.

Clarke, S.F.

1891. The habits and embryologie of the alligator.

Jour. Morph., 5(2): 181–214.

—Mentions manatees in the St. Lucie River, Florida.

x Claudius, M.

1867. Das Gehörorgan von *Rhytina stelleri*.

Mém. Acad. Sci. St.-Petersbourg, (7)11(5): 1–14. 2 pls. Jun. 1867 (read Nov. 29, 1866).

—Discussion of hearing and ear apparatus in a variety of animals; detailed description of the bones of the ear region in *Rhytina* and comparison with those of *Manatus*, *Halicore*, and *Halitherium* (6–14). The plates show the ear bones of *Rhytina*.

Claudius, M.

1868. Über Schallzuleitung zum Labyrinth. Aus einer Abhandlung über *Rhytina stelleri*.

Monatsschr. Ohrenheilk., 2: 111.

Clauson, Barbara L.: SEE Timm et al., 1986, 1989.

Clavigero, Francesco Saverio

1780. *Storia antica del Messico cavata da' migliori storici Spagnuoli, e da' manoscritti, e dalle pitture antiche degl' Indiani: divisi in dieci libri, e corredata di carte geografiche, e di varie figure: e dissertazioni sulla terra, sugli animali, e sugli abitatori del Messico*.

Cesena, Gregorio Biasni (4 vols.), Vol. 1: viii + 302. Pls., map.

—Allen 355. Manatee, 1: 100–101. Engl. transl. by Charles Cullen, London, G.G.J. & J. Robinson (2 vols.), 1787 (manatee, 1: 62–63; Allen 397). Other eds.: London, 1807 (same pagination); Philadelphia, 1817 (manatee, 1: 83); etc.

Clay, Deborah: SEE Rathbun et al., 1982.

Cleland, John

1863. On the relations of the vomer, ethmoid, and intermaxillary bones.

Philos. Trans. Roy. Soc. London, 152: 289–321. Pls. 4–5.

—Sirs., 302.

Cligny, Adolphe

1900. *Faune du Sénégal et de la Casamance*.

Clusius, Carolus (= L'Écluse, Charles de)

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[Leiden], Officina Plantiniana Raphelengii, 1–378. Illus.

—Allen 39. Also an earlier ed., 1601 or before?

Manatee, 132–135, with fig. based on a stuffed specimen brought to Amsterdam in 1600 by a Dutch navigator “ex Occidentali Oceano.” According to Allen, this description and figure were “the first based on an original examination of specimens.” For the possible whereabouts of the original drawing, see Whitehead (1977: 176).

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–Abstr.: *Amer. Naturalist*, 17: 309, March 1883. Description of the Miocene *Dioplotherium manigaulti*, n.gen.n.sp., and of a pelvis fragment cf. *Halitherium*, both from South Carolina. On p. 52 Cope inadvertently introduces the new combination *Halitherium minor* as a synonym of *H. serresii*, and mistakenly attributes it to Cuvier. He may have latinized a vernacular expression of Cuvier, or had in mind the name *Hippopotamus minor* Desmarest, which refers to a fossil hippopotamid and not a sirenian.

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- Couto de Magalhães, Agenor
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 1958. *Hiléia amazônica: aspectos da flora, fauna, arqueologia e etnografia indígenas*. Ed. 3. Rio de Janeiro, Livr. José Olympio Editora, xvi + 447. 48 pls.
 -Manatees, 96, 111, 112, 126, 189, 419. 1944 ed.: São Paulo & Rio de Janeiro, Cia. Editora Nacional: xxiv + 267. 48 pls. Manatees, 70, 84, 85, 98, 143-144.
- Crusafont-Pairó, M.
 1959. La segunda fase transgresiva en el Vindoboniense del Vallès-Penedès. *Not. y Com. Inst. Geol. Minero Españ.*, No. 55: 3-16.
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- x Crusafont-Pairó, M.
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 -Lists occurrences of *Halianassa cuvieri*, *Halianassa* sp., *Halitherium schinzi*, and *Halitherium* sp. in Spain and Mallorca, with bibliography (96-98). Mentions (ii) a sir. bibliography ?compiled by Luis Via at the Conciliar Seminary in Barcelona.
- Crusafont-Pairó, M.; & Golpe Posse, J.M.
 1975. Datos paleontológicos sobre una formación costera del Terciario Catalán (Penedès). *Impresión y Ciencia*, 8/9: 15-24.
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- x Crusz, Hilary
 1951. A new amphistome fluke, *Indosolenorchis hirudinaceus* gen. et sp. nov., from the caecum of a dugong from the Indian Ocean. *Ceylon Jour. Sci.*, (B)24(3): 135-141. Pls. 17-20. Jul. 15, 1951.
 -Describes *Indosolenorchis* from Ceylon, compares it with *Solenorchis Hilmy* from the Red Sea, and refers both to the Solenorchiniinae [sic].
- x Crusz, Hilary
 1960. Dugongs—a zoological romance. *Loris*, 8(5): 300-302. 1 fig. Jun. 1960.
 -Pop. acc. of Ceylon dugongs and the mermaid legend, including vernacular names, economic uses, etc., of the former.
- x Crusz, Hilary; & Fernand, V.S.V.
 1954. The trematode parasites of the dugong with

- descriptions of two new monostomes and histopathological changes in the host.
Jour. Parasitol., 40(1): 499–507. 2 pls.
 –Descriptions of *Lankatrema mannarensis*, n.gen.n.sp., and *Taprobanella bicaudata*, n.gen.n.sp., from Ceylon dugongs, and a synopsis of known dugong trematodes.
- Cruz, Adolfo Gustavo; & Delgado, Rolando
 1986. Distribution of the macrophytes of Lake Yojoa, Honduras.
Rev. Biol. Trop., 34(1): 141–150.
 –In Spanish; Engl. summ. Introduction of manatees into the lake for weed control not recommended.
- Cruz, Gustavo: SEE Rathbun et al., 1983.
- x Cumbaa, Stephen L.
 1980. Aboriginal use of marine mammals in the southeastern United States.
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 –Notes the occurrence of manatees at several archeological sites in Florida and discusses probable hunting techniques (in particular, killing manatees at river shallows), but concludes that manatees were too scarce to be of much dietary significance to the Indians.
- x Cundall, Frank
 1928. *Jamaica in 1928*.
 London, West India Committee, for Inst. of Jamaica: 1–224.
 –Brief account of manatees in Jamaica (139, 143), including their capture in fishing nets and their frequent resort to Old Harbour to feed.
- Cunha Vieira, Carlos O. da: SEE Vieira, Carlos O. da Cunha.
- Cuní y Valera, Luis Augusto
 1910. *Contribución al estudio de mamíferos acuáticos observados en las costas de Cuba*.
 Habana, Impr. Avisador Comercial, 1–43. 3 pls.
- x Cuní y Valera, Luis Augusto
 1918. Contribucion al estudio de mamíferos acuáticos observados en las costas de Cuba.
Mem. Soc. Cubana Hist. Nat. “Felipe Poey,” 3(2/3): 83–123.
 –Gen. acc. of *Manatus americanus* (85–95), consisting largely of quotes from Oviedo (89–93), with almost no new data from Cuba. Mentions a resolution prohibiting manatee hunting, promulgated in January 1901 at the instigation of President Theodore Roosevelt.
- x Cunningham, R.C.
 1871. [Letter] concerning a specimen of the manatee (*Manatus americanus*) kept alive in captivity.
Proc. Zool. Soc. London, 1870(3): 798. Apr. 1871 (read Dec. 6, 1870).
 –Observations on a young manatee from the Amazon, seen in Rio de Janeiro in 1867 and 1869.
- x Curry-Lindahl, Kai
 1969. The new African Conservation Convention.
Oryx, 10(2): 116–126. Sep. 1969.
 –Lists *D. dugon* and *T. senegalensis* in Class A (totally protected species) of the Annexe to the African Convention for the Conservation of Nature and Natural Resources, signed in Sep. 1968 (122).
- x Cuthbert, Richard
 1993. Tales from the bush: Project Mermaid.
BBC Wildlife, 11(11): 82. 2 figs. Nov. 1993.
 –Pop. acc. of an expedition to study manatees and other fauna in Venezuela.
- Cuvier, Frédéric: SEE ALSO Brongniart & Cuvier, 1834.
- Cuvier, Frédéric
 1816–1829. *Dictionnaire des sciences naturelles. Planches. 2e partie: Règne organisé. Zoologie. Mammifères*.
 Paris & Strasbourg, F.G. Levrault, 1–13. 100 pls.
 –Allen 551. Manatee, pl. 96; dugong, pl. 97.
- Cuvier, Frédéric
 1822. Lamantin. In: *Dictionnaire des sciences naturelles*.
 Vol. 25: 169–173.
 –Allen 610.
- Cuvier, Frédéric
 1825. *Des dents des mammifères, considérées comme caractères zoologiques*.
 Strasbourg & Paris, F.G. Levrault: lv + 258. 110 pls.
 –Allen 654. Sirs., 236–239, pls. 96–97.
- Cuvier, Frédéric
 1829. Zoologie = mammalogie. In: *Dictionnaire des sciences naturelles*.
 Vol. 59: 357–519.
 –Allen 720. Sirs., 514ff.
- Cuvier, Frédéric
 1835–1836. Cetacea. In: Robert B. Todd (ed.), *Todd's cyclopaedia of anatomy and physiology*.
 Vol. 1: 562–594. Figs. 246–279.
 –Allen 875.
- Cuvier, Frédéric
 1836. *De l'histoire naturelle des cétacés, ou recueil et examen des faits dont se compose l'histoire naturelle de ces animaux*.
 Paris, Libraire Encyclopédique de Roret, lii + 416. 22 pls.
 –Allen 887. Published Dec. 1835, *fide* Sherborn. Sirs., 1–71, 375–377, pls. 4–6. Includes a translation of G.W. Steller's (1751) memoir on

Rytina, 41–71, 376(?), pl. 7.

Cuvier, Georges: SEE ALSO Buffon & Cuvier, 1826; Griffith et al., 1827–1832; Guérin-Ménéville, F.E., 1829–1844.

Cuvier, Georges

1798? *Tableau élémentaire de l'histoire naturelle des animaux.*

Paris, Baudouin, xvi + 710. 14 pls. Read Dec. 26, 1797; publ. An 6 [= 1797/1798?].

–Allen 452. No. 772 in J.C. Smith, *Georges Cuvier: An annotated bibliography of his published works*, Smithsonian Inst. Press, 1993; see Smith 773–776 for Danish, German, Portuguese, and Spanish transl. *Sirs.*, 172–173.

Cuvier, Georges

1800–1805. *Leçons d'anatomie comparée... Recueillies et publiées sous ses yeux, par C. Duméril...*

Paris, Baudouin (5 vols., 1800–1805), Vol. 1: xxxi + 521. 7 tabs. Vol. 2: xvi + 697.

–J.C. Smith 710, 712; vols. 3–5 also issued by Genets in 1805 (Smith 711). Eng. & German transl., Smith 715–722. Ed. 2, Paris, Crochard & Cie., 1835–1846 (Smith 713); ed. 3, Bruxelles, H. Dumont, 1836–1840 (Smith 714).

x Cuvier, Georges

1809. Sur l'ostéologie du lamantin, sur la place que le lamantin et le dugong doivent occuper dans la méthode naturelle, et sur les os fossiles de lamantins et de phoques.

Ann. Mus. Hist. Nat. (Paris), 13: 273–312. Pl. 19. –Allen 496; J.C. Smith 256. *Abstr.: Nouv. Bull. Sci. Soc. Philom.* (Paris) (2)1, No. 24: 395–396, Sep. 1809 (Allen 497, Smith 265). Repr.: Cuvier (1812); also publ. as separate (no publisher or date given; 40 pp., 1 pl. fide Smith).

Allen's annotation is apt: "This celebrated memoir marks an epoch in the literary history of the Sirenia. After giving a detailed history [273–282] of the views respecting the affinities of these animals entertained by previous writers, including the absurdities of mermaids and mermen, the author closes his historical résumé by stating that the *Sirenia* form three distinct genera, the Lamantins (of which he recognizes two species), the Dugong, and Steller's Sea-Cow, and that these three genera constitute a separate family, very different from the Seals, with which they had been previously placed, and a little nearer to the *Cetacea* than the *Pachyderms* are to the *Carnivores*. Buffon's four species of Lamantin he reduces to two. Then follows an account, with figures, of the osteology of the Brazilian Manatee [282–293]; a comparison of the skulls of the African and American Manatees [293–296], and a

résumé of the distinctive structural features of Steller's Sea-Cow [296–299], whereby it is generically separated from the Dugong [300–302] and Manatees. Cuvier's results agree closely with the modern interpretation of the affinities and generic relations of these animals. It was left, however, for Desmarest to bestow technical names upon the species here first clearly distinguished, Cuvier throughout his memoir employing only the French vernacular names."

Allen, of course, erred in attributing priority to Desmarest's names. Cuvier's work also examines the existing records of fossil sirs., almost exclusively from France (303–309), and describes as "phoques" two fragments of humeri that were later recognized by de Christol (1840) as pertaining to *Metaxytherium* (309–311). The description of the "lamantin d'Amérique" (282–293; pl. 19, figs. 1–3, 8–10, 14–18) is based on a specimen that is said on p. 283 to have been sent from Cayenne; but it is apparently the same as that said on p. 281 to have come from Brazil. In any case, it was correctly recognized by Natterer (in Diesing, 1839), Stannius (1845), and later writers as an Amazonian manatee. This is therefore the earliest description of the osteology of *T. inunguis*. Finally it may be noted that the historical summary at the start of this work is a very interesting précis of the history of sirenology from Oviedo (1535) up to Cuvier's time.

Cuvier, Georges

1812. *Recherches sur les ossemens fossiles de quadrupèdes, ou l'on rétablit les caractères de plusieurs espèces d'animaux que les révolutions du globe paroissent avoir détruites.*

Paris, Deterville (4 vols.).

–J.C. Smith 740; later eds., Smith 741–744; Eng. transl., Smith 745–746. *Sirs.*, vol. 4 (pt. 4, art. 9): 1–40, 1 pl. (repr. of Cuvier, 1809).

Cuvier, Georges

1817. *Le règne animal distribué d'après son organisation, pour servir de base à l'histoire naturelle des animaux et d'introduction à l'anatomie comparée... Tome I, contenant l'introduction, les mammifères et les oiseaux.*

[Paris,] Deterville (4 vols.): Vol. 1: xxxvii + 540.

–Allen 552; J.C. Smith 747. Receipt of this publication was announced at the Dec. 2, 1816 meeting of the Académie des Sciences, fide Smith. *Sirs.*, 273–275. Later eds.: Paris, 1829 (Allen 721, Smith 748; same as ed. 1 except for a few words added to the account of the dugong); New York, 1831 (Allen 759, Smith 753; scholarly transl. of 1829 French ed.); Paris, 1836 (Allen

889, Smith 750; the "disciples edition"; text unchanged from 1829); for other eds. & for Engl., German, Hungarian, Italian, Polish, and Welsh transls., see Smith 749, 751–752, 754–771, 777, 779, 802.

Cuvier, Georges

1821–1824. *Recherches sur les ossements fossiles, où l'on rétablit les caractères de plusieurs animaux dont les révolutions du globe détruit les espèces.... Nouvelle édition* [= ed. 2], *entièrement refondue, et considérablement augmentée....*

Paris & Amsterdam, G. Dufour & Ed. d'Ocagne, 5 vols. in 7.

–Allen 622, J.C. Smith 742. *Sirs.*, 1: 332–334, pl. 7 (1821); 5(1): 235–271, pls. 19–20 (1823); 5(2): 527, 534 (1824). Later eds.: Paris, 1825 (Allen 655, Smith 743; "Troisième édition," apparently a reissue of the 1821–1824 ed. with a new title-page); Paris, 1834–1836 (Allen 888, Smith 744; "Quatrième édition," 10 vols. + 2–vol. atlas; *sirs.* in Vol. 8, Part 2, 1836). Engl. transls.: Smith 745–746.

Cyrus, J.-L.: SEE Duguy & Cyrus, 1976.

Czelusniak, John: SEE ALSO Kleinschmidt et al., 1986; Shoshani et al., 1978.

Czelusniak, John; Goodman, Morris; Koop, B.F.; Tagle, D. A.; Shoshani, Jeheskel; Braunitzer, Gerhard; Kleinschmidt, Traute; De Jong, W.W.; & Matsuda, G.

1990. Perspectives from amino acid and nucleotide sequences on cladistic relationships among higher taxa of Eutheria. In: H.H. Genoways (ed.), *Current mammalogy*, Vol. 2.

New York, Plenum Press (577 pp.), 545–572. 1 tab. 7 figs.

x Czyżewska, Teresa; & Radwański, Andrzej

1991. Middle Miocene (Badenian) delphinid and phocoenid remains from the Fore-Carpathian Depression in southern Poland.

Acta Geol. Polonica, 41(3–4): 183–191. 1 fig. 2 pls.

–Polish summ. Mentions "*Thalattosiren* (= *Metaxytherium*)" from the Pińczów Limestones on the southern slope of the Holy Cross Mountains, Poland.

D

x Dahl, Knut

1926. *In savage Australia: an account of a hunting and collecting expedition to Arnhem Land and Dampier Land*.
London, Philip Allan, xii + 326. Illus.
–Later ed.: Boston, Houghton Mifflin, 1927.
States that dugongs “were by no means infrequent” in Roebuck Bay (266).

Dailey, Murray D.; & Brownell, Robert L., Jr.

1972. A checklist of marine mammal parasites. In: S.H. Ridgway (ed.), *Mammals of the sea: biology and medicine*.
Springfield (Illinois), Charles C Thomas (812 pp.), 528–589.
–Sir. parasites, 561–562.

x Dailey, Murray D.; Vogelbein, Wolfgang; & Forrester, Donald J.

1988. *Moniligerum blairi* n. g., n. sp. and *Nudacotyle undicola* n. sp. (Trematoda: Digenea) from the West Indian manatee, *Trichechus manatus* L.
Syst. Parasitol., 11(2): 159–163. 5 figs.
–The new taxa are described from a single manatee killed by a boat in Hobe Sound, Martin County, Florida.

Dal Piaz, Giambattista

1937. I mammiferi dell’oligocene veneto. No. 5. *Haliitherium* sp.
Mem. Ist. Geol. Univ. Padova, 11(5): 1–5.

Dal Piaz, Giorgio

1922. L’Istituto Geologico dell’Università di Padova nel 1922. Notizie sommarie.
Mem. Ist. Geol. Univ. Padova, 6(2): 1–15. 8 figs.
–Skull of *Haliitherium*, 12–13.

Dall, William Healey

1891. Notes on an original manuscript chart of Bering’s expedition of 1725–1730, and on an original manuscript chart of his second expedition; together with a summary of a journal of the first expedition, kept by Peter Chaplin, and now first rendered into English from Bergh’s Russian version.
Rept. U.S. Coast & Geodetic Survey, 1890: 759–774. Pls. 69–70.
–For discussion of the chart of the second expedition and its picture of Steller’s sea cow, see L. Stejneger (1936: 516ff.).

Dalquest, Walter W.: SEE Hall & Dalquest, 1963.

D’Alton, Eduard: SEE Pander & D’Alton, 1826.

Dammermann, Karel Willem

1929. Resultats zoologiques de l’expedition scientifique neerlandaise à l’île de Buru en 1921 et 1922. In: *Boeroe-Expeditie . . .*
Buitenzorg, Archipel Drukkerij.
–Dugong, 19–20.

Dampier, Cindy: SEE Chu & Dampier, 1990.

Dampier, William: SEE ALSO Stanbury, P.J., 1978.

Dampier, William

- 1703–1705. *A new voyage round the world. Describing particularly, the Isthmus of America, several coasts and islands in the West Indies, the Isles of Cape Verde, the passage by Terra del Fuego, the South Sea coasts of Chili, Peru, and Mexico; the isle of Guam one of the Ladrones, Mindanao, and other Philippine and East India islands near Cambodia, China, Formosa, Luconia, Celebes, &c. New Holland, Sumatra, Nicobar Isles; the Cape of Good Hope, and Santa Hellena. Their soil, rivers, harbours, plants, fruits, animals, and inhabitants. Their customs, religion, government, trade, &c. Vol. I.* [Ed. 5, corrected, 1703.]

Voyages and descriptions Vol. II. In three parts, viz. 1. A supplement of the Voyage round the World, describing the countries of Tonquin, Achin, Malacca, &c. their products, inhabitants, manners, trade, policy, &c. 2. Two voyages to Campeachy; with a description of the coasts, products, inhabitants, logwood-cutting, trade, &c. of Jucatan, Campeachy, New Spaine, &c. 3. A discourse of trade-winds, breezes, storms, seasons of the year, tides and currents of the torrid zone throughout the world: with an account of Natal in Africk, its products, Negro’s, &c. . . . To which is added, a general index to both volumes. [Ed. 3, 1705.]

A voyage to New Holland, &c. in the year, 1699. Wherein are described the Canary Islands, the Isles of Mayo and St. Jago. The Bay of All Saints, with the forts and town of Bahia in Brazil. Cape Salvadore. The winds on the Brazilian coast. Abrolho-Shoals. A table of all the variations observ’d in this voyage. Occurrences near the Cape of Good Hope. The course to New Holland. Shark’s Bay. The isles and coast, &c. of New Holland. Their inhabitants, manners, customs, trade, &c. Their harbours, soil, beasts, birds, fish, &c. Trees, planis, fruits, &c. Illus-

trated with several maps and draughts; also divers birds, fishes, and plants, not found in this part of the world, curiously ingraven on copper-plates. Vol. III. [Ed. 1, 1703.]

London, James Knapton (3 vols.), Vol. 1: vi + 550. Several figs. 5 maps. Vol. 2: [4] + 184 + 132 + 112 + [36]. 4 maps. Vol. 3: [12] + 162 + [5]. 14 pls.

–Allen 151. Various later eds. Manatee material repr. in J.A. Murray (ed.), *The islands and the sea* ..., Oxford Univ. Press: 105–109, 1991. Allen explains his citation (repeated here) as follows: “In the set I have here collated, vols. ii and iii are bound together. Vol. i belongs to the ‘fifth edition,’ vol. ii to the ‘third,’ and vol. iii to the first.... I have references to a 1702 ed. which correspond exactly with the 1703 ed. here collated.

“As is well known, Dampier was an acute natural-history observer as well as a bold navigator and adventurer, and his observations on the Beasts, Birds, and Fishes he met with during his long voyages are among the best and most trustworthy of his time. His work is of importance in the present connection for his very full account of the Manatee, which he met with at numerous and widely distant points....

“Manatee, or Sea-cow, vol. i, pp. 33–37—description of the animal, its habits, distribution, products, and the manner of its capture by the natives of Blewfield (or Bluefield) River [Nicaragua]; p. 41, in Darien River [Panama]; p. 321, its occurrence at Mindenao, in the East Indies; p. 381, do.; pp. 463, 469, its occurrence in New Holland [= Australia]; p. 547, the Manatee of Santa Hellena a Sea-Lyon [i.e., a Seal]. Vol. 2, pt. ii, pp. 73, 109, 128, in Campeachy, and near Vera Cruz [Mexico]....

“Dampier’s references to the ‘Manatee, or Sea-cow,’ as occurring in the East Indies and New Holland, relate, of course, to the Dugong. His statement that the Manatees of the West Indies are smaller than those of the American Isthmus and Guiana was seized upon by Buffon as indicating a diversity of species.”

x Dana, James Dwight

1864. On the classification of animals based on the principle of cephalization. III. Classification of herbivores.

Amer. Jour. Sci., (2)37(110): 157–183. Mar. 1864.

–Discusses various characteristics of the Sirenia and concludes they are separate from cetaceans

(160–161, 163, 168–169, 175, 183).

Dana, James Dwight

1874. *Manual of geology, treating of the principles of the science with special reference to American geological history.*

New York, Ivison, Blakeman, Taylor & Co., xvi + 828. Illus.

–Ed. 1, 1863; several later eds. Discussion of *Deinotherium*.

x Dandouau, André

1922. Ody et fanafody (charmes et remèdes). Pharmacopée Sakalave et Tsimihety.

Rev. d’Ethnogr. et des Trad. Pops. (Paris, Larose), 3(10): 111–128.

–Describes (119) Madagascar natives’ use of the fat of a “cochon de mer” as a cure for deafness, and opines that the animal is a *Physeter* or sperm whale. Petit (1923: 83) thinks it more probably a dugong.

x Dandouau, André

1924. Une tournée dans l’île de Nossi-Bé (1917).

Bull. Économique de Madagascar, 1924(1/2): 139–155. 2 maps.

–Account of dugong (“lamantin”) hunting practices and rituals (151–153).

Daniel, João

1820. *Quinta parte do thesouro descoberto no Rio Maximo Amazonas....*

Rio de Janeiro, Impr. Regia, 1–152.

–Urges restriction of manatee exploitation to avoid the animal’s extinction (150–151).

Dapper, Olfert: SEE Montanus, A., 1673.

Darling, Kathy

1991. *Manatee: on location.*

New York, Lothrop, Lee & Shepard Books, 1–48. Illus.

–Children’s book.

Darlu, P.: SEE Barriol et al., 1993.

Dart, Raymond A.

1923. The brain of the Zeuglodontidae (Cetacea).

Proc. Zool. Soc. London, 1923(3): 615–648, 652–654. 21 figs. Sep. 3, 1923.

–Sirs., 637.

x Dartevelle, E.

1935. Les premiers restes de mammifères du Tertiaire du Congo: la faune Miocène de Malembe. (Première note sur les mammifères fossiles du Congo.)

C.R. 2e Congr. Natl. Sci. Belgique (Bruxelles), 715–720.

–Report of sir. rib fragments (“*Halitherium* sp.?”) (717–718).

Darwin, Charles Robert

1854. *A monograph on the sub-class Cirripedia, with figures of all the species.*

- London, Ray Society (2 vols., 1851–1854). 42 pls.
–Discusses *Platylepas bissexlobata* from Australia, Gambia, and Honduras (428, pl. 17).
- Daubenton, Louis Jean Marie: SEE ALSO Buffon & Daubenton, 1765.
- Daubenton, Louis Jean Marie
18??. *Oeuvres complètes de Buffon, avec les descriptions anatomiques de Daubenton... Mammifères*. Paris, Verdière & Ladrangé (40 vols., 1824–1831, + 8-vol. atlas).
- Daudin, F.M.: SEE Lacépède & Daudin, 1802.
- Davidenkov, S.
1947. Types of nervous system in man, their heredity and evolution.
Jour. Mental Sci., 93: 262–272.
–Sirs., 267.
- Davidson, W.V.
1974. *Historical geography of the Bay Islands, Honduras: Anglo-hispanic conflict in the western Caribbean*. Birmingham (Ala.), Southern Univ. Press, 1–199.
–Reports that manatees are absent from the Bay Islands today.
- Davis, Randall W.: SEE St. Aubin & Lounsbury, 1990.
- n Davis, Stephen
1985. Aboriginal knowledge and use of the coast and sea in northern Arnhem Land. In: K.N. Bardsley, J.D. S. Davie, & C.D. Woodroffe (eds.), *Coasts and tidal wetlands of the Australian monsoon region: a collection of papers presented at a conference held in Darwin, 4–11 Nov. 1984*. Darwin, Austral. Natl. Univ. North Austral. Res. Unit (Mangrove Monogr. No. 1) (1–375), 297–312. 4 figs.
–Sir. material (307) identical to that in Davis (1988).
- Davis, Stephen
1988. Aboriginal tenure of the sea in northern Arnhem Land. In: F. Gray & L. Zann (eds.), *Traditional knowledge of the marine environment in northern Australia*. Proceedings of a workshop held in Townsville, Australia, 29 and 30 July 1985. *Great Barrier Reef Marine Park Authority Workshop Ser.*, No. 8: 68–98. 3 figs.
–Hunting of sleeping dugongs, 79 (material identical to that in Davis, 1985).
- x Dawson, George M.
1894. The extinct northern sea-cow, and early Russian explorations in the North Pacific.
Ottawa Naturalist, 7: 151–161.
–History of the discovery and destruction of Steller's sea cow (154–160).
- x Daxner-Höck, Gudrun
1971. Vertebrata (excl. Pisces) der Eggenburger Schichtengruppe. In: F. Steininger & J. Seněš (eds.), *Chronostratigraphie und Neostratotypen: Miozän der zentralen Paratethys. Bd. II, M₁ Eggenburgien: Die Eggenburger Schichtengruppe und ihr Stratotypus*. Bratislava, Vydavateľ'stvo Slovenskej Akadémie Vied, 761–777. 4 pls.
–Describes material of *Metaxytherium krahuletzii* from the vicinity of Eggenburg, Austria (761, 764–765, pls. 3–4).
- x Dayton, Paul K.
1975. Experimental studies of algal canopy interactions in a sea otter-dominated kelp community at Amchitka Island, Alaska.
Fish. Bull., 73(2): 230–237. 2 tabs. 2 figs. Apr. 1975.
–Rev.: R.M. May, *Nature* (London) 260(5549): 284, Mar. 25, 1976. Notes that *Hydrodamalis gigas* was formerly a major kelp consumer, and suggests that sea otters helped maintain sea cow populations by suppressing invertebrate herbivores (236–237).
- De Beer, Gavin R.
1937. *The development of the vertebrate skull*. Oxford, Clarendon Press, xxiv + 552. 143 pls.
–Sirs., 346–348.
- De Giuli, Claudio: SEE Azzaroli et al., 1982.
- De Jong, C.
1961. De zeehoevangst in Guyana in vroeger eeuwen. [Manatee hunts in Guiana in past centuries.] *De Surinamse Landbouw*, 9(3): 93–100. 1 fig.
–Engl. summ.
- De Jong, C.
1962. Amsterdamse rederij op de zeehoevangst in Guyana.
Ons Amsterdam, 14: 150–154. 2 figs.
–Text identical to De Jong (1961).
- De Jong, C.
1971. Aantekingen over Jan Reeps in Suriname, 1693. *Nieuwe West-Indische Gids*, 48(2–3): 201–205.
–Discusses the export of manatee meat from the Guianas to the West Indies.
- De Jong, W.W.: SEE ALSO Czelusniak et al., 1990.
- De Jong, W.W.
1980. Use of eye lens α -crystallin sequences in mammalian phylogeny. [Abstr.] *Second Internatl. Congr. Syst. & Evol. Biol.* (Vancouver, Univ. Brit. Columbia): 119.
- x De Jong, W.W.; & Goodman, Morris
1982. Mammalian phylogeny studied by sequence analysis of the eye lens protein α -crystallin. *Zs. Säugetierk.*, 47(5): 257–276. 2 tabs. 5 figs.

- Oct. 1982.
 –Sequences of α -crystallin A indicate that paenungulates (Proboscidea, Hyracoidea, and Sirenia) are monophyletic and include the Tubulidentata, and are, together with the edentates, the oldest eutherian offshoots. The sir. data are based on 6 eye lenses of *T. inunguis*.
- x De Jong, W.W.; & Zweers, A.
 1980. Confirmação da relação entre peixes-bois, “hyraxes” e elefantes, por meio do estudo da proteína das lentes dos olhos.
Acta Amazonica, 10(4): 897–902. 1 tab. 2 figs.
 Dec. 1980.
 –Engl. summ. Amino acid sequence analysis of α A eye-lens crystallin confirms the monophyletic origin of the Sirenia, Hyracoidea, and Proboscidea and suggests that the former two are closest to each other; the Paenungulata are the oldest placental offshoot after the Edentata.
- De Jong, W.W.; Zweers, A.; & Goodman, Morris
 1981. Relationship of aardvark to elephants, hyraxes and sea cows from α -crystallin sequences.
Nature (London), 292(5823): 538–540. 1 tab. 2 figs. Aug. 6, 1981.
- x De Pourtales, L.F.
 1877. Hints on the origin of the flora and fauna of the Florida Keys.
Amer. Naturalist, 11: 137–144. Mar. 1877.
 –Concludes that the occurrence of manatees in both Florida and the West Indies, and of manatee bone fragments in dredge samples off the Florida coast, indicates former migrations between Cuba and Florida (144).
- De Silva, G.S.
 1969. The fauna conservation ordinance of Sabah.
Loris, 11(5): 283–286.
 –The law took effect in July 1964, protecting dugongs and other wildlife.
- x De Silva, J.A.
 1959. A plea for the protection of the dugong.
Loris, 8: 173–174. 1 fig. Jun. 1959.
 –Pop. acc. of dugongs and dugong hunting in the Indian Ocean; recommends “complete prohibition on the killing of the dugong” in Ceylon.
- x De Vis, Charles W.
 1884. On a fossil calvaria.
Proc. Linn. Soc. New South Wales, 8(3): 392–395. Pl. 17. Read Aug. 29, 1883.
 –Description of the supposed fossil sirenian *Chronozoon Australe*, n.gen.n.sp., based on a skull fragment from the Chinchilla (Darling Downs) drift deposits, southeastern Queensland. This specimen is now considered to represent a diprotodont marsupial, possibly the giant wombat *Phascolonus gigas* (see T. Edinger, 1975: 44), although it may represent a juvenile individual of some other diprotodontid.
- x De Vis, Charles W.
 1905. Fossil vertebrates from New Guinea.
Ann. Queensland Mus., No. 6: 26–31. Pls. 10–13.
 –Describes *Halicore brevirostris*, n.sp., based on the rostral portion of a skull from alluvial deposits of unknown [but possibly subrecent] age on Murua or Woodlark Is., Papua New Guinea (27–30, pl. 10).
- De Vries, T.J.: SEE Muizon & De Vries, 1985.
 De Winton, W.E.: SEE Anderson and De Winton, 1902.
- Debenham, F.
 1941. Bering’s last voyage.
Polar Rec. (Cambridge), 3(22): 421–426. 1 pl.
 –Reproduces the sea cow picture from Waxell’s chart.
- Decari, R.
 1950. *La faune malgache*. Paris, Payot.
- D Dechaseaux, Colette
 1958. Sirenia [and] Desmostylia. In: J. Piveteau (ed.), *Traité de paléontologie. Tome VI en deux volumes. L’origine des mammifères et les aspects fondamentaux de leur évolution. Mammifères. Évolution. Deuxième volume*. Paris, Masson et Cie. (1962 pp.), 333–367. 41 figs.
 –Sirenia, 333–361, 35 figs.; “Encéphales de Siréniens fossiles,” 361–363, 1 fig.; Desmostylia, 364–367, 5 figs.
- Defretin, R.: SEE Duguay & Defretin, 1979.
- DeKay, James Ellsworth
 1842. Zoology of New-York, or the New-York fauna; comprising detailed descriptions of all the animals hitherto observed within the state of New-York, with brief notices of those occasionally found near its borders, and accompanied by appropriate illustrations.... Part I. Mammalia. In: *Natural History of New York*. Albany, printed by W. & A. White & J. Visscher (entire work: 6 parts in 5 vols., 1842–1844), Vol. 1: xv + 146. 33 pls.
 –Sirs., 122–123, pl. 30.
- x Dekeyser, P.L.
 1952. Note sommaire sur la température rectale du lamantin (*Trichechus senegalensis* Link).
Bull. Mus. Natl. Hist. Nat. (Paris), (2)24(3): 243–246. May 1952.
 –During periods out of water, the rectal temperature of a 1.5 m male manatee from Senegal varied between 25 and 28.5 degrees C, correlated only weakly with ambient air and water temperatures.
- x Dekeyser, P.L.
 1955. Note sommaire sur la denture d’un jeune lamantin

(*Trichechus senegalensis*).

Bull. Inst. Franç. Afr. Noire, 17A(3): 921–925. 1 fig.

–Discussion of the dental formula and tooth succession in a 1.5 m manatee calf from Senegal, probably the same one studied in Dekeyser (1952). Illustrates the dentition prior to any tooth loss, and concludes that the antermost lower tooth belongs to the permanent rather than the deciduous series.

Dekeyser, P.L.

1956. Les mammifères de l'Afrique Noire Française.

Initiations Africaines (Inst. Franç. Afr. Noire), 1: 1–426.

–Publ. 1955? Ed. 2? Sirs., 309–311.

Dekker, Dick

1967a. Zeekoe, alias lamantijn, alias manati. [Title of parts II–IV:] Zeekoeien uit Suriname II [–IV].

Artis (Amsterdam), 12(5): 148–157, 12 figs.; 12(6): 184–191, 7 figs.; 13(1): 28–35, 8 figs.; 13(2): 58–65, 13 figs. Jan.–Feb. 1967, Mar.–Apr. 1967, May–Jun. 1967; Jul.–Aug. 1967.

–Account, in four installments, of the capture of manatees in Suriname for the Amsterdam zoo.

Dekker, Dick

1967b. Zeekoeien.

Schakels (The Hague), S64: 21–24. 4 figs.

Dekker, Dick

1971. Op zoek naar zeekoeiwijfjes. [In search of seacow females.]

Artis (Amsterdam), 17(1): 8–13; 17(2): 48–53; 17(3): 84–88. May–Jun. 1971; Jul.–Aug. 1971; Sept.–Oct. 1971.

x Dekker, Dick

1974a. Transport of manatees *Trichechus m. manatus*.

Internat. Zoo Yearbk., 14: 68–69.

–Account of the two-week transport by ship of four manatees from Suriname to Holland in Oct. 1966; two died (of cold?), two survived with bruises. Air transport is recommended for future attempts.

x Dekker, Dick

1974b. On the natural history of manatees (*Trichechus manatus manatus*) from Suriname for the Amsterdam Zoo.

Aquat. Mamms., 2(2): 1–3. Nov. 1974.

–Brief account of distribution, status, and food habits of Suriname manatees, and of the capture of 15 animals, all but one males.

Dekker, Dick

1977a. Zeekoegeboorte: een unieke gebeurtenis. [Manatee birth: a unique occurrence.]

Artis (Amsterdam), 23(4): 111–119.

Dekker, Dick

1977b. Manatee (*Trichechus manatus manatus*) born at Artis Zoo, Amsterdam.

Internat. Zoo News, 24(8): 30–31.

Dekker, Dick

1978. Die Sirene von Amsterdam.

Der Zoofreund, 27: 6–7.

x Dekker, Dick

1980. Pre- and postnatal behaviour in the manatee (*Trichechus manatus*) in captivity.

Aquat. Mamms., 8(1): 21–26. 1 tab. 3 figs. Jun. 1980.

–Describes attempts at copulation, genital swellings and mammary development in female, feeding, nursing, locomotor, respiratory, and protective behaviors, fright reactions, and growth of mother and male calf born at Amsterdam, Aug. 8, 1977.

Delaney, Judith; Hale, Wendy; & Stone, Renee

1986. *Manatees: An educator's guide to the natural history, habitat, problems, and conservation of the Order Sirenia.*

Tallahassee, Florida Dept. of Nat. Resources, [1] + 1–25. Illus. Packaged with 2 leaflets and 17" × 22" colored poster.

–Distributed free by the Florida Audubon Society and the Save the Manatee Committee. Rev.: D.P. Domning, *Sirenews*, No. 6: 10–11, Oct. 1986. The booklet contains information on sir. natural history and conservation (emphasizing Florida manatees), aquatic ecology, and marine mammals in general; sources of further information; and puzzles and activities for students in primary and secondary schools. The leaflets comprise a "manatee fact sheet" of natural history data, a list of resource and conservation agencies and organizations in Florida, and a list of printed sources and audiovisual aids. The poster illustrates the Recent sirs. with a map of their distribution. "Also available" on request is "a 23 minute video tape program, 'Silent Sirens: Manatees in Peril'...." In the second ed. (1989), the leaflets are incorporated into the booklet (29 pp.; revised by Marjorie Lamphear).

Delcourt, A.: SEE Anglada et al., 1974.

x Delfortrie, Eugène

1870. Les ossements entaillés et striés du Miocène aquitainien.

Actes Soc. Linn. Bordeaux, 27: 261–262. Pl. 14.

–Describes cetacean ribs scarred by fish teeth, noting that most bones from the Aquitanian deposits, including "maxillaires d'Halitherium," have similar scars.

Delfortrie, Eugène

1872. Étude sur les restes fossiles de siréniens du genre *Halitherium* dans le bassin de la Garonne. *Actes Soc. Linn. Bordeaux*, 28(= (3)8): 281-324. Pls. 18-22.

–Rev.: *Jour. Zool.* (Paris), 1: 343-344? Also exists as a separate in 38 pp. + 5 pls., reset with different page-breaks. By lumping a variety of Eocene and Miocene specimens under the name *Halitherium Cuvieri*, this paper contributed little but confusion.

x Delfortrie, Eugène

1880. Découverte d'un squelette entier de *Rytiodus* dans le falun aquitainien.

Actes Soc. Linn. Bordeaux, 34(= (4)4): 131-144. 1 tab. Pls. 5-8.

–Abstr.: *La Nature* (Paris), 8(2): 321-322, 1 fig.?; *Rev. Socs. Savs.* (Paris), 1879: 80-81? Describes the skull of a skeleton that was for the most part destroyed by workmen. Considers *Rytiodus* closely related to *Halitherium*.

Delgado, Rolando: SEE Cruz & Delgado, 1986.

Delsman, Hendricus Christoffel

1951. *Dierenleven in Indonesië*. s'Gravenhage [& Bandung?], W. van Hoeve, 1-348. Illus.

Deméré, Thomas A.: SEE ALSO Domning & Deméré, 1984.

Deméré, Thomas A.

1981. Fossil whales of San Diego. Part II. *Environ. Southwest*, 493: 22-25. Illus. Jun. 1981.

Demoulin, V.: SEE Bay & Demoulin, 1989.

Dempster, R.; & Shipman, W.

1969. The use of copper sulfate as a medicament for aquarium fishes and as an algacide in marine mammal water systems.

Occas. Paper California Acad. Sci., 71: 1-6.

–Discusses the use of sequestered copper to control algae in tanks at the Steinhart Aquarium, San Francisco.

x Denton, G.R.W.

1981a. The effect of diet on the heavy metal status of the dugong (*Dugong dugon* (Müller)). In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8-13 May 1979* (q.v.). [Townsville (Australia)] James Cook Univ. (vii + 400), 169-174.

–Summary of Denton et al. (1980).

x Denton, G.R.W.

1981b. Brief outline of procedures recommended for the collection and storage of dugong tissues for heavy metal, organochlorine pesticide and PCB analy-

ses. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8-13 May 1979* (q.v.).

[Townsville (Australia)] James Cook Univ. (vii + 400), 239.

–Two paragraphs on procedures for avoiding contamination of tissue samples.

x Denton, G.R.W.; & Breck, W.G.

1981. Mercury in tropical marine organisms from North Queensland.

Mar. Pollution Bull., 12(4): 116-121. 3 tabs. 2 figs. Apr. 1981.

–Reports that the mercury content of tissues of two dugongs from Cleveland Bay, Australia, was "extremely low" compared with other marine mammals.

x Denton, G.R.W.; Marsh, Helene D.; Heinsohn, George Edwin; & Burdon-Jones, C.

1980. The unusual metal status of the dugong *Dugong dugon*.

Marine Biology, 57(3): 201-219. 6 tabs. 5 figs.

–Reports very high levels of iron and zinc found in dugong livers; levels of copper, cadmium, cobalt, and silver were also high in livers, and cadmium in kidneys; manganese concentrations were comparable to those in other marine mammals; nickel, lead, and chromium were not detected in any tissue. Concentrations of several metals varied with age of the dugongs. Seagrasses were probably the source of the iron, but anthropogenic pollution was not implicated.

Denton, Gary: SEE Heinsohn et al., 1985.

Dependorf, Theodor

1898. Zur Entwicklungsgeschichte des Zahnsystems der Marsupialier. In: R.W. Semon (ed.), *Zoologische Forschungsreisen in Australien und dem Malayischen Archipel*, Vol. 3.

Denkschr. Med.-natw. Ges. Jena, 6(1): 243-402. 14 figs. Pls. 2-11.

–Sirs., 393, 397.

Dependorf, Theodor

1907. Zur Frage der sogenannten Konkreszenztheorie. *Jena. Zs. Natw.*, 42: 539-566. 19 figs.

–Sirs., 560.

x Depéret, Charles

1895. Über die Fauna von miocänen Wirbelthieren aus der ersten Mediterranstufe von Eggenburg.

Sitzb. Akad. Wiss. Wien, math.-natw. Cl., 104(1): 395-416. 2 pls.

–Describes *Metaxytherium Krahuletzki*, n.sp., on the basis of 6 isolated molars; lists other fossil sirs. and compares *M. Krahuletzki* with them. The

associated fauna included *Brachyodus onoideus*, *Testudo Noviciensis*, *Trionyx* sp., and *Crocodylus Eggenburgensis*.

Depéret, Charles

1907. *Les transformations du monde animal*.

Paris, E. Flammarion (Bibl. de Philos. Sci.), 1–360.

–Repr.: Paris, 1922. Transl.: Engl., London, Kegan Paul, Trench, Trübner & Co., Ltd., 1909; German, Stuttgart, E. Schweizerbart, 1909; Spanish, Buenos Aires, Editorial Impulso, 1945.

x Depéret, Charles

1914. Sur la reconstitution d'un squelette de *Felsinotherium Serresi*, sirénien pliocène des sables de Montpellier.

C.R. Acad. Sci. Paris, 158: 1858–1862. 1 fig.

–Discusses the anatomy of *F. Serresi*, comparing it with other fossil sirs., and concludes that a steady increase in body size took place in a phyletic series from “*Metaxytherium*” [i.e., *Halitherium*] *Christoli*, *M. Krahulezti*, and/or *Halianassa Studeri*, through *F. Serresi*, to *F. Forestii* and possibly *Rhytina. M. fossile* [= *M. medium*], however, is excluded from this lineage on account of its large size.

Depéret, Charles; & Roman, F.

1920. *Le Felsinotherium serresi* des sables pliocènes de Montpellier et les rameaux phylétiques des siréniens fossiles de l'Ancien Monde.

Arch. Mus. Hist. Nat. Lyon, 12(4): 1–56. 14 figs. 7 pls.

–Rev.: *Bol. Soc. Españ. Hist. Nat.*, 20: 341–342? This noteworthy monograph, in addition to describing in some detail the osteology of *F. serresi*, provides an extremely useful summary of the then-known sir. fossil record and a handy guide to the European literature.

Deraniyagala, Paulus Edward Pieris

1933. Cured marine products of Ceylon.

Bull. Ceylon Fish., Sect. C, 1933: 55.

–Notes that considerable quantities of dugong meat were exported in the past century.

x Deraniyagala, Paulus Edward Pieris

1948. Some scientific results of two visits to Africa.

Spolia Zeylanica, 25(2): 1–42. 4 figs. 14 pls. Dec. 30, 1948.

–Mentions “sireniens” from the Lower Oligocene of the Fayum, Egypt (15), and lists four *Eosiren* specimens from the Fayum (16) collected by the author on the University of California African Expedition led by Wendell Phillips. Most if not all of the latter specimens were deposited in the University of California Museum of Paleontology, Berkeley; the scapula was described by

Reinhart (1959: 53, 55).

Deraniyagala, Paulus Edward Pieris

1965a. A sanctuary for turtles, the dugong, whales and dolphins in the Indian and Southern oceans.

Loris, 10(4): 246–250. 3 figs. Dec. 1965.

Deraniyagala, Paulus Edward Pieris

1965b. Some aspects of the fauna of Ceylon.

Jour. Roy. Acad. Sci. Ceylon, 9(2): 201–221.

Deraniyagala, Paulus Edward Pieris

1967. Some new Miocene vertebrates from Ceylon. [Abstr.]

Proc. Ceylon Assoc. Adv. Sci., 23rd Ann. Session, Part 1: 50.

x Deraniyagala, Paulus Edward Pieris

1969a. Some aspects of the Tertiary Period in Ceylon.

Jour. Roy. Asiatic Soc. (Ceylon Branch), (2)12: 86–108. 5 figs. 3 pls. May 15, 1969.

–Very briefly describes *Miodugong brevicranium* [n.gen.n.sp.], based on a skull fragment from the Miocene Malu Member of the Jaffna Series, Ceylon (97, pl. 2). The photograph in the plate is useless. “Hypothetical reconstructions” (99) show both the dugong and a baleen whale with manatee-like tails. This appears to be the earliest of at least four publications of this and other new names in the same year, although it does not designate the names as “new,” no prior publication of them is cited.

x Deraniyagala, Paulus Edward Pieris

1969b. Some of the earliest vertebrates of Ceylon.

Loris, 11(5): 235–237. 8 figs. Jun. 1969.

–Summarizes the fauna described in 1969a. *Miodugong brevicranium* and the cetothere are again “reconstructed” with manatee-like tails.

Deraniyagala, Paulus Edward Pieris

1969c. A Miocene vertebrate faunule from the Malu member of Ceylon.

Spolia Zeylanica, 31(2): 551–570. 3 figs. 4 pls.

–“Tentatively” proposes “*Miodugong brevicranium*,” n.gen.n.sp. (554, 562–563, pl. 4). This was perhaps intended to be the definitive publication of this and the other new names of fossil vertebrates.

Deraniyagala, Paulus Edward Pieris

1969d. Some Miocene vertebrates from Ceylon.

Jour. Pal. Soc. India, 13: 20–23. Pl. 1.

–Mentions *Miodugong* (22).

DEREC: SEE Desmostylus Research Committee.

x Derscheid, J.M.

1926. Les lamantins du Congo (*Trichechus senegalensis* Desm.) avec notes sur la répartition géographique et l'extermination des siréniens.

Rev. Zool. Africaine, 14(2), *Bull. Cercle Zool. Congolais*, 3(1–2): 23–31. 1 fig.

–Discusses manatees exhibited at Antwerp, sir.

distribution in Africa (recognizing "*T. senegalensis vogellii*" in the Chad and Uele districts in contrast to "*T. s. senegalensis*" elsewhere), and hunting and protective legislation in the Congo.

x Descourtilz, Michel Étienne

1809. *Voyages d'un naturaliste, et ses observations faites sur les trois règnes de la nature, dans plusieurs ports de mer français, en Espagne, au continent de l'Amérique Septentrionale, à Saint Yago de Cuba, et à St.-Domingue, où l'auteur devenu le prisonnier de 40,000 noirs révoltés, et par suite mis en liberté par une colonne de l'armée française, donne des détails circonstanciés sur l'expédition du général Leclerc....*

Paris, Dufart, père (3 vols.), Vol. 2: 1–470. Illus.
–Account of manatees and manatee hunting (with nets, guns, and harpoons) on Santo Domingo, where the manatees can be ambushed as they come out of the rivers at noon to graze in the fields of maize and sweet potatoes (2: 274–276)! The author notes with regret that, despite having followed these instructions several times, he never succeeded in shooting one.

Desmarest, Anselme Gaëtan: SEE ALSO Harlan, R., 1824.

Desmarest, Anselme Gaëtan

1804. *Tableau méthodique des mammifères. Nouv. Dict. Hist. Nat.* (Paris, Deterville; 24 vols., 1803–1804), 24: 5–38.

Desmarest, Anselme Gaëtan

1817a. Dugong.
Nouv. Dict. Hist. Nat. (Paris, Deterville), 9: 603–604.
–Allen 553: "Résumé of its affinities as variously maintained by previous authors, with the recognition of the single species '*Trichecus dugong*, Gmel.'"

Desmarest, Anselme Gaëtan

1817b. Lamantin.
Nouv. Dict. Hist. Nat. (Paris, Deterville), 17: 258–264.
–Allen 554: "Spp. 2, *Manatus americanus* et *M. senegalensis*, Desm."

Desmarest, Anselme Gaëtan

1817c. Mammalogie.
Nouv. Dict. Hist. Nat. (Paris, Deterville) 18: 483–542.
–Allen 555. Sirs.?

Desmarest, Anselme Gaëtan

1819. Rytine, *Rytina* Illig.
Nouv. Dict. Hist. Nat. (Paris, Deterville), 29: 573–576.
–Allen 577.

Desmarest, Anselme Gaëtan

1822. *Mammalogie ou description des espèces de mammifères. Seconde partie, contenant les ordres des*

rongeurs, des édentés, des pachydermes, des ruminans et des cétacés.

Paris, Mme. Veuve Agasse, viii + 277–556 (= *Encyclopédie Méthodique*, vol. 182). 126 pls.

–Allen 611. The "Première Partie" (pp. viii + 1–276) appeared in 1820. *Hippopotamus medius* and *Hippopotamus minimus*, 388–389. Recent sirs., 506–511. Dugong and manatee, pl. 112.

Desmarest, Anselme Gaëtan

1827. Rytine; *Rytina*, Ill.
Dict. des Sci. Nat., 46: 476–477.
–Allen 694.

Desmarest, E.?

1839. Stellère, *Stellurus*.
Dict. Pittor. Hist. Nat. et des Phénom. de la Nature, 9, livr. 657: 173.
–Allen 958.

xD Desmostylus Research Committee (DEREC)

1951. [The second skeleton of *Desmostylus* in Gifu Prefecture.]

Jour. Geol. Soc. Japan, 57(672): 414. Sept. 1951.
–In Japanese. Brief account of the discovery (in October 1950), collection, and plans for the study of the Izumi desmostylian skeleton, provisionally identified here as *Desmostylus* but later recognized as *Paleoparadoxia*. This was the second desmostylian skeleton to be found, the first being the *Desmostylus* from Keton in Sakhalin.

The Desmostylus Research Committee was established on Jul. 3, 1950 to carry out a collaborative study of the Keton skeleton of *Desmostylus* and, later, the Izumi *Paleoparadoxia*. It consisted of H. Yabe (chairman), F. Takai, S. Ijiri, M. Minato, and T. Shikama, and was active from 1950 to 1953 (see also citations under the names of the committee members); "but afterwards it stopped its official activity owing to a cause not to be published" (Shikama, 1966b: 1, 10–14). The cause, apparently, was political dissension among the committee members. Ijiri was to describe the skulls, Shikama the limb bones and sterna, and Takai the remaining parts. This plan was only partly carried out in the publications of Ijiri & Kamei (1961) and Shikama (1966b); it remained for Inuzuka (1980–1982) to complete the description of the Keton skeleton.

xD Desmostylus Research Committee (DEREC)

1952. [Re-excavation of desmostylids in Toki District, Gifu Prefecture, and its stratigraphical horizon.]
Jour. Geol. Soc. Japan, 58(679): 144. Apr. 1952.
–In Japanese. Reports an unsuccessful attempt to relocate and recollect the locality of the Togari *Desmostylus* skull discovered in 1898 (see Yoshikawa & Iwasaki, 1902), and the enlargement of the excavation at the Izumi "*Desmostylus*" [=

Paleoparadoxia] locality. Ten additional bone fragments plus associated fauna and flora were collected at the latter site. The two localities are assigned to the Togari and Yamanouchi members, respectively, of the Akeyo Formation [Miocene].

Desmoulins, A.

1824. Dugong, *Trichechus Dugong*, Gmel.
Dict. Class. Hist. Nat., 5, Cra-D: 640–641. Pl. 141.
–Allen 637.

Desnoyers, Jules Pierre Stanislas

1829. Observations sur un ensemble de dépôts marins plus récents que les terrains tertiaires du bassin de la Seine, et constituant une formation géologique distincte; précédées d'un aperçu de la non simultanéité des bassins tertiaires.
Ann. Sci. Nat., 16: 171–214, 402.
–Allen 722. *Sirs.*, 446–448??

DeTample, Craig: SEE Gallagher et al., 1989.

Detre, Cs.; Dudich, E., Jr.; & Kecskemeti, T.

1971. Hungariae originalia animalia fossilia Eocaenica.
Magyar. Állami Földt. Intez., Evk., 54(1969), No. 4, Pt. 2: 161–178.

Detle, Kurt

- 1929a. *Halitherium schinzi* Kaup im norddeutschen Septarienton.
Zs. Deutsch. Geol. Ges., 81(10): 539.

Detle, Kurt

- 1929b. Seekuhrest im Septarienton von Köthen.
Serimunt (Blätter der Vereins Heimatmus. f. Köthen), 4(24).

x Devillers, Ch.

1938. Sur la biologie du lamantin en captivité.
Mammalia, 2(2): 84–88. 3 figs. Jun. 1938.
–Describes the external anatomy, measurements, locomotor behavior, and captive diet of two *T. inunguis* brought to France from Manaus, Brazil.

Dexler, Hermann

1902. Bericht über eine Reise nach Australien zum Zwecke der Erwerbung anatomischen und entwicklungsgeschichtlichen Materiales vom Dugong.
Dt. Arbeit. Prag, 1(7): 552–562. 1 pl.

Dexler, Hermann

1905. *Queensland*.
Leipzig, 1–200.
–*Sirs.*, 200.

Dexler, Hermann

- 1912a. Das Rückenmark von *Halicore dugong* Erxl.
Ver. Internatl. Zool. Kongr. (Jena), 8: 527–534.

x Dexler, Hermann

- 1912b. Das Hirn von *Halicore dugong* Erxl.
Morph. Jahrb. (Leipzig), 45(1): 97–190. 35 figs. Pls. 5–6.
–Detailed gross and microscopic description of

the brains of eight Queensland dugongs.

Dexler, Hermann; & Eger, O.

1911. Beiträge zur Anatomie des Säugerrückenmarkes. I. *Halicore dugong* Erxl.
Morph. Jahrb. (Leipzig), 43: 107–207. 27 figs. Pl. 7.

Dexler, Hermann; & Freund, Ludwig

- 1906a. Zur Biologie und Morphologie von *Halicore dugong*.
Arch. Naturgesch., 72(1): 77–106. 1 fig. 3 pls.

x Dexler, Hermann; & Freund, Ludwig

- 1906b. Contributions to the physiology and biology of the dugong.
Amer. Naturalist, 40(469): 49–72. Jan. 1906.
–Excellent treatise and literature review on dugong behavior, sense perception, locomotion, etc.

x Dexler, Hermann; & Freund, Ludwig

- 1906c. External morphology of the dugong.
Amer. Naturalist, 40(476): 567–581. 5 figs. Aug. 1906.
–Detailed anatomical description and literature review.

x Diard & Duvaucel

1820. Sur le dugong.
Jour. de Physique, Chimie et Hist. Nat., 91: 159–160. Aug. 1820 (Read to Roy. Soc. London, Jun. 15, 1820).
–Rev.: *Ann. Philos.*, 16: 55. Summary of Raffles (1820), with other remarks on the internal anatomy of the dugong. Mentions (160) the seasonal occurrence of dugongs at Singapore (mostly during the northern monsoon).

Dias Vieira, João Pedro: SEE Vieira, João Pedro Dias.

Dick, Heather

1975. Hugh Manatee.
Ranger Rick, Mar. 1975: 35–37. 4 figs.

x Dick, Thomas M.

1982. The Florida manatee.
Underwater Naturalist (Bull. Amer. Littoral Soc.), 13(4): 19–22. 4 figs. Spring 1982.
–Pop. acc. of manatee behavior and conservation problems.

Dickey, Beth

1988. For manatees, KSC is paradise found.
Spaceport News (John F. Kennedy Space Center, Florida), 27(7): 4–5. 4 figs. Mar. 25, 1988.

Dieckman, L.E.

1972. Manatees!!!
Bull. Audubon Soc. Belize, 4(7): 1.
–Short description of apparent mating in *T. manatus*.

Dierauf, Leslie A.: SEE ALSO Bossart & Dierauf, 1990.

Dierauf, Leslie A.

1990. From fish to fin to flipper: the evolution of marine mammals. In: L.A. Dierauf (ed.), *CRC handbook*

of marine mammal medicine: health, disease, rehabilitation.

Boca Raton (Florida), CRC Press, Inc. (735 pp.), 381–397. 7 figs.

–Presents a slightly garbled summary of sir. phylogeny (381–385, 391).

Other chapters in this volume listed here are by Bossart & Dierauf, Spotte, Stoskopf, White & Francis-Floyd, and Williams et al. Sirs. are also mentioned in other chapters by Dierauf (list of manatee parasites; 93), Janette Roletto & Jeff Mazzeo (identification of *T. manatus*; 448–449), Graham A.J. Worthy (energetics; m490), and Brian E. Joseph, Edward D. Asper, & James E. Antrim (transport techniques; 550).

Diesing, Carl Moritz

1838. Abbildungen neuer Gattungen brasilianischer Binnenwürmer (Entozoön). [Abstr.]

Ber. XV. Versamml. Deutsch. Naturf. u. Aerzte (Prague, Sep. 1837), 189. Read Sep. 21, 1837.

–Mentions the occurrence of the parasites *Lo-bocephalus heterolobus* and *Amphistoma fabaceum* in the stomach and intestine, respectively, of *Manatus australis*. Both names of parasites were nomina nuda.

x Diesing, Carl Moritz

1839. Neue Gattungen von Binnenwürmern nebst einem Nachtrage zur Monographie der Amphistomen. Ann. Wiener Mus. Naturgesch., 2: 219–242. Pls. 14–20. Feb. 1839.

–Describes the nematode *Heterocheilus tunicatus*, n.gen.n.sp., from the stomach and small intestine of “*Manatus exunguis* Natt.” from Brazil (229–232, pls. 15, 19). The description of the host, given in a footnote on p. 280, is an account by Natterer in which he uses the name *exunguis* instead of the later-published spelling *inunguis*. *M. exunguis* is also contrasted with *M. americanus*. (See R.V. Melville [1985] for the disposition of the name *exunguis*.) Also describes the trematode *Amphistoma fabaceum* n.gen.n.sp., likewise from the intestines of the Amazonian manatee (236, pl. 20).

x Diesing, Carl Moritz

1850–1851. *Systema helminthum... Vol. II.*

Vienna, Wilhelm Braumüller, vi + 588.

–Vol. I (1850) lists *Amphistomum fabaceum* Diesing as a parasite of “*Manatus exunguis*” (403–404). Vol. II (1851) lists “*Ascaris Rytinae* Brandt” [new name], “*Ascaris Dugonis* Brandt” [new name], and *Heterocheilus tunicatus* Diesing as sir. parasites, the latter found in “*Manatus exunguis*” (190–191, 209, 502).

Diesing, Carl Moritz

1861. Revision der Nematoden.

Sitzb. Akad. Wiss. Wien, math.-natw. Kl., 42(28): 595–736. 1 pl.

–Includes *Ascaris Halicoris*, 662.

Dietz, Tim

1992. *The call of the siren: manatees and dugongs.*

Golden (Colorado), Fulcrum Publishing, xii + 196. Illus.

–Pop. acc. of sir. and sir. research.

Dilg, Carl

1909. Beiträge zur Kenntnis der Morphologie und postembryonalen Entwicklung des Schädels bei *Manatus inunguis* Natt.

Gegenbaurs Morph. Jahrb., 39(1): 83–145. 1 fig. Pls. 8–13. Mar. 2, 1909.

–An Inaugural-Dissertation presented to the Universität Bern, Feb. 29, 1908, also published as a separate (Leipzig, Wilhelm Engelmann, 1909). The latter version includes a title-page, a dedication to Th. Studer (Dilg’s professor), and two paragraphs of acknowledgements not published in *Morph. Jahrb.*

x Dill, William A.

1961. Some notes on the use of the manatee (*Trichechus*) for the control of aquatic weeds.

U.N. Food & Agric. Organization Fisheries Biology Tech. Paper, No. 13: 1–6. Sept. 1961.

–Concludes that the present state of knowledge does not justify recommendation of the use of manatees for weed control. Quotes Allsopp (1960) in full (3–4).

x Dimock, A.W.

1907. The art of catching the manatee.

Century Mag., 73 (= n.s. 51): 848–853. 4 figs. Apr. 1907.

–Account of attempts to capture a Florida manatee for the New York Aquarium. See also C.H. Townsend (1907).

Dimock, A.W.

1908. Big game hunting at sea: hunting the manatee.

Illus. London News, (5)11: 333–334. figs.

–Account of the capture of an adult and baby *T. manatus* for the New York Aquarium.

Dimock, A.W.

1909. Capturing a manatee.

Recreation, 29: 163–168. Apr. 1909.

Dimock, A.W.; & Dimock, Julian A.

1909. *Florida enchantments.*

London, Hodder & Stoughton, 1–318.

–Revised ed. (by A.W. Dimock; photographs by J.A. Dimock): New York, Frederick A. Stokes Co., 1926.

x DiPerna, Paula

1984. Manatee management: a question of freedom.

Calypso Log (Cousteau Society), 11(3): 16–17. 3 figs. Sep. 1984.

–Pop. acc. of a proposal (by Dr. Jesse White) to restock the Florida manatee population by large-scale captive breeding.

Divin, V.A.

1957. Vtoraya Sibirsko-tikhookeanskaya ekspeditsiya i voprosy khozyaistvennogo osvoyeniya Dalnevo Vostoka. [The Second Siberia-Pacific Ocean Expedition and questions of the economic development of the Far East.] *Letopis Severa*, 2: 157–175.
–Sirs., 168–169.

Dixon, Harold L.: SEE Donovan et al., 1990.

Djunarlin: SEE Erftemeijer et al., 1993.

Dockery, David T., III

1982. Lesueur's Walnut Hills fossil shells. *Mississippi Geol.*, 2(3): 7–13. Illus.
–Publishes, for the first time, plates of Lower Oligocene fossils collected from the future site of Vicksburg, Miss., by Charles A. Lesueur in 1828. Included are possible sir. rib fragments. These plates were also reproduced by Dockery as Appendix II of *Mississippi Bur. Geol. Bull.*, 123: 5–261, 1982 (see pp. 240–241).

Dodds, W. Jean: SEE Medway, Dodds et al., 1982.

Döderlein, Ludwig: SEE Steinmann & Döderlein, 1890.

x Doig, Fiona; & Dyson, Steve

1988. Satellite tracking: a new direction for research. *Austral. Nat. Hist.*, 22(10): 437–441. 8 figs. Spring 1988.
–Pop. acc. of applications of the Argos tracking system, including studies of dugongs in Queensland (438–439). Includes 3 photos showing capture of a dugong by hoop-net (436–437).

Dollfus, Robert Ph.

1950. Trématodes récoltés au Congo Belge par le Professeur Paul Brien (mai-août 1937). *Ann. Mus. Congo Belge C (Zool.)*, (5)1(1): 1–136.
–Reports *Zygocotyle* sp. in the caecum of a *Dugong* from Djibouti (94–96).

Dollfus, Robert Ph.

1955. Parasites. In: G. Petit, *Ordre des siréniens*. In: P.-P. Grassé (ed.), *Traité de Zoologie*. Paris, Masson et Cie., 17(1), 981–983.
–Sir. parasites.

Dollman, Guy

- 1933a. Dugongs from Mafia Island and a manatee from Nigeria. *Nat. Hist. Mag. (London)*, 4(28): 117–125. 7 figs. Oct. 1933.
–Discussion of dugong teeth, natural history, and abundance in East Africa, and of distribution and hunting of *T. senegalensis* in Nigeria.

x Dollman, Guy

- 1933b. On two dugongs from Mafia Island.

Proc. Linn. Soc. London, 145: 16–17. Read Nov. 10, 1932.

–Comments on dugongs in general and on two skulls from Tanganyika sent by B.W. Savory.

Dollo, Louis

- 1889a. Le vol chez les vertébrés. *Rev. Quest. Sci.*, 26: 146–207, 410–485.
–Sirs., 188.

x Dollo, Louis

- 1889b. Première note sur les siréniens de Boom (résumé). *Bull. (Proc.-verb.) Soc. Belge Géol. Pal. Hydrol.*, 3: 415–421. 2 figs. Session of Oct. 30, 1889.
–Abstr.: Dollo (1890). Describes *Miosiren Kocki*, n.gen.n.sp., from the Miocene of Belgium, and compares it briefly with other sirs.

n Dollo, Louis

1890. Sur un sirénien miocène de Boom. *Ann. Soc. Sci. Bruxelles*, 14(1): 65–66. Session of Oct. 24, 1889.
–Abstract of Dollo (1889b). The new generic name *Miosiren* is mentioned, but not the specific name.

Dollo, Louis

1892. Sur la morphologie des côtes. *Bull. Sci. France Belgique*, 24: 113–129.
–Sirs., 118.

Dollo, Louis

1922. Les céphalopodes déroulés et l'irréversibilité de l'évolution. *Bijdr. Dierk. (Amsterdam)*, 22 (Feestnum. Max Weber): 215–226. Pl. 7.

Domning, Daryl Paul: SEE ALSO Aranda-Manteca et al., 1994; Barnes et al., 1985; Bradley et al., 1983; Brandt, J.F., 1974; Buffrénil et al., 1990; Bullock et al., 1977, 1980, 1981; Delaney et al., 1985; Donovan et al., 1990; Farmer et al., 1979a, 1979b; Haley, D., 1980; Ketten et al., 1992; Marine Mammal Commission, 1986; Muizon & Domning, 1985; Packard, Rathbun et al., 1984; Ray & Domning, 1986; Ray et al., 1994; Shikama & Domning, 1970; Takahashi et al., 1979, 1986; Thewissen & Domning, 1992; Toledo & Domning, 1991; Appendix 1, *Sirenews*.

x Domning, Daryl Paul

- 1971a. Sireniens as guide fossils in West Coast Late Tertiary correlation—a prospectus. [Abstr.] *Geol. Soc. Amer. Abstrs. With Programs (Cordilleran Section, Riverside, Calif.)*, 3(2): 110–111. Feb. 1971 (read Mar. 27, 1971).
–Reviews known Pacific history of hydrodamalines and suggests their possible stratigraphic utility. The new combination *Metaxytherium allisoni* is used (110), and the Subfamily Hydrodamalinae is expanded in usage to include Miocene forms.

x Domning, Daryl Paul

1971b. Sirenian evolution in the North Pacific and the origin of Steller's sea cow.

Proc. 7th Ann. Conf. Biol. Sonar & Diving Mammals (Menlo Park, Calif., Stanford Research Institute): 217–220. Read Oct. 24, 1970.

–Proposes a hypothetical history of hydrodamaline evolution in response to cooling of climate. Suggests that the extermination of *Hydrodamalis* by aborigines influenced the development of North Pacific aboriginal whaling.

xD Domning, Daryl Paul

1972a. Sirenians and desmostylians in West Coast Miocene stratigraphy.

Proc. Pacif. Coast Mioc. Biostrat. Symp. (47th Ann. Pacif. Sect. Convention, Soc. Econ. Paleont. Mineral., Bakersfield, Calif., Mar. 9–10, 1972): 146–149. 1 fig. Read Mar. 10, 1972.

–Abstr.: *Amer. Assoc. Petrol. Geol. Bull.*, 57(2): 432, Feb. 1973. Summarizes geographic and stratigraphic distributions of North Pacific desmostylians and sirs., discusses their use in stratigraphy, and points out a discrepancy in southern California geological mapping.

x Domning, Daryl Paul

1972b. Steller's sea cow and the origin of North Pacific aboriginal whaling.

Syesis, 5: 187–189.

–Suggests that prehistoric human predation on *Hydrodamalis* not only led to the latter's extermination on the Asian and American mainlands, but also aided in the development of whaling technology by North Pacific natives.

x Domning, Daryl Paul

1974. Fossil seacows of the Southeast.

Rocky Echoes (Jackson, Miss., Mississippi Gem & Mineral Soc.), 14(7): 7–9. Jan. 1974.

–Pop. acc. of the stratigraphic and geographic distribution of fossil sirs. in the southeastern USA and Caribbean.

xD Domning, Daryl Paul

1975. Ecology and evolution of North Pacific sirenians. [Abstr.]

Amer. Zool., 15(3): 824. Summer 1975 (read to Soc. Syst. Zool., Aug. 21, 1975).

–Abstr. of Domning (1977b). Proposes that *Metaxytherium allisoni*, a bottom-feeder, died out due to a decline of North Pacific seagrasses and competition with desmostylians; a surface-feeding dugongid lineage, in contrast, gave rise to the kelp-eating *Hydrodamalis*.

x Domning, Daryl Paul

1977a. Observations on the myology of *Dugong dugon* (Müller).

Smithson. Contrib. Zool., No. 226: iii + 57. 2 tabs. 54 figs. Jan. 5, 1977.

–The skeletal muscles of a female Palauan dugong are described, illustrated (with maps of muscle attachments), and compared with other published descriptions of manatee and dugong musculature. Body measurements and data on skin thickness are also given, and the functional anatomy of the facial region, jaws, spine, and flippers is discussed. (For corrigenda, see Domning, 1978a: 56.) In overall body form, dugongs appear to be more specialized and efficient swimmers than manatees. The chief myological differences are in the shoulder region.

xD Domning, Daryl Paul

1977b. An ecological model for Late Tertiary sirenian evolution in the North Pacific Ocean.

Syst. Zool., 25(4): 352–362. 5 figs. “Dec. 1976” (publ. Feb. 8, 1977; read Aug. 21, 1975).

–Abstr.: Domning (1975). Outlines a set of principles and postulates for interpreting sirenian paleoecology; briefly describes the phyletic history of North Pacific sirs.; and summarizes the interpretations presented in detail in Domning (1978b) regarding their diet, functional anatomy, possible competition with desmostylians, evolutionary pattern, and the role of North Pacific paleogeographic and climatic change in their evolution.

x Domning, Daryl Paul

1977c. Criar filhotes de peixe-boi pode ser um mal negócio para você e para o filhote de peixe-boi.

A Crítica (Manaus, Brasil), Aug. 7, 1977, *Vida*, p. 3. 3 figs.

–Feature in the Sunday magazine supplement of a Manaus newspaper. Condemns the practice, by wealthy citizens of Manaus, of buying orphaned *T. inunguis* calves as “pets,” and describes the intensive efforts required to keep such animals alive and the history of such efforts at the Instituto Nacional de Pesquisas da Amazônia.

x Domning, Daryl Paul

1978a. The myology of the Amazonian manatee, *Trichechus inunguis* (Natterer) (Mammalia: Sirenia). *Acta Amazonica*, 8(2), *Supl.*, 1: 1–81. 8 tabs. 50 figs. Jun. 1978.

–Portuguese summ. The skeletal muscles of several young Amazonian manatees are described, illustrated (with maps of muscle attachments), and compared with those of other sirs. The functional anatomy of the bristles of the upper lip, the nostrils, jaws, neck, and forelimb is discussed (57–71); a vector analysis of jaw mechanics is presented (57–67), as are data on muscle weights

(67) and corrigenda to Domning, 1977a (56). Interspecific myological differences among manatees seem to be confined to the mm. rectus capitis lateralis and biceps brachii. The jaw apparatus is dominated by a very large temporalis muscle, which produces unresolved forces that are resisted at a joint between the mandible and the strong pterygoid process. *T. inunguis* is more specialized for surface-feeding and swimming than *T. manatus*.

xD Domning, Daryl Paul

1978b. Sirenian evolution in the North Pacific Ocean. *Univ. Calif. Publ. Geol. Sci.*, 118: xi + 176. 27 tabs. 37 figs. 18 pls. Sep. 8, 1978.

—Summarizes all available information on sirs. from the North Pacific basin and describes all known sir. fossils from that region, listing (in an appendix) their locality data and associated faunas, and interprets their paleoecology, functional anatomy, and phylogeny. The contents of the former dugongid subfamily Halianassinae are redistributed between the Halitheriinae and the expanded and redefined Hydrodamalinae. Seven sir. species are recognized in the North Pacific, including one halitheriine (*Dioplotherium allisoni*, n.comb.; Middle Miocene) and six hydrodamalines: *Dusisiren*, n.gen., *D. reinharti*, n.sp. (Middle Miocene), *D. Sp. B* (new; Late Miocene), *D. jordani*, n.comb. (Late Miocene-Early Pliocene), *D. Sp. D* (new; Early Pliocene), *Hydrodamalis cuestae*, n.sp. (Middle-Late Pliocene), and *H. gigas* (Pleistocene-Recent). The hydrodamalines are interpreted to constitute a single, unbranching evolutionary lineage which progressively adapted to colder and more exposed habitats and a diet of kelp. Possible competitive interactions between North Pacific sirs. and desmostylians are also discussed. Reviews data on the historical distribution of *H. gigas*, and concludes that it was in fact exterminated ca. A.D. 1768. Includes (163–165) translations by George V. Shkurkin of two Russian eyewitness accounts of *Hydrodamalis*-hunting on Bering Island (by P. Yakovlev, 1754–1755, and S. Cherepanov, 1759–1760) which had not previously been published in English.

x Domning, Daryl Paul

1978c. Sirenia. Chap. 28 in: V.J. Maglio & H.B.S. Cooke (eds.), *Evolution of African mammals*.

Cambridge & London, Harvard Univ. Press (xiii + 641 pp.), 573–581. 1 fig.

—Reviews the sir. fossil record, emphasizing occurrences in Africa and Madagascar, and presents a simplified phylogeny of sirs.

x Domning, Daryl Paul

1980. Feeding position preference in manatees (*Trichechus*). *Jour. Mamm.*, 61(3): 544–547. 2 tabs. Aug. 20, 1980.

—Experiments comparing feeding behavior of captive *T. inunguis* and *T. m. latirostris* showed that both prefer to feed as low as possible in the water column. This is interpreted to mean that all sirs., due to their subterminal mouths and regardless of rostral deflection, find it more energetically efficient to feed lower in the water column. This in turn suggests a possible selective value for evolutionary changes in rostral deflection.

x Domning, Daryl Paul

1981a. Distribution and status of manatees *Trichechus* spp. near the mouth of the Amazon River, Brazil. *Biol. Conserv.*, 19(2): 85–97. 3 figs. Jan. 1981.

—Concludes that the range of *T. manatus* in Brazil is disjunct (north and south of the Amazon), with *T. inunguis* occurring in the Amazon estuaries; the ranges of the two species are nearly or entirely mutually exclusive. Also provides notes on food plants, hunting and utilization, and conservation of manatees in the region.

x Domning, Daryl Paul

1981b. Manatees of the Amazon. *Sea Frontiers*, 27(1): 18–23. 3 figs. Jan.–Feb. 1981.

—Notice: *Oro-Bio* (*Mag. of Dental Res. Inst., Univ. of California, Los Angeles*), 3(1): 1–2, 1 fig., Fall 1981. Pop. acc. of research on *T. inunguis* at the Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, Brazil.

x Domning, Daryl Paul

1981c. *Manati* Steller, 1774 and *Trichechus exunguis* (Natterer in Dising, 1839) (Mammalia, Sirenia): proposal to place these names on the Official Indexes of Rejected and Invalid Names in Zoology. *Bull. Zool. Nomencl.*, 38(2): 130–133. Apr. 30, 1981.

—Also proposes placing *Hydrodamalis* Retzius, 1794, and *H. gigas* (Zimmermann, 1780) on the Official Lists of valid names. These proposals were accepted; see Opinion 1320 (R.V. Melville, 1985).

x Domning, Daryl Paul

1981d. Sea cows and sea grasses. *Paleobiology*, 7(4): 417–420. Dec. 17, 1981.

—Discusses the use of the sir. fossil record in constructing hypotheses about the evolution of marine and freshwater floras in the Caribbean,

North Pacific, South America, and Mediterranean.

- x Domning, Daryl Paul
1982a. Commercial exploitation of manatees *Trichechus* in Brazil c. 1785–1973. *Biol. Conserv.*, 22(2): 101–126. 12 tabs. 1 fig. Feb. 1982.
–Compilation and analysis of published statistics on commerce in meat, lard, and hides of *T. inunguis*. Records of meat-hunting of *T. manatus* in Alagoas (in 1959) and Bahia (in 1964) are also noted.
- x Domning, Daryl Paul
1982b. Evolution of manatees: a speculative history. *Jour. Paleont.*, 56(3): 599–619. 9 figs. May 1982.
–Reviews all records of fossil trichechids and possible trichechids, and proposes an evolutionary scenario for the family, based on Tertiary changes in South American drainage patterns and the evolution of floating meadows. Reports new material of: *Potamosiren* sp., Miocene, Colombia (601–602); *Ribodon limbatus*, Miocene, Argentina (602–603); *Ribodon* sp., ?Pliocene, North Carolina (604); *Trichechus* sp., Plio-Pleistocene, Brazil (603–604) and Florida (604–605) and Pleistocene, Louisiana (605). Illustrates for the first time Funderburg's (1960) Pleistocene *Trichechus* from North Carolina (605). Discusses the homology of cheek teeth in *Trichechus* (607–608), the importance of a gramineous diet in the manatees' evolution of horizontal tooth replacement (609–612), possible trichechid-dugongid competition in the Caribbean (613–614), and the present adaptive status of manatees (615–616). Suggests that root hypsodonty in *Dugong* is recently evolved (614). Concludes that trichechids probably evolved in South America from a protosirenid ancestor, and adapted there to a diet of freshwater grasses by the evolution of supernumerary molars.
- x Domning, Daryl Paul
1982c. Fossil Sirenia from the Sahabi Formation. *Garyounis Scientific Bull.* (Benghazi), *Special Issue*, No. 4: 29–32. 2 figs.
–Reports *Metaxytherium serresii* from the Early Pliocene Sahabi Formation, Libya, and suggests that this species was dwarfed due to suboptimal conditions for seagrasses in the post-Messinian Mediterranean.
- x Domning, Daryl Paul
1983. Marching teeth of the manatee. *Nat. Hist.* (New York), 92(5): 8, 10–11. 1 fig. May 1983.
–Pop. acc. of tooth replacement, dental adaptation, and evolution of manatees and their possible competition with extinct Caribbean dugongids.
- x Domning, Daryl Paul
1984a. Sea cow discovery. *Nature* (London), 308(5959): 500. Apr. 5, 1984.
–Comments on V. Rich (1983), pointing out the potential importance of a supposedly associated *Hydrodamalis* skeleton found on Bering Island in view of the incomplete knowledge of the species' osteology.
- x Domning, Daryl Paul
1984b. Sea cows of the Chesapeake Bay. *Bugeye Times* (Calvert Marine Museum, Solomons, Maryland), 9(1): 5–6. 1 fig. Spring 1984.
–Pop. acc. of *Metaxytherium calvertense* and other fossil and Recent sirs. recorded from the Chesapeake area.
- x Domning, Daryl Paul
1984c. Fossil sirenians from the Pamunkey River, Virginia. In: L.W. Ward & K. Krafft (eds.), *Stratigraphy and paleontology of the outcropping Tertiary beds in the Pamunkey River region, central Virginia coastal plain*. Atlantic Coastal Plain Geol. Assoc. (Guidebook, 1984 Field Trip, Oct. 6–7, 1984), 224–225. 1 pl.
–Reports sir. remains resembling *Metaxytherium calvertense* from the Middle Miocene Calvert Formation on the Pamunkey River.
- x Domning, Daryl Paul
1985a. Potential biochronologic utility of European sirenians. [Abstr.] *Abstrs. VIIIth Congress, Regional Committee on Mediterranean Neogene Stratigraphy, Symposium on European Late Cenozoic Mineral Resources* (Budapest, 15–22 Sep. 1985), 183.
–Points out that the European species of *Haliitherium* and *Metaxytherium* appear to form an Oligocene-Pliocene sequence of chronospecies having potential use in stratigraphic correlation.
- x Domning, Daryl Paul
1985b. Habitat protection: the only hope. *Save the Manatee Club News* (Florida Dept. Nat. Resources & Florida Audubon Soc.), Dec. 1985: [2].
–Essay on the need to protect manatee habitat in Florida.
- x Domning, Daryl Paul
1987a. Sea cow family reunion. *Nat. Hist.* (New York), 96(4): 64, 66–71. 2 figs. Apr. 1987.
–Pop. acc. of the history of study, paleoecology, and evolution of the Sirenia of the North Pacific Ocean.
- x Domning, Daryl Paul
1987b. *Halianassa studeri* von Meyer, 1838 (Mammalia,

Sirenia): proposed designation of a neotype, and proposed conservation of *Halitherium* Kaup, 1838, by designation of a type species.

Bull. Zool. Nomencl., 44(2): 122–125. Jun. 1987.

–In order to suppress the name *Halianassa studeri*, the International Commission on Zoological Nomenclature is asked to designate as its neotype the holotype of *Pugmeodon schinzii*, and to designate *P. schinzii* as type species of *Halitherium*, thereby making *Halianassa studeri* a junior objective synonym of *Halitherium schinzii*. The formal rejection of the names *Halianassa* and *studeri* is requested, as well as a ruling that the correct original spelling of *Halytherium* be deemed to be *Halitherium*. These proposals were accepted; see Opinion 1535 (ICZN, 1989).

x Domning, Daryl Paul

1987c. How long have manatees been in Florida?

Save the Manatee Club News (Florida Dept. Nat. Resources & Florida Audubon Soc.), Aug. 1987: [1–2].

–Brief pop. acc. of the sir. fossil record in Florida, showing that (contrary to a current rumor) manatees were not recently introduced into the state.

x Domning, Daryl Paul

1988. Fossil Sirenia of the West Atlantic and Caribbean region. I. *Metaxytherium floridanum* Hay, 1922. *Jour. Vert. Pal.*, 8(4): 395–426. 12 tabs. 12 figs. Dec. 14, 1988.

–Describes the history of study of fossil sirs. from the Bone Valley area, Polk and Hillsborough Cos., Florida; the geology and age of the Bone Valley deposits; the osteology of a large sample of *M. floridanum* from Bone Valley and a few specimens from elsewhere in Florida; and the phylogenetic relationships of the species. *M. floridanum* is considered to be Middle-Late Miocene in age, and a senior synonym of *M. ossivallense*. Reports of *M. calvertense* and “*Hesperosiren*” in the Bone Valley Formation actually pertain to *M. floridanum*.

xD Domning, Daryl Paul

1989a. Kelp evolution: a comment.

Paleobiology, 15(1): 53–56. “Winter 1989” (mailed Jun. 13, 1989).

–Comments on Estes & Steinberg (1988), arguing that kelps radiated prior to the Middle Miocene and were subject to intense marine-mammal herbivory from the Late Oligocene on. See also Estes & Steinberg (1989).

x Domning, Daryl Paul

1989b. Fossil sirenians from the Suwannee River, Florida and Georgia. In: G.S. Morgan (ed.), *Miocene paleontology and stratigraphy of the Suwannee*

River basin of north Florida and south Georgia. *Southeastern Geol. Soc. Guidebook*, No. 30: 54–60. 2 figs. Oct. 7, 1989.

–Describes the discoveries, relationships, and probable feeding habits of “*Halitherium*” *olseni*, *Dioplotherium manigaulti*, and *Metaxytherium* sp. found in the Miocene of the Suwannee River basin. See also G.S. Morgan (1989).

x Domning, Daryl Paul

1989c. Fossil Sirenia of the West Atlantic and Caribbean region. II. *Dioplotherium manigaulti* Cope, 1883. *Jour. Vert. Pal.*, 9(4): 415–428. 2 tabs. 6 figs. Dec. 19, 1989.

–Describes the history of study of fossil sirs. from the South Carolina phosphate beds; the age of beds in South Carolina and Florida yielding *Dioplotherium*; the osteology of available specimens of *D. manigaulti*, including a skull from the Lower Miocene of Florida; and the cladistic relationships of the species, which is formally referred to the Rytiodontinae together with *Rytiodus* and “*Halitherium*” *olseni*. Rytiodontines are hypothesized to have fed primarily on large seagrass rhizomes, and a similar adaptation is suggested for the ancestors of *Dugong dugon*.

x Domning, Daryl Paul

1989d. Fossil Sirenia of the West Atlantic and Caribbean region. III. *Xenosiren yucateca*, gen. et sp. nov. *Jour. Vert. Pal.*, 9(4): 429–437. 1 tab. 7 figs. Dec. 19, 1989.

–Describes a partial skull from the Upper Miocene or Lower Pliocene of Yucatan, Mexico; it is considered a rytiodontine and a direct descendant of *Dioplotherium*. Its cranial specializations are interpreted as adaptations for uprooting seagrass rhizomes using both jaws and tusks.

x Domning, Daryl Paul

1990a. Sirenian rhizivory studies. In: L.W. Lefebvre & J.A. Powell, Jr., *Manatee grazing impacts on seagrasses in Hobe Sound and Jupiter Sound in southeast Florida during the winter of 1988–1989*. NTIS Document No. PB 90–271883 (vi + 36), 34–36.

–Describes observations and experiments conducted to determine how thoroughly manatees can excavate and remove seagrass rhizomes, and how effective tusks of extinct dugongids might have been for this purpose.

x Domning, Daryl Paul

1990b. Fossil Sirenia of the West Atlantic and Caribbean region. IV. *Corystosiren varguezi*, gen. et sp. nov. *Jour. Vert. Pal.*, 10(3): 361–371. 1 tab. 4 figs. Sep. 20, 1990.

–Describes a skull from the Early Pliocene of

Yucatan, and skull fragments and tusks from possibly correlative deposits in Florida. The new form is considered a rytiodontine and possible sister taxon of *Rytiodus*.

- x Domning, Daryl Paul
1991a. Sexual and ontogenetic variation in the pelvic bones of *Dugong dugon* (Sirenia). *Mar. Mamm. Sci.*, 7(3): 311–316. 2 figs. Jul. 1991 (mailed Aug. 15, 1991).
–Describes variation in innominate bones of 41 male and 29 female dugongs from Queensland, and presents a key for assigning such bones to broad categories of sex, age, and sexual maturity.
- x Domning, Daryl Paul
1991b. A new genus for *Halitherium olseni* Reinhart, 1976 (Mammalia: Sirenia). *Jour. Vert. Pal.*, 11(3): 398. Sep. 30, 1991.
–Names and diagnoses the new genus *Crenatosiren*, and creates the new combination *C. olseni*.
- x Domning, Daryl Paul
1991c. Why save the manatee? In: J.E. Reynolds, III & D.K. Odell, *Manatees and dugongs*. New York, Facts on File (xiv + 192), 167–173. Oct. 1991.
–Lists and discusses a graded series of reasons for protecting manatees and other endangered species and their habitats.
- x Domning, Daryl Paul
1993a. [Letter to the editor.] *Nat. Hist.*, 102(9): 2. “Sep. 1993” (mailed Aug. 1993).
–Points out that Steller’s sea cow and not the blaauwbock was the first “large-bodied mammalian species” to become extinct in historic times, contrary to a statement by S.J. Gould.
- x Domning, Daryl Paul
1994a. West Indian tuskers. *Nat. Hist. (New York)*, 103(4): 72–73. 1 fig. Apr. 1994.
–Errata: *Nat. Hist.* 103(5): 6, May 1994. Pop. acc. of fossil dugongines and other sirs. in the Caribbean and their implications for the paleoecology and evolution of seagrass communities.
- Domning, Daryl Paul
1994b. A phylogenetic analysis of the Sirenia. In: A. Berta & T.A. Deméré (eds.), *Contributions in marine mammal paleontology honoring Frank C. Whitmore, Jr.* *Proc. San Diego Soc. Nat. Hist.*, 29: 177–189. 2 tabs. 4 figs. May 1, 1994.
–Presents the results of a cladistic analysis of 36 species and subspecies of sirs. using cranial and dental characters. Formally refers the subfamily Miosireninae to the Trichechidae, and introduces the name Trichechinae for the remaining trichechids. *Dugong dugon* is placed within the clade previously called the Rytiodontinae, and the senior name Dugonginae is extended to include this entire clade. A revised provisional classification of the Sirenia is presented.
- x Domning, Daryl Paul; & Buffrénil, Vivian de
1991. Hydrostasis in the Sirenia: quantitative data and functional interpretations. *Mar. Mamm. Sci.*, 7(4): 331–368. 5 tabs. 18 figs. Oct. 1991.
–Analyzes the distribution of skeletal mass in *T. m. latirostris* and the positions of the centers of gravity and buoyancy in *T. inunguis*, concluding that increased volume and density of bones (= “pachyosteosclerosis,” a term introduced here) do indeed serve in sirs. as ballast to maintain horizontal trim and neutral buoyancy. The design and position of the lungs also seem to serve this purpose. Selection for maintenance of trim and maximization of turning moments of the flippers may help account, respectively, for loss of hind limbs and shortening of the neck. The gross anatomy of a sir. (*T. inunguis*) is illustrated in serial cross sections for the first time. Summarizes the distribution of pachyosteosclerosis in various fossil sirs., and concludes that this condition is fully adaptive and in no sense “pathological.”
- x Domning, Daryl Paul; & Clark, James M.
1993. Jamaican Tertiary marine Vertebrata. In: R.M. Wright & E. Robinson (eds.), *Biostratigraphy of Jamaica*. *Geol. Soc. Amer. Mem.*, 182: 413–415. Dec. 1993.
–Reviews the occurrences of *Prorastomus sirenoides* in Early and Middle Eocene rocks of Jamaica (414).
- x Domning, Daryl Paul; & Deméré, Thomas A.
1984. New material of *Hydrodamalis cuestae* (Mammalia: Dugongidae) from the Miocene and Pliocene of San Diego County, California. *Trans. San Diego Soc. Nat. Hist.*, 20(12): 169–188. 4 tabs. 7 figs. Nov. 20, 1984.
–Reviews the geology and biostratigraphy of the San Mateo and San Diego Formations, and describes new cranial and postcranial specimens of *H. cuestae* from both; confirms the supposed abnormality of the holotype and the large size of the species in the southern part of its range.
- x Domning, Daryl Paul; & Frye, Fredric L.
1975. Pathology of two fossil sea cows (Mammalia: Sirenia). *PaleoBios* (Berkeley, Univ. Calif. Mus. Pal.), No.

18: 1–4. 2 pls. Jul. 10, 1975.

–Reprinted in a bound vol. of the early issues of *PaleoBios*, 1980. Describes fractures, osteomyelitis, and ossifying spondylosis in *Metaxytherium jordani* and osteitis deformans or osteitis fibrosa in *Hydrodamalis* n.sp. from California.

- x Domning, Daryl Paul; & Hayek, Lee-Ann C.

1984. Horizontal tooth replacement in the Amazonian manatee (*Trichechus inunguis*). *Mammalia* (Paris), 48(1): 105–127. 7 tabs. 7 figs. Mar. 5, 1984.

–French summ. Analysis of tooth-loss data from captive manatees indicates rates of tooth movement on the order of 1 mm/month. The rates vary directly with food (especially grass) consumption, and are probably controlled by the mechanical stress of chewing. The replacement process seems adapted to a diet that is both tough and abrasive, and does not work as well when (as in Florida manatees) these two factors are decoupled.

- x Domning, Daryl Paul; & Hayek, Lee-Ann C.

1986. Interspecific and intraspecific morphological variation in manatees (Sirenia: *Trichechus*). *Mar. Mamm. Sci.*, 2(2): 87–144. 7 tabs. 4 figs. Apr. 1986.

–Discusses the external and internal characteristics of the living manatee species, with an extensive statistical analysis of measurements and qualitative features of the skull and mandible. No significant sexual dimorphism was found (97). Salient ontogenetic changes in the skull are briefly noted (97–99). The subspecies *T. m. manatus* and *T. m. latirostris* are found to be morphologically distinguishable and taxonomically valid; the vernacular name “Antillean manatee” is proposed for the former (125). Cold weather in the northern Gulf of Mexico and strong currents in the Straits of Florida are suggested as causes of the apparent genetic isolation of Florida manatees. Alleged subspecies of *T. senegalensis* are considered to be baseless (126). Detailed diagnoses are given for all the species and subspecies (126–130). The functional significance of diagnostic cranial differences is discussed (130–131). Cladistic analysis suggests that *T. manatus* and *T. senegalensis* are each other’s closest relatives (132–136); the *senegalensis*-like features of a Pleistocene skull from South Carolina illustrate the general primitiveness of the African species.

- x Domning, Daryl Paul; & Magor, Diana Marion

1977. Taxa de substituição horizontal de dentes no peixe-boi. *Acta Amazonica*, 7(3): 435–438. Sep. 1977.
–Preliminary report on tooth replacement in *T.*

inunguis. Tooththrow movement, initiated by weaning, is on the order of 1 mm/month in captive animals and is directly proportional to intake of solid food.

The cover of this issue depicts Domning bottle-feeding a manatee calf.

- x Domning, Daryl Paul; Morgan, Gary Scott; & Ray, Clayton Edward

1982. North American Eocene sea cows (Mammalia: Sirenia).

Smithson. Contrib. Paleobiol., No. 52: iii + 69. 3 tabs. 34 figs. Sep. 3, 1982.

–Briefly reviews the worldwide Eocene sir. record, and reports in detail on the 22 known New World Eocene localities (1–17). New specimens from Florida (18–39) and North Carolina (39–59) are described, compared with other sirs., and referred to *Protosiren* sp. New records of Pleistocene *Trichechus manatus* from the Waccasassa River, Florida (18), and of *Protosiren* n.sp. from the Late Eocene of Egypt (55–56, 59), are also reported. The primitive sir. dental formula is confirmed to have been 3.1.5.3, and the significance of this for eutherian phylogeny is pointed out (59–60). The pan-Tethyan distribution of Eocene sirs. and its biostratigraphic potential, the possible sequence of sir. adaptive radiations (60–61), and the probable seagrass diet of Eocene sirs. (61–62) are discussed; concludes that the distribution of fossil sirs. is a more reliable guide to the past presence of seagrasses than are the distributions of Foraminifera or other organisms.

- x Domning, Daryl Paul; & Myrick, Albert C., Jr.

1980. Tetracycline marking and the possible layering rate of bone in an Amazonian manatee (*Trichechus inunguis*). In: W.F. Perrin & A.C. Myrick, Jr. (eds.), Age determination of toothed whales and sirenians.

Repts. Internatl. Whaling Comm., Special Issue, 3: 203–207. 3 figs.

–The successful marking of a rib, using a 7.1–8.5 mg/kg dosage of Terramycin, suggests a periosteal bone deposition rate of one layer per year. Layering in ribs and mandibles of *T. manatus* is also discussed.

- x Domning, Daryl Paul; & Ray, Clayton Edward

1986. The earliest sirenian (Mammalia: Dugongidae) from the eastern Pacific Ocean.

Mar. Mamm. Sci., 2(4): 263–276. 1 tab. 6 figs. Oct. 1986.

–A partial skull and mandible from the Early Miocene Nye Mudstone in Oregon is referred to Halitheriinae gen. et sp. indet. The possible entry

of sirs. into the North Pacific in the Late Oligocene and Early Miocene is discussed in terms of climate and paleogeography (273–274).

x D Domning, Daryl Paul; Ray, Clayton Edward; & McKenna, Malcolm Carnegie

1986. Two new Oligocene desmostylians and a discussion of tethytherian systematics.

Smithson. Contrib. Paleobiol., No. 59: iii + 56. 23 figs. May 28, 1986.

–Describes *Behemotops*, n.gen. (6), *B. proteus* (6) and *B. emlongi* n.sp. (23) from Washington and Oregon, respectively, as the most primitive known desmostylians. Reviews at length the history of desmostylian and tethytherian systematics, and presents a cladistic analysis of the Tethytheria (36–38), concluding that the Desmostylia and Proboscidea are sister-groups whose next closest relatives are the Sirenia. *Moeritherium*, *Antracobune*, and *Minchenella* are also discussed in detail (38–45); the latter is considered a possible ancestor of both Proboscidea and Desmostylia. Desmostylians are regarded as herbivores that fed intertidally and subtidally (47–48).

x Domning, Daryl Paul; Rice, Dale W.; Shoshani, Jeheskel; & Hoffmann, Robert S.

1982. Order Sirenia. In: J.H. Honacki, K.E. Kinman, & J.W. Koepl (eds.), *Mammal species of the world: a taxonomic and geographic reference*.

Lawrence (Kansas), Allen Press & Assoc. Systematics Colls. (ix + 694 pp.), 305–306.

–Ed. 2: see D.E. Wilson (1993). Gives very brief nomenclatural and distributional notes on the Recent sirs., citing their current conservation status under the Convention on International Trade in Endangered Species (CITES) and the U.S. Endangered Species Act, and their International Species Inventory System (ISIS) numbers.

x Domning, Daryl Paul; & Thomas, Herbert

1987. *Metaxytherium serresii* (Mammalia: Sirenia) from the Early Pliocene of Libya and France: a reevaluation of its morphology, phyletic position, and biostratigraphic and paleoecological significance. In: N.T. Boaz, A. El-Arnauti, A.W. Gaziry, J. de Heinzelin, & D.D. Boaz (eds.), *Neogene paleontology and geology of Sahabi*.

New York, Alan R. Liss (xv + 401 pp.), 205–232. 12 tabs. 13 figs.

–Arabic, French, and German summs. Reviews the history of the name *Metaxytherium serresii* (206–207); summarizes the record of *Metaxytherium* in Europe (207–209); describes the material of *M. serresii* from Sahabi, Libya (209–223); presents a cladistic analysis of European *Halitherium* and *Metaxytherium*

(223–228); and reviews the stratigraphic context of *M. serresii* at Montpellier, France (228–229). Concludes that *H. christolii*, *M. krahuletzii*, *M. medium*, *M. serresii*, and *M. forestii* form a single lineage, probably derived from *H. schinzii*. The small size of *M. serresii* is attributed to dwarfing caused by poor nutrition, due in turn to reduced diversity, quality, and/or quantity of seagrasses in the post-Messinian Mediterranean.

Dong, Jinhai; Song, Guangze; & Wang, Guangjie

1992. Preliminary study on anatomy and histology of larynx, trachea and lung of *Dugong dugon*.

Oceanologia et Limnologia Sinica, 23(4): 433–437. 1 tab. 2 figs. 2 pls. Jul. 1992.

–In Chinese; Engl. summ.

Donndorff, Johann August

1792. *Zoologische Beyträge zur XIII. Ausgabe des Linnéischen Natursystems.... Erster Band. Die Säugthiere*.

Leipzig, Weidmannschen Buchhandlung, xx + 840.

–Allen 424. Vol. 2 (birds) publ. 1794–1795. “*Trichechus Manatus*,” including all the then-known species of sirs., 128–131.

x Donovan, Stephen K.; Domning, Daryl Paul; Garcia, Frank A.; & Dixon, Harold L.

1990. A bone bed in the Eocene of Jamaica.

Jour. Paleont., 64(4): 660–662. 1 tab. 3 figs. “Jul. 1990” (publ. Sep. 1990).

–Describes an exposure of the early Middle Eocene Chapelton Formation at Dump, near Christiana, Manchester Parish, which yielded a new specimen of *Prorastomus sirenooides* as well as other fossil vertebrates. This specimen, a partial skeleton, was the first specimen of *Prorastomus* collected in situ.

Dophon, Yannicke

1984. Mise en évidence d’une structure prismatique dans l’email d’un reptile archosaurien actuel: *Alligator mississippiensis* (Daudin).

C.R. Acad. Sci. Paris, Sér. II: Mec.-Phys., Chim., Sci. Terre, Sci. Univ., 298(20): 911–914. Illus. May 1984.

–Engl. summ. Mention of *Metaxytherium*.

Doran, Alban H.G.

1878. Morphology of the mammalian ossicula auditūs. *Trans. Linn. Soc. London*, (2)1: 371–497. Pls. 58–64.

–Sirs., 464–470, pl. 63.

x Doran, Alban H.G.

1884. On the auditory ossicles of *Rhytina stelleri*.

Jour. Linn. Soc. London (Zool.), 17: 366–370. 3 figs. Read Dec. 20, 1883.

- Compares the ossicles of *Rhytina* with those of *Halicore* and *Manatus*.
- D'Orbigny, Charles Dessalines
1840. *Keepsake d'histoire naturelle. Description des mammifères*. Paris, Bazouge-Pigoreau, i–xlviii.
—Consists of the "Introduction," apparently the only part of the projected work ever published. I cannot explain the citation in Palmer (1904: 398), referring to a mention of "*Monatus*" on pp. 256–257 and pl. 41, fig. 2.
- Dorozynski, A.
1974. Les sirènes de Colomb. *Quebec Sci.*, 12(9): 7. 2 figs.
- Dosch, Friedrich
1915. Bau und Entwicklung des Integuments der Sirenen. *Jena. Zs. Natw.*, 53(= n.s. 46)(4): 805–854. 15 figs. Oct. 4, 1915.
—Engl. transl.: *Natl. Research Council of Canada Tech. Transl.* No. 1626, 1973.
- Douglas, Sue
1982a. Florida's manatee mystery: scientists puzzle over a sudden die-off. *Defenders*, 57(4): 12–15. 6 figs. + back cover illus. Aug. 1982.
- Douglas, Sue
1982b. To save a vanishing Floridian. *Oceans*, 15(6): 8–15. Cover illus. + 7 figs. Nov.–Dec. 1982.
- Douvillé, H.
1911. *La Peninsule Ibérique. A. Espagne*. Heidelberg. —Sirs., 104.
- Drasche, R. von
1884. Revision der in der Nematoden-Sammlung des k. k. zoologischen Hofcabinetes befindlichen Original-Exemplare Diesing's und Molin's. *Verh. zool.-bot. Ges. Wien*, 33: 107–118.
—Redescription of *Heterocheilus tunicatus*.
- xD Drewes, Harald; Fraser, G.D.; Snyder, G.L.; & Barnett, H.F., Jr.
1961. Geology of Unalaska Island and adjacent insular shelf, Aleutian Islands, Alaska. *U.S. Geol. Surv. Bull.*, 1028-S: 583–676. 3 tabs. Figs. 81–103. Pls. 75–78.
—Considers remains of ?*Cornwallius* and *Mya* cf. *truncata* from Unalaska to be indicative of a cool shallow-water environment in the Late Oligocene or Early Miocene (606–607, 667).
- Du Bocage, J.V. Barbosa
1890. Mammifères d'Angola et du Congo. *Jour. Sci. Math. Phys. Nat. Lisboa*, (2)2(5): 1–32.
—Sirs., 29–30.
- Du Bus, Bernard-Amé-Léonard, Vicomte
1868. Note sur une découverte paléontologique faite à Boom. *Bull. Acad. Sci. Belgique*, (2)26: 20.
—Mention of *Halitherium*, Belgium. See also T. Lefèvre (1889).
- x Du Chaillu, Paul Belloni
1861a. [Descriptions of new species of mammals discovered in western equatorial Africa.] *Proc. Boston Soc. Nat. Hist.*, 7: 358–367. Read Nov. 7, 1860.
—Tentatively proposes the new specific name *Manatus Oweni*, which "probably" is synonymous with *M. Vogelii*, if the latter be valid(!). Gives the vernacular name *manga* from the "Camma country," with a short description and measurements of a manatee that lacked nails; notes that the species eats leaves fallen from the banks and aquatic grass, and avoids salt water (367). See also J.E. Gray (1862).
- x Du Chaillu, Paul Belloni
1861b. *Explorations & adventures in equatorial Africa; with accounts of the manners and customs of the people, and of the chase of the gorilla, crocodile, leopard, elephant, hippopotamus, and other animals*. London, John Murray, xviii + 479. Illus. 1 map.
—Lists "*Manatus Oweni*" among "Species Discovered by F. [sic] B. Du Chaillu" (471). See also J.E. Gray (1861).
- Dubois, Thierry: SEE Jacquet et al., 1989.
- Dubrovo, Irina Aleksandrovna: SEE ALSO Sinel'nikova et al., 1985.
- xD Dubrovo, Irina Aleksandrovna; & Sinel'nikova, Valentina Nikolayevna
1971. Desmostylidy neogena Kamchatki. [Neogene desmostylids of Kamchatka.] *Dokl. Akad. Nauk SSSR (Earth Sci. Sects.)*, 199(3): 670–673. 2 figs. Aug. 1971 (presented Jun. 5, 1970).
—This serial is also published in Engl. by the Amer. Geol. Inst. Describes *Desmostylus hesperus* teeth from deposits in Kamchatka considered Miocene in age on the basis of the *Desmostylus* and molluscs. Considers all other species of *Desmostylus*, as well as *Kronokotherium*, synonyms of *D. hesperus*.
- Dudich, E., Jr.: SEE Detre et al., 1971.
- Duerden, J.E.
1901. *The marine resources of the British West Indies*. *West Indian Bull.* (Imper. Dept. Agric. for the West Indies), 2: 121–127.
—Manatee, 125, 127.

Duff, Robert

1866. *British Guiana: being notes on a few of its natural productions, industrial occupations, and social institutions.*
Glasgow, T. Murray & Son, viii + 394. Illus.
—Sirs., 135–139.

Duffield, D.A.: SEE Cornell et al., 1982; White et al., 1976, 1977.

Duguy, R.: SEE ALSO Van Bree & Duguy, 1977.

Duguy, R.; & Cyrus, J.-L.

1976. Catalogue des mammifères marins conservés au Muséum de Marseille.
Bull. Mus. Hist. Nat. Marseille, 36: 37–39.

Duguy, R.; & Defretin, R.

1979. Catalogue des collections de mammifères marins du Musée d'Histoire Naturelle de Lille.
Ann. Soc. Sci. Nat. Charente-Marit., 6(6): 475–481.

Duhamel du Monceau, Henri Louis; & La Marre, L.H. de

1782. *Traité général des pesches, et histoire des poissons qu'elles fournissent, tant pour la subsistance des hommes, que pour plusieurs autres usages qui ont rapport aux arts et au commerce.*
Paris, Saillant & Nyon, & Veuve Desaint (entire work, 4 vols., 1769–1782), Vol. 4 (Dixième Section): 1–73. 15 pls.
—Allen 370. Manatee, 56–59, pl. 13.

Duke, K.L.: SEE Mossman & Duke, 1973.

Duke-Elder, S. (ed.)

1957. *System of ophthalmology. Vol. 1. The eye in evolution.*
London, Henry Kimpton.
—Sirs., 446, 472–473, 480, 493–496, 502–503.

Dukeman, Angela K.: SEE Kadel, Dukeman, & Patton, 1991.

Duméril, André Marie Constant: SEE ALSO Cuvier, G., 1800–1805.

Duméril, André Marie Constant

1806. *Zoologie analytique, ou méthode naturelle de classification des animaux, rendue plus facile à l'aide de tableaux synoptiques.*
Paris, Allais, xxxii + 344.
—Allen 478. “XIIIe. Famille, Amphibies” [= Pinnipedia + Sirenia], including *Dugong* and *Manatus*, 26–27.

Duméril, André Marie Constant

1837. Communication sur le même sujet [*Dinotherium giganteum*].
C.R. Acad. Sci. Paris, 4(12): 427. Read Mar. 20, 1836.
—?Abstr.: *L'Institut*, 5: 94? Comment on de Blainville (1837).

Dumont d'Urville, J.: SEE Pucheran & Jacquinot, 1853; Quoy & Gaimard, 1830.

x Duncan, J.F.

1908. Capt. Parkinson's manatee.
Forest & Stream, 71(16): 611–612. Oct. 17, 1908.
—Account of a male manatee, “between twelve and fifteen feet long and estimated to weigh between fifteen hundred and two thousand pounds,” caught at Ocean View, Virginia, but escaped. (See also Anon., 1908a.)

Dupon, J.F.

1969. *Recueil de documents pour servir à l'histoire de Rodrigues.*
Port-Louis, R. Coquet.

x Dupuy, André R.

1972. Le Parc national des Oiseaux du Djoudj (République du Sénégal).
Bull. Inst. Fondam. Afr. Noire, Sér. A, Sci. Nat., 34(3): 774–781. 7 figs. 1 map.
—Notes that *T. senegalensis* is “very rare” in the park, sometimes ascending small rivers at the flood stage (780).

Dupuy, André R.

1973. Premier inventaire des mammifères du Parc national de Basse Casamance (Sénégal).
Bull. Inst. Fondam. Afr. Noire, Sér. A, Sci. Nat., 35(1): 186–197.

Dupuy, André R.; & Maigret, J.

1976. Les mammifères marins des côtes du Sénégal. 1. Bilan des observations signalées entre 1960 et 1976.
Bull. Inst. Fondam. Afr. Noire, Sér. A, Sci. Nat., 38(4): 921–928. 4 figs.

Dupuy, André R.; & Maigret, J.

1978. Les mammifères marins des côtes du Sénégal. 2. Observations signalées en 1977.
Bull. Inst. Fondam. Afr. Noire, Sér. A, Sci. Nat., 40(2): 457–465.

Dupuy, André R.; & Verschuren, J.

1977. Wildlife and parks in Senegal.
Oryx, 14(1): 36–46. 10 figs.
—Discusses *T. senegalensis* in Djoudj National Park, 41–43.

Durand, José

- 1950a. *Ocaso de sirenas; manatías en el siglo XVI.*
México, Tezontle, 1–129. Illus.
—?New ed.: *El ocaso de las sirenas (esplendor de manatías)*, México, Edit. Fondo de Cultura Económica, 1983. Comparison and discussion of the early accounts of manatees.

Durand, José

- 1950b. Manatí, mato, manato.
Nueva Revista de Filología Española (México), 4: 274–276.

D Durham, J. Wyatt

1950. Megascopic paleontology and marine stratigra-

- phy. In: The 1940 E.W. Scripps cruise to the Gulf of California, Part 2.
Geol. Soc. Amer. Mem., 43: 1-216.
- D Durham, J. Wyatt; & Allison, Edwin C.
1960. The geologic history of Baja California and its marine faunas. In: Symposium: The biogeography of Baja California and adjacent seas. Part 1: Geologic history.
Syst. Zool., 9: 47-91.
- Dutton, T.P.: SEE Tinley et al., 1976.
- Duvall, David: SEE Mackay-Sim et al., 1985.
- Duvaucel: SEE Diard & Duvaucel.
- x Duvernoy, Georges-Louis
1835a. Plusieurs notes sur quelques ossemens fossiles de l'Alsace et du Jura.
Mém. Soc. Mus. Hist. Nat. Strasbourg, 2, Mém. GG: 1-12. 1 pl. Read Aug. 4, 1835.
-Allen 847. The first note, "I. Sur un cétacé fossile, voisin des dugongs et des lamantins, trouvé à Roedersdorf, dans le Département du Haut-Rhin" (1-9, pl.), describes a headless skeleton from the "calcaire grossier" (age?).
- x Duvernoy, Georges-Louis
1835b. Tableaux des ordres, des familles et des genres de mammifères, adoptés pour le cours de zoologie de la Faculté des Sciences.
Mém. Soc. Mus. Hist. Nat. Strasbourg, 2, Mém. KK: 1-10. 5 unnumbered tabs.
-Allen 846. "Ordre XIV. Amphibies trirèmes... Fam. des *Lamantins*" comprises *Manatus americanus*, *Halicore Dugung*, and *Rytina* or *St[ellerus]. borealis* (8, tab. 4); the table includes diagnoses in hierarchical form.
- Duvernoy, Georges-Louis
1835c. Sur le squelette d'un cétacé fossile découvert dans une carrière de Roedersdorf, village du département du Haut-Rhin.
L'Institut, 3(126): 326-327. Oct. 7, 1835.
-Allen 848. Abstr., *Froriep's Notizen*, 46: 275-277? Probably a summary of Duvernoy (1835a).
- x Dybowski, Benedikt
1883. Notice sur la différence sexuelle entre les crânes de la *Rhytina stelleri*.
Proc. Zool. Soc. London, 1883(1): 72-73. Jun. 1883 (read Feb. 20, 1883).
-Mentions several supposed points of difference, due mainly to the more robust build of the presumed male. The Aleuts are said to distinguish the male skulls by the term "Byk" (bull).
- Dyson, Steve: SEE Doig & Dyson, 1988.

E

- Eaton, Jack D.
 1978. Archaeological survey of the Yucatan-Campeche coast.
Middle Amer. Res. Inst. Publ., 46(1).
- x Eberhardt, L. Lee
 1982. Censusing manatees: a report on the feasibility of using aerial surveys and mark and recapture techniques to conduct a population survey of the West Indian manatee.
Manatee Population Research Rept. (Gainesville, Fla., Florida Cooperative Fish & Wildlife Research Unit), No. 1: 1-18. 1 tab. 3 figs. Dec. 1982.
 -Some copies have an early version of the cover & title page, which incorrectly gives the author's name as Lee L. Eberhardt. See also Appendix 1.
 Recommends development of peduncle and other sorts of tags, and more extensive and sophisticated analysis of abundance data from warm-water refugia, in order to provide indices of population trends. These would serve as the basis for a census method, but an immediate state-wide census is not recommended. The population in Florida is assumed to be well in excess of the currently accepted figure of 1000. Fig. 1 shows trends in counts at 6 refugia, 1977-1981.
- Eberhardt, L. Lee; Chapman, Douglas G.; & Gilbert, J.R.
 1979. A review of marine mammal census methods.
Wildl. Monogr., 63: 1-46.
- Ebner, Fritz; & Graef, Walter
 1977. Die Fauna von Weitendorf.
Jahresber. Landesmus. Joanneum (Graz), 1976(6) (= n.s. 6): 157-183. 10 pls.
- Edelbrock, Joyce
 1975. Manatees, sirens of the sea.
Oceans, 8(6): 66-69. Nov.-Dec. 1975.
- Edinger, Tilly
 1930. Von der Stellerschen Seekuh.
Ber. Senck. Naturf. Ges. (Frankfurt a. M.), 60: 221-225. 3 figs.
- Edinger, Tilly
 1933a. Die Foramina parietalia der Säugetiere.
Zs. Anat. Entwicklungsges., 102(2/3): 266-289. 28 figs. Dec. 27, 1933.
 -Sirs., 273-275.
- Edinger, Tilly
 1933b. Über Gehirne tertiärer Sirenia Ägyptens und Mitteleuropas sowie der rezenten Seekühe.
Abh. Bayer. Akad. Wiss., math.-natw. Abt. (n.s.), 20: 5-36.
 -Edinger (1975) says in part concerning this item: "Brain and endocranial cast in sirenians" (pp. 6-14) details the safely interpretable features of the latter, and warning of likely errors, e.g., the lack of petrosal bones can simulate an enormously broad cerebellum on endocasts.... 'New fossil material' (pp. 14-25) consists of six *Protosiren*, figs. 4-5; one fragment of *Eosiren*, fig. 6; three *Halitherium*, figs. 7a-c, 8, 9; three *Rhytina*, not figured. 'Paleoneurological contributions to ecology and phylogeny of the Sirenians' (pp. 25-30) and 'Summarizing remarks' (pp. 30-32) stress the almost basically unchanged character Eocene-to-Recent, and that the Eocene brain represents a type common to early subungulates, being, except for olfactory reduction, similar to that of *Arsinoitherium*, and that of *Moeritherium*...." To this annotation the editors of Edinger (1975) (q.v.) append a discussion of an unpublished endocast of *Desmostylus*.
- Edinger, Tilly
 1939. Two notes on the central nervous system of fossil Sirenia.
Bull. Fac. Sci. Fouad I Univ. (Cairo), 19: 43-58. 3 pls.
 -Arabic summ. Edinger (1975) gives the following annotation: "I: A newly discovered 'brain' of an old *Protosiren*, pp. 43-50, Pl. I (dorsal), Pl. II (frontal, reduced olfactory bulbs!), Pl. III; II: On the spinal cord of fossil Sirenia, pp. 51-57. As the lumen of the neural canal in the vertebral column of Recent, Pliocene, and Miocene Sirenia diminishes caudad from the brachial enlargement, its enlargement in the posterior dorsal vertebrae in Miocene, Oligocene, and Eocene forms indicates that a lumbar intumescence of the spinal cord was maintained during reduction of femur and pelvis."
- Edinger, Tilly
 1942. The pituitary body in giant animals, fossil and living: a survey and a suggestion.
Quart. Rev. Biol., 17: 31-45.
 -Considers endocasts of *Hydrodamalis* and other mammals to be less satisfactory than those of large ratite birds for studies of gigantism and brain size (38-41?).

- Edinger, Tilly
1950. Die Paläoneurologie am Beginn einer neuen Phase.
Experientia, 6: 250–258. 4 figs.
–Engl. summ. From Edinger (1975): “The ‘new phase’ is systematic preparation of endocasts from established ancestries, such as ... *Eotherium* (fig. 3c) to dugong.”
- D Edinger, Tilly
1955. Objet et résultats de la paléoneurologie. [Abstr.] *Colloq. Internat., Centre Natl. Rech. Sci.*, 60: 35–38.
–From Edinger (1975): “... mentions Proboscidea, Sirenia, and that a partly exposed *Desmostylus* brain resembles the sirenian type.”
- Edinger, Tilly
1960. Behavioral specialization reflected in brain morphology. [Abstr.] *Anat. Rec.*, 138: 345–346.
–Gives examples from the Sirenia, Pterosauria, and Chiroptera.
- D Edinger, Tilly
1963. Neues aus der Paläoneurologie. *Paläont. Zs.*, 37: 8–9, 49–55.
–The brain of *Desmostylus* is said to be of sirenian type (51–52).
- x D Edinger, Tilly
1975. Paleoneurology 1804–1966: an annotated bibliography. *Advances Anat. Embryol. Cell Biol.*, 49(1–6): 1–258.
–Published posthumously. The annotation accompanying the citation of Edinger (1933b) (q.v.) includes a discussion, written by the bibliography’s editors, of an unpublished cranial endocast of *Desmostylus* (50).
- Edwards
1875. *Guide to Florida*. [Publ.?] –Same as Rambler (1875)? *Sirs.*, 69.
- Edwards, Alphonse Milne: SEE Milne-Edwards, Alphonse.
- x Edwards, Bryan
1801. *The history, civil and commercial, of the British colonies in the West Indies. Third edition, with considerable additions*. London, John Stockdale (3 vols.), Vol. 1: xxiv + xxiii + 576. Frontisp. 6 pls. 9 maps.
–Ed. 1, 1793, 2 vols. (= vols. 1–2 of this ed.?). Ed. 5, 1818–1819, 5 vols. Describes the manatee and states that Indians in the West Indies used to catch it (as they caught fish and turtles) with remoras fastened to lines (1: 127).
- Edwards, Henri Milne: SEE Milne-Edwards, Henri.
- x Edwards, William Ellis
1967. The Late-Pleistocene extinction and diminution in size of many mammalian species. In: P.S. Martin & H.E. Wright, Jr. (eds.), *Pleistocene extinctions: the search for a cause*. New Haven & London, Yale Univ. Press (453 pp.), 141–154.
–P. 148: {“Even some local forms of sea mammals, like the Florida seal (Rouse, 1951) and the California Steller’s sea cow (which survived in a refuge in the Bering Sea), were eventually exterminated. Such examples are significant, for the only sea mammals to become extinct in prehistoric times were unusually vulnerable to human hunters because of occasional sojourns on land or at least littoral habits.”}
- x Edwards, William H.
1847. *A voyage up the River Amazon*. New York, D. Appleton & Co., 1–256. Illus.
–Describes the external appearance of an Amazonian manatee and the hunting and use of manatees by Indians (187–188, 1 fig.). The skull was given to a Dr. Morton, who recognized it as a species distinct from the West Indian manatee. Also mentions a manatee in captivity in Pará (= Belém), and two taken to New York by a Captain Appleton. A British ed. (London, John Murray, 1–210, 1847) has the identical material on pp. 149–150 but lacks the fig.
- Eger, O.: SEE Dexler & Eger, 1911.
- x Eggeling, H.
1904. Zur Morphologie des Manubrium sterni. *Denkschr. Med.-natw. Ges. Jena*, 11 (Festschr. 70sten. Geburtstag Ernst Haeckel), 59–114. 43 figs. Pl. 6.
–Brief and not very informative comment on the shape and ossification of the manubrium in *Halicore* and *Manatus* (99).
- Eguchi, Kenichiro: SEE Inuzuka, N., 1989a.
- Ehrenberg, Christian Gottfried: SEE Hemprich & Ehrenberg, 1828–1899.
- Ehrenberg, Kurt
1927. Bestimmung der Knochenreste von Friedberg nebst einigen Bemerkungen über dieselben. *Verh. Geol. Bundesanst. Wien*, 1927(4): 103–106. Apr. 1927.
- Ehrlich, Franz Carl
1848. Über die fossilen Säugethierreste aus den Tertiär-Ablagerungen der Umgebung der Provinzial-Hauptstadt Linz in Oberösterreich. [or?] Fossile Säugethierreste des Museums Francisco-Carolinum in Linz. *Ber. Mitt. Freunde Natw. Wien*, 4(2): 197–200. 4 figs.
- Ehrlich, Franz Carl
1855. Beiträge zur Palaeontologie und Geognosie von

- Oberösterreich und Salzburg.... I. Die fossilen Cetaceen-Reste aus den Tertiär-Ablagerungen bei Linz, mit besonderer Berücksichtigung jener der *Halianassa Collinii* H. v. M., und des dazu gehörigen, im August des Jahres 1854 aufgefundenen Rumpfskelettes.
Ber. Mus. Franciscus-Carolinum Linz, 15 (Suppl.): 3–21. 6 figs. 2 pls.
 –Review: *Jahrb. Geol. Reichsanst. Wien*, 7: 163, 1856?
- Eichler, Roland; & Albrecht, Helmut
 1970a. Manatees.
Animals, 13(5): 204–207. 7 figs. Sep. 1970.
 –Pop. acc. of manatees at Crystal River, Florida.
- Eichler, Roland; & Albrecht, Helmut
 1970b. Tonnenschwere Seekühe duldeten uns unter sich.
Das Tier (Frankfurt a. M.), No. 2.
- Eichwald, Carl Eduard Ivanovich von
 1840. *Die Urwelt Russlands, durch Abbildungen erläutert. Erstes Heft.*
 St. Petersburg, Journal de Saint-Petersbourg (4 Hefte, 1840–1848), 1–106. 4 pls.
 –Reprinted from *Schr. St. Petersburgischen Mineral. Ges. Sirs.*, 35, pl. 2.
- Eichwald, Carl Eduard Ivanovich von
 1850. *Paleontologiya Rossii. Opisanie molassovoi i namyvnoi formatsii Rossii, po obraztsam' khranishchimsia v' Muze' Imperatorskoi Mediko-khirurgicheskoi Akademii.*
 St. Petersburg, Eduard Pratz. With Atlas.
 –Sirs., 170–175; includes *Dinotherium proavus*, n.sp., *Rhytina (Manatus) borealis*, and *Manatus maeoticus*, n.sp. (174).
- Eichwald, Carl Eduard Ivanovich von
 1853. *Lethaea rossica; ou, Paléontologie de la Russie, décrite et figurée.... Troisième volume. Dernière période.*
 Stuttgart, E. Schweizerbart, xix + 533 (1853); atlas: 14 pls. (1852).
 –Mentions *Rhytina*, 342.
- Eichwald, Carl Eduard Ivanovich von
 1866. Die *Rhytina borealis* und der *Homocrinus dipentis* in der *Lethaea Rossica*.
Bull. Soc. Nat. Moscou, 39(1): 138–162. Pl. 8.
 –Discusses *Rhytina*, 138–146.
- Eichwald, Carl Eduard Ivanovich von
 1867–1868. Die *Lethaea Rossica* und ihre Gegner.
Bull. Soc. Nat. Moscou, ?40(3): 220–227; 41(2): 311–373.
 –Discusses *Rhytina*.
- Eimer, Gustav Heinrich Theodor
 1901. *Vergleichend-anatomisch-physiologische Untersuchungen über das Skelett der Wirbeltiere.*
 Leipzig, W. Engelmann, xi + 263. 66 figs.
 –Sirs., 259.
- Eisenberg, John F.: SEE ALSO Brownell & Ralls, 1981.
- Eisenberg, John F.
 1989. *Mammals of the Neotropics. The northern Neotropics. Vol. 1. Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana.*
 Chicago & London, Univ. Chicago Press, x + 449. Illus.
- Eisentraut, Martin
 1976. Das Gaumenfaltenmuster der Säugetiere und seine Bedeutung für stammesgeschichtliche und taxonomische Untersuchungen.
Bonner Zool. Monogr., 8: 5–214.
 –Engl. summ. *Sirs.*, 157–159, 210.
- Eisentraut, Martin
 1984. Das Gaumenfaltenmuster bei Schliefern, Elefanten und Sirenen.
Bonner Zool. Beitr., 35(1–3): 29–37.
 –Engl. summ.
- Eisvogel, Gerd
 1973. Makrofossilien des Mainzer Beckens: eine Ergänzung.
Aufschluss, 24(5): 194–195. May 1973.
- Ekman, Sven
 1935. Indo-Westpazifik und Atlanto-Ostpazifik, eine tiergeographische Studie.
Zoogeogr., 2: 320–374. 11 figs.
- El-Domiaty, N.A.: SEE Hilmy et al., 1979.
- El-Khashab, Baher
 1974. Review of the early Tertiary eutherian faunas of African mammals in Fayum Province, Egypt.
Ann. Geol. Surv. Egypt, 4: 95–114.
- Eldredge, L.G.
 1991. Annotated checklist of the marine mammals of Micronesia.
Micronesica, 24(2): 217–230.
 –Reviews reports of dugongs from Yap, Guam, and Palau (224–225).
- x Elias, Peter M.; Menon, Gopinathan K.; Grayson, Stephen; Brown, Barbara E.; & Rehfeld, S. Jerry
 1987. Avian sebokeratocytes and marine mammal lipokeratinocytes: structural, lipid biochemical, and functional considerations.
Amer. Jour. Anat., 180(2): 161–177. 5 tabs. 15 figs.
 –Birds, cetaceans, and manatees, in contrast to terrestrial mammals, were found to have abundant intracellular lipid droplets in the epidermis, but manatees (in contrast to cetaceans) lack these in the stratum corneum and resemble terrestrial mammals in replacing glycolipids with ceramides in the stratum corneum. The manatee studied is said to have been *T. manatus*, but because the sample was apparently obtained from the California Academy of Sciences, it may have been *T. inunguis*.

- Ellerman, John Reeves; & Morrison-Scott, T.C.S.
1951. *Checklist of Palaearctic and Indian mammals, 1758 to 1946*.
London, Trustees of the Brit. Mus., 1-810. 1 map.
-Synonymy of *Dugong dugon*, 337. In later eds.:
1953: 324; 1965: 337?
- Ellerman, John Reeves; Morrison-Scott, T.C.S.; & Hayman, R.W.
1953. *Southern African mammals, 1758-1951: a reclassification*.
London, Trustees of the Brit. Mus., 1-363. Maps.
- Elliot, Charles N. (ed.)
1943. *Fading trails: the story of endangered American wildlife*.
New York, Macmillan Co.
-Sirs., 88-97.
- x Elliott, Daniel Giraud
1901. A synopsis of the mammals of North America and the adjacent seas.
Publ. Field Columbian Mus., 45, Zool. Ser., 2: xv + 471. 94 figs. 49 pls. Mar. 6, 1901.
-Gives diagnoses and photographs of skulls of *Hydrodamalis gigas* (5, pl. 1) and *Manatus latirostris* (5-6, pl. 2). The same material is repeated on p. 477 in "A list of the land and sea mammals of North America north of Mexico, Supplement to the Synopsis," which follows the above on pp. 473-522.
- Elliott, Daniel Giraud
1904. The land and sea mammals of Middle America and the West Indies.
Publ. Field Columbian Mus., 95, Zool. Ser., 4(1): xxi + 439 + xlix. 140 figs. 41 pls. Aug. 2, 1904.
-Sirs., 35-37.
- Elliott, Daniel Giraud
1907. A catalogue of the collection of mammals in the Field Columbian Museum.
Publ. Field Columbian Mus., 115, Zool. Ser., 8: viii + 694. 92 figs.
-Lists (with synonymies) four *T. manatus* collected at Izabal, Guatemala, two from Florida, and one *Dugong australis* from Australia (29-30).
- x Elliott, Heather; Thomas, Annette; Ladds, P.W.; & Heinsohn, George Edwin
1981. A fatal case of salmonellosis in a dugong.
Jour. Wildl. Diseases, 17(2): 203-208. 3 figs. Apr. 1981.
-Describes the captive conditions, illness, and histopathology of the small intestine and liver of a female dugong calf that died at the Cairns Oceanarium, Australia, in 1978. *Pseudomonas*, *Streptococcus*, and *Salmonella lohbruegge* were isolated, with death ascribed to the latter.
- Elliott, Henry Wood
1881. *A monograph of the Pribylov Group, or the seal-islands of Alaska*.
Washington, Govt. Printing Off., 1-176. 29 pls. 14 maps.
-Quote from Nordenskiöld, 110-111.
- x Elliott, Murray A.
1981. Distribution and status of the dugong in Northern Territory waters. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8-13 May 1979* (q.v.).
[Townsville (Australia)], James Cook Univ. (vii + 400), 57-66. 1 fig.
-Aerial surveys of the Northern Territory coast of Australia showed that dugongs are widely distributed but not particularly abundant. Aboriginal hunting and incidental netting seem to have only minor impacts. More detailed studies are needed.
- Elliott, Murray A.; Marsh, Helene D.; Heinsohn, George Edwin; & Gardner, Blair R.
1979. Dugongs in the Northern Territory of Australia.
Environ. Conserv., 6(4): 277. 2 figs. Apr. 1979.
- Elsner, Robert
1969. Cardiovascular adjustments to diving. In: H.T. Andersen (ed.), *The biology of marine mammals*.
New York & London, Academic Press (475 pp.), 117-145. 25 figs.
-Sirs., 103?, 140-143.
- Emmons, Ebenezer
1858. Agriculture of the eastern counties; together with descriptions of the fossils of the marl beds. In: *Report of the North-Carolina Geological Survey*.
Raleigh, H.D. Turner, xvi + 314. >256 figs.
-Repr. in part, 1969, *Bulls. of Amer. Paleontology, 56(249)*: 57-230, with new index. Describes and illustrates a fragment of an Eocene sir. rib from Craven County, North Carolina, misidentifying it as a sperm whale tooth (212, fig. 34). This entire report, including the illustration, are reproduced in Domning, Morgan & Ray (1982: 16-17).
- Emmons, Ebenezer
1860. *Manual of geology, designed for the use of colleges and academies*.
Philadelphia, Sower, Barnes & Co., xii + 13-290. 218 figs.
-Reproduces (213, fig. 181) the illustration of the sir. rib fragment from Emmons (1858).
- Engbring, John: SEE Rathbun et al., 1988.
- x Engel, Stefan
1959a. Rudimentary mammalian lungs.
Gegenbaurs Morph. Jahrb., 100: 95-114. 19 figs.
-The alveolar structure of the dugong lung is

compared with those of crocodylians and monotremes; concludes that the dugong's structure is the most primitive among living mammals (102–104, 106, 111–114).

- x Engel, Stefan
1959b. The respiratory tissue of dugong (*Halicore Dugong*).
Anat. Anz., 106: 90–100. 14 figs.
–Reports that the lung tissue consists only of small, poorly differentiated vesicles, not of acini; these arise laterally from bronchioli. This is considered unique and perhaps primitive among mammals.
- x Engel, Stefan
1962. The air-passages of the dugong lung.
Acta Anat., 48(1–2): 95–107. 17 figs.
–Describes the histology and microscopic anatomy of the air-conducting tubules, which differ in arrangement from the typical mammalian bronchial tree.
- Engle, Earl Theron
1926. The copulation plug and the accessory genital glands of mammals.
Jour. Mamm., 7(2): 119–126. 1 tab. May 1926.
–Quotes Riha (1911) regarding the dugong (122).
- x Enlow, Donald H.; & Brown, Sidney O.
1958. A comparative histological study of fossil and recent bone tissues. Part III.
Texas Jour. Sci., 10(2): 187–230. Pls. 28–40. Jun. 1958.
–Comments on the fine structure of sirenian bone, represented by “The rib of an unidentified Pleistocene manatee” and the “Femur” (!) of a Pliocene “Manatee” (198–199, pl. 34). The source, true age, and true identity of these specimens are unknown.
- x Ennouchi, Emile
1954. Un sirénien, *Felsinotherium* cf. *serresi*, à Dar bel Hamri.
Serv. Géol. du Maroc, Notes et Mém., No. 121 (Notes, vol. 9): 77–82. 3 figs.
–Describes a skullcap fragment and a lower second molar from the Pliocene of Morocco. Also gives a gen. acc. of sirs., emphasizing their pelvic reduction and their phylogeny according to Depéret & Roman (1920).
- x Erdman, Donald S.
1970. Marine mammals from Puerto Rico to Antigua.
Jour. Mamm., 51(3): 636–639. Aug. 28, 1970.
–Reports two sighting records (1961, 1963) of *T. manatus* in Puerto Rican waters; the species is said to be absent from the Virgin Islands (638).
- x Erfteimeijer, Paul L.A.; Djunarlin; & Moka, Willem
1993. Stomach content analysis of a dugong (*Dugong dugon*) from South Sulawesi, Indonesia.
Austral. Jour. Mar. Freshwater Res., 44(1): 229–233. 1 tab. 1 fig.
–Most of the stomach contents of a female dugong (71.5% of the total dry weight) consisted of roots and rhizomes of small seagrasses (*Halophila*, *Halodule*, *Cymodocea*), but the leaf fraction was dominated by *Enhalus* (50%). Rhizome material of large seagrasses (*Enhalus*, *Thalassia*) was absent; sediment was negligible.
- Ernst, Adolf
1877. *Estudios sobre la flora y fauna de Venezuela*. Caracas, Imprenta Federal, 211–330.
- Ernst, Carl H.
1977. Skull key to adult mammals of Delaware, Maryland and Virginia. II. Marine mammals.
Chesapeake Science, 18(1): 84–87. 3 figs. Mar. 1977.
–Includes *T. manatus* in the key (84, 86).
- Erxleben, Johann Christian Polycarp
1777. *Systema regni animalis per classes, ordines, genera, species, varietates cum synonymia et historia animalivm. Classis I Mammalia*. Lipsiae [= Leipzig], Impensis Weygandianis, xlviii + 636.
–Allen 341. Recognizes *Trichechus manatus* (including all manatees plus *Hydrodamalis*), 596–599; *T. Dugung*, 599; and “The Sea Ape,” 600. Gives extensive lists of pre-Linnaean and vernacular names for these forms.
- Eschmeyer, Paul H.: SEE Scott & Eschmeyer, 1981.
- Espasandín, J. Otero
1945. *Gigantes marinos*. Ed. 2. Buenos Aires, Editorial Atlantida, S.A. (Colección Oro de Cultura General No. 6), 1–162. Illus. Jul. 20, 1945.
–Gen. acc. of the living sirs. (33–42).
- Esquemeling, John: SEE Exquemelin, Alexandre Olivier.
- Essman, Richard A.: SEE Bazzini et al.
- x Estacio da Silveira, Simão
1874. Relação summaria das cousas do Maranhão. In: Cândido Mendes de Almeida, *Memorias para a historia do extinto Estado do Maranhão cujo territorio comprehende hoje as provincias do Maranhão, Piauhly, Grão-Pará e Amazonas...* Tomo Segundo. Rio de Janeiro, Nova Typogr. de J. Paulo Hildebrandt (lxxii + 556 + viii), 1–31.
–Brief account of the use of manatees for food and the medicinal use of their bones (26–27). Acuña's account of the manatee is reprinted in the same volume (84–85; not indexed here).
- Estes, James A.: SEE ALSO Simenstad et al., 1978.

- x D Estes, James A.; & Steinberg, Peter D.
1988. Predation, herbivory, and kelp evolution. *Paleobiology*, 14(1): 19–36. 1 tab. 1 fig. Winter 1988.
–Briefly reviews the history of North Pacific sirs. and desmostylians, arguing that the Late Miocene appearance of sirs. adapted to kelp-eating supports the hypothesis that kelps did not become abundant or diverse until that time (21–22). See also Domning (1989a).
- x D Estes, James A.; & Steinberg, Peter D.
1989. Response to Domning [1989a]. *Paleobiology*, 15(1): 57–60. “Winter 1989” (mailed Jun. 13, 1989).
–Defends a late Cenozoic date for the adaptive radiation of kelps, and points out limitations on the likely roles of sirs. and desmostylians as kelp herbivores.
- Estrada, Alberto R.: SEE ALSO Ferrer & Estrada, 1988.
- x Estrada, Alberto R.; & Ferrer, Lourdes T.
1987. Distribución del manatí antillano, *Trichechus manatus* (Mammalia: Sirenia), en Cuba. I. Región occidental. *Poeyana* (Inst. Zool. Acad. Cienc. Cuba), No. 354: 1–12. 4 tabs. 2 figs. Apr. 24, 1987.
–Engl. summ. A questionnaire survey of fishermen identified several areas in western Cuba where manatees were abundant, having seemingly increased in numbers as a result of the prohibition of hunting. Their habits and habitats resemble those reported elsewhere in the Caribbean.
- x Etheridge, Kay; Rathbun, Galen B.; Powell, James Arthur, Jr.; & Kochman, Howard I.
1985. Consumption of aquatic plants by the West Indian manatee. *Jour. Aquatic Plant Manage.*, 23(1): 21–25. 6 tabs.
–Feeding experiments (using *Hydrilla* and *Valisneria*) and measurements of chewing rates in wild and captive Florida manatees indicated that adults can eat about 7.1% of body weight per day in wet weight of *Hydrilla* in 5 hours of chewing time. At this rate the manatees wintering at Crystal River fall short of controlling the growth of *Hydrilla* there by at least an order of magnitude, and manatees in general appear inefficient and impractical as a means of aquatic weed control.
- Etheridge, R., Jr.
1900. Curator’s report for 1899. *Australian Mus. (Rept. Trustees)*, 1899: 3–7 (Appendix 1).
–Records the donation of fossil vertebrae of *Halicore dugong* from “the Gold-bearing drift” on Woodlark Is., Papua New Guinea (7; also 24).
Molnar (1982: 680) gives the catalog number of this material as AM F5795.
- x Etheridge, R., Jr.
1905. The further discovery of dugong bones on the coast of New South Wales. *Rec. Austral. Mus.*, 6: 17–19. Pl. 4.
–Summarizes occurrences of dugongs in New South Wales, including finds in Aboriginal kitchen middens.
- x Etheridge, R., Jr.; David, T.W. Edgeworth; & Grimshaw, J.W.
1897. On the occurrence of a submerged forest, with remains of the dugong, at Shea’s Creek, near Sydney. *Jour. Proc. Roy. Soc. New South Wales*, 30: 158–185. Pls. 8–11 + 10A & 11A. Read Aug. 5, 1896.
–Describes a partial dugong skeleton, showing marks of butchering, found in Quaternary deposits in a canal excavation (170–174, 178–180, pls. 8–11A). Discusses the occurrence of dugongs in New South Wales and mentions one caught in Broken Bay ca. 1894 (172).
- Evans, Clifford: SEE Meggers & Evans, 1957.
- Evans, Peter G.H.: SEE Frazier et al., 1987.
- Evans, William E.
1967. Vocalization among marine mammals. In: W.N. Tavolga (ed.), *Marine bio-acoustics. Vol. 2. Proceedings of the Second Symposium on Marine Bio-Acoustics held at the American Museum of Natural History, New York, April 13–15, 1966.* Oxford, Pergamon Press (xxi + 353), 159–186. 1 tab. 12 figs.
–Manatee vocalizations, 159, 161, 169 (based on Schevill & Watkins, 1965).
- Evans, William E.; & Bastian, Jarvis
1969. Marine mammal communication: social and ecological factors. In: H.T. Andersen (ed.), *The biology of marine mammals.* New York & London, Academic Press (475 pp.), 425–475. 18 figs.
–Sirs., 443–444, 465–466.
- x Evans, William E.; & Herald, Earl S.
1970. Underwater calls of a captive Amazon manatee, *Trichechus inunguis*. *Jour. Mamm.*, 51(4): 820–823. 3 figs. Nov. 1970.
–Compares sound spectrographs of the manatee at Steinhart Aquarium, San Francisco, with reports of Florida manatee vocalizations.
- x Evermann, Barton Warren
1893. A skeleton of Steller’s sea cow. *Science*, 21(522): 59. Feb. 3, 1893.
–Brief account of the collection of a skeleton for the U.S. National Museum on Bering Island in

1892. See also L. Stejneger (1893).
- x Evermann, Barton Warren
 1900. General report on the investigations in Porto Rico of the United States Fish Commission steamer Fish Hawk in 1899.
Bull. U.S. Fish Comm., 20: 1-26.
 -P. 25: {"The only marine mammal known from Porto Rico is the manatee (probably *Trichechus latirostris*), and it is of very rare occurrence, owing no doubt, to the absence of broad sluggish rivers in which it finds its favorite environment."}
- Evermann, Barton Warren
 1920. [Title?]
Bull. Scripps Inst. Biol. Res., 9: 30.
 -Note on the discovery and extermination of Steller's sea cow.
- x Evermann, Barton Warren
 1922. Why not save the marine mammals of the Pacific?
Bull. Pan-Pacific Union (n.s.), No. 34: 12-16. Aug. 1922.
 -"An advance paper prepared for the First Pan-Pacific Commercial Conference." Briefly recounts and deplors the extermination of Steller's sea cow (15-16).
- Ewel, Katherine Carter: SEE Lomolino & Ewel, 1984.
- Exner, R.; & Routil, R.
 1958. Die Kephalisation der Wirbeltiere.
Ann. Naturhist. Mus. Wien, 62: 25-56.
 -Describes a new endocast of *Hydrodamalis* having a volume of 1700 cc (54).
- Exquemelin, Alexandre Olivier ("John Esquemeling")
 1678. *De Americaensche Zee Roovers. Behelsende een pertinente en waerachtige Beschrijving van alle de voornaemste Roveryen, en onmenschlijke wreedheden, die de Engelse en Franse Rovers, tegens de Spanjaerden in America, gepleeght hebben. Verdeelt in drie deelen: Het Eerste Deel verhandelt hoe de Franse op Hispanjola gekomen zijn, de aerdt van 't Landt, Inwoonders, en hun manier van leven aldaer. Het Tweede Deel, de opkomst van de Rovers, hun regel en leven onder malkander, nevens verscheyde Roveryen aen de Spanjaerden gepleeght. Het Derde 't verbranden van der Stadt Panama, door d'Engelsche en Franse Rovers gedaen, nevens het geen de Schrijver op zijn Reys voorgevallen is. Hier achter is bygevoeght, een korte verhandeling van de Macht en Rijkdommen die de Koninck van Spanje, Karel de Tweede, in America heeft, nevens des selfs Inkomsten en Regering aldaer. Als mede een kort begriip van alle de voornaemste Plaetsen in het selve Gewest, onder Christen Potentaten behoorende.*
 Amsterdam, Jan ten Hoorn, 1-186. 4 portraits. 6 pls. 2 maps.
 -Allen 114; title and the following comment from J. Sabin, *Bibliotheca Americana*, no. 23468: "First edition, of extreme rarity. Perhaps no book in any language was ever the parent of so many imitations, and the source of so many fictions, as this, the original of the buccaneers of America.... 'There is certainly no other book of that time which experienced a popularity similar to that of the "Buccaniers of America," which was, in the ten years following its publication, translated into most of the European languages; and there is a fact most curious in the literary history of all times, that the original was certainly unknown to all translators but one. They were all inclined to take the Spanish edition for the original; nay, even the learned editors of Mr. Grenville's catalogue seem doubtful whether the Dutch edition existed in print, or in MS. only.'"

Later eds.: German, Nürnberg, 1679; Dutch, Amsterdam, 1700 ("very much altered"); Spanish, 1681 ("translated from the [first] Dutch") and later eds.; French, Paris, 1686 (2 vols., "of extreme rarity," "from the English") and (by the same publishers) 1688; three English versions (one said to be an abridgement), transl. from the Spanish, appeared in 1684; etc. See also those cited below. In the first and subsequent Engl. eds., the author's name appears as "John Esquemeling." An 1893 ed. (London, Swan Sonnenschein & Co.) was republished (New York, Dover) in 1967. The U.S. Naval Institute (Annapolis, Md.) brought out a new ed. in 1993.

Material on manatees is found on the following pages in these eds.: Spanish, 1681: 294-295; Spanish, 1682: 438-440; Dutch, 1700: Deel 1, 131-132; Engl., 1704: 160-162; Engl., 1771: vol. 1, 209-210; Engl., 1893 & 1967: 243-244 (the reference to "manitas" on p. 250 should perhaps also read "manatis"). None of these eds. includes a figure of the animal. The accounts of the manatee in the 1744 and 1774 French eds. (see below) are entirely different from those in the Spanish, Dutch, and Engl. eds. just cited; besides being twice as long, and containing much new matter, there is an (apparently) original figure.

Exquemelin, Alexandre Olivier ("Oexmelin")
 1744. *Histoire des aventuriers fibustiers qui se sont signalez dans les Indes. Contenant ce qu'ils y ont fait de remarquable, avec la vie, les moeurs & les*

coutumes des boucaniers, & des habitans de S. Domingue & de la Tortue; une description exacte de ces lieux; et un etat des offices tant ecclésiastiques que séculières, & ce que les plus grandes princes de l'Europe y possèdent. Le tout enrichi de cartes géographiques & de figures en taille-douce.... Nouvelle édition corrigée & augmentée de l'histoire des pirates anglois depuis leur établissement dans l'Isle de la Providence jusqu'à présent.

Trevoux, par la Compagnie (4 vols.), Vol. 1: 1–394. Pls. 1 map.

–Allen 227. The engraved title page is dated 1743. Anatomie du Lamentin, 372–376, 1 fig. Allen says “This is an original account (at least written in the first person and evidently from observation) of the external characters and internal structure of

the Manatee, its habits, capture, etc., with an (apparently) original figure. The figure, like Labat's, represents an old Manatee with a young one in her arms; the figure is more artistic than Labat's, and has the head of the young one directed forward instead of backward.” The plate facing p. 373 also gives a figure of a manatee, together with three forms of harpoon used in capturing turtles and manatees. The material not included in earlier eds. (see Exquemelin, 1678) was apparently added by the translator from one or more of the sources mentioned by him in his preface.

A later French ed. (Lyon, Benoit, & Joseph Duplain, 1774 [4 vols.]; Allen 329) is textually the same as the above, and likewise has the manatee material in vol. 1: 372–376.

F

- Fabian, H.
1933. Merkmale und Grenzen in der Domestikationsfrage am Gebiss.
Deutsch. Zahnheilkunde, 84: [pp.?]

x Fabricius, Otho
1780. *Fauna Groenlandica, systematice sistens Animalia Groenlandiae occidentalis hactenus indagata, quoad nomen specificum, triviale, vernaculumque; synonyma auctorum plurium, descriptionem, locum, victum, generationum, mores, usum, capturamque singuli, prout detegendi occasio fuit, maximaque parte secundum proprias observationes...*
Hafniae et Lipsiae [= Copenhagen & Leipzig], Impensis Ioanis Gottlob Rothe, xvi + 452. 1 pl.
–Allen 356. Reports a partial cranium of “*Trichechus manatus*” from Greenland (6). The natives applied the name *Auvekaejak* to both this animal and “*Phoca ursina*”; Fabricius took it to be identical with the species described by Steller. It may, however, actually have been *T. manatus*; see Domning (1978b: 138).

x Fairbairn, P.W.; & Haynes, Ann M.
1982. Jamaican surveys of the West Indian manatee (*Trichechus manatus*), dolphin (*Tursiops truncatus*), sea turtles (Families Cheloniidae and Dermochelyidae), and booby terns (Family Laridae). *U.N. Food & Agric. Organization Fisheries Rept.*, No. 278: 289–295.
–Monthly aerial surveys, 1981–1982, showed manatees to be concentrated mainly on the south coast of Jamaica west of Kingston. A maximum of 13 individuals per month was counted.

x Fairchild, David
1917. A new food mammal.
Jour. Heredity, 8(8): 338–345. 5 figs.
–Rev.: *Bull. Pan-Amer. Union*, 45: 241–246, Aug. 1917. Published anonymously. Gen. acc. of sirs. and of legends and sightings of mermaids; discusses economic uses of sirs., particularly the Florida manatee. The idea of domesticating manatees, “which is first expressed in this article,” is credited to Alexander Graham Bell, who is quoted on pp. 342–343 and who instigated the author’s study of the possibilities. Manatee domestication is considered preferable to the introduction of pygmy hippopotamuses into swamps of the southern U.S., as had been previously suggested. The yield of saleable meat per manatee carcass is estimated at 85%. A chemical analysis of manatee grass (“*Cymodocea manatorum*”) is presented for comparison with four common kinds of animal fodder; it is found to be “almost identical chemically” to cow pea.

x Fairholme, J.K.E.
1857. On the Australian dugong (*Halicore australis*). *Proc. Zool. Soc. London*, 24: 352–353. May 8, 1857.
–Account of dugongs, dugong hunting, and use of the meat, blubber, and oil at Moreton Bay, Queensland.

x Faithful, Paul
1882. *A “treasure of the deep,” or the Halicore Australis, with personal reminiscences of submarine squatting in Queensland.* Nelson (New Zealand), Courtenay Smith, 1–16.
–May also exist in an earlier (1862) ed. (see E. Thorne, 1876: 251). A sprightly and entertaining account of a visit to Moreton Bay, Queensland, by a professional collector of natural history specimens, in which he relates his first encounter with the dugong (over 30 skeletons of which he later collected for various museums). Following several lengthy quotes from other writers describing the animal and its economic uses (5–7), he elaborately extols the virtues (especially the medicinal ones) of its meat, oil, and other products, and gives an informal description of the commercial dugong fishery operated by John Lionel Ching, including some details of how the oil was rendered and refined (13). Courtenay Smith just happened to be “sole consignee in New Zealand” for “Ching’s Pure Dugong Oil” (10), and he published this charming little pamphlet essentially to promote this and other items (described here in six full-page advertisements) that he purveyed.

x Falconer, Hugh
1868. On the fossil remains of *Elephas melitensis*, an extinct pigmy species of elephant; and of other Mammalia, &c. from the ossiferous caves of Malta. In: Charles Murchison (ed.), *Palaeontological memoirs and notes of the late Hugh Falconer...* London, Robert Hardwicke (2 vols.), Vol. 2 (xiii + 675): 292–308. Pls. 11–14.

- In Appendix II of this article (“Extracts from Dr. Falconer’s Note-Books,” 301–307), item No. 6 (“Fossil Halitherium, from Malta,” 304) consists of Falconer’s notes written in the British Museum, Dec. 20, 1862. He found that a set of 3 teeth from Malta compare closely with *Halitherium* and not with the suid *Listriodon*. The editor adds that “This fossil was not obtained from the caves. It was purchased for Capt. Spratt from a collector, and was probably obtained from the Miocene deposits of Malta.” See A.L. Adams (1879) for further discussion of this specimen.
- x Farge, Émile
1871. Sur un fragment d’os d’*Halitherium* portant des traces d’incisions.
Bull. Soc. Géol. France, (2)28: 265–268. Pl. 2. Read Sep. 7, 1871.
–Describes a radius-ulna fragment with scars of shark teeth, and reports other occurrences of such scars on “*Halitherium*” bones from the Middle Miocene of France. At that time it was thought possible that such scars might be the work of humans, but Farge, although not ruling this out, considers the shark hypothesis the most likely one.
- x Farge, Émile
1872. Présentation d’un os d’*halithérium* incisé, des faluns de Chavagnes (Maine-et-Loire).
Bull. Soc. Anthropol. Paris, (2)6: 412–416. Read Dec. 21, 1871.
–Text slightly abbreviated from Farge (1871), with some comments of members of the audience appended.
- Faria, João Barbosa de: SEE Rondon & Faria, 1948.
- x Farmer, Martha; & Bonaventura, Joseph
1977. Functional properties of the hemoglobin of the Amazonian manatee *Trichechus inunguis*. [Abstr.]
Amer. Zool., 17(4): 916. Fall 1977.
–Abstr. of Farmer et al. (1979a).
- x Farmer, Martha; Weber, Roy E.; Bonaventura, Joseph; Best, Robin Christopher; & Domning, Daryl Paul
1979a. Functional properties of hemoglobin and whole blood in an aquatic mammal, the Amazonian manatee (*Trichechus inunguis*).
Comp. Biochem. Physiol., 62A: 231–238. 6 figs.
–Abstr.: Farmer & Bonaventura, 1977. Portuguese transl.: Farmer et al. (1979b). Reports that the blood has a low hematocrit and oxygen capacity compared to that of other diving mammals; the hemoglobin has low sensitivity to temperature, tends to dissociate into dimers, and has other exceptional characteristics.
- n Farmer, Martha; Weber, Roy E.; Bonaventura, Joseph; Best, Robin Christopher; & Domning, Daryl Paul
1979b. Propriedades funcionais de hemoglobina e sangue completo em um mamífero aquático, o peixe-boi amazônico (*Trichechus inunguis*).
Acta Amazonica, 8(4), Supl.: 311–321. 6 figs. Dec. 1978 (publ. 1979).
–Engl. summ. Portuguese transl. of Farmer et al. (1979a).
- Farrés, F.
1961. Enumeración de les especies halladas en el Eoceno de la comarca de Vich.
Ausa (Vich, Spain), No. 36: 3–28.
–Reports “*Halitherium* sp.” at five Eocene localities (Taradell, Sant Julià de Vilatorrada, Puiglagulla, Seva, and Roda de Ter).
- Farrés, F.
1962. Historia de Taradell por el Dr. Miguel A. Saurina, pbro. Revisión de algunos datos geológicos.
Ausa (Vich, Spain), No. 39: 3–8.
–Mentions a vertebra and rib of “*Halitherium* sp.” from the Eocene of Taradell.
- Farrés, F.; & Ramirez, R.
1959. Un sirènit fòssil a Taradell.
Taradell, No. 134.
–Reports Eocene remains of “*Halitherium* sp.” from Spain.
- Farrington, Sandra L.: SEE Whitfield & Farrington, 1975.
- Faulkner, Douglas
1983. Sunday divers.
Oceans, 16(6): 25–31. 7 figs. Nov.–Dec. 1983.
–Pop. acc. of diving with manatees at Crystal River, Florida (25; photo of manatee, 26–27).
- Faulkner, Douglas
199?. In innocence.
Ocean Realm [vol.?]: 64–? Illus.
- Fauvel, Albert Auguste
1909. *Unpublished documents on the history of the Seychelles Islands anterior to 1810, together with a cartography enumerating 94 ancient maps and plans dating from 1501... and a bibliography of books and mss. concerning these islands.*
Mahé (Seychelles), Govt. Printing Off., xxxi + 517 + 5. Atlas.
- x Fawcett, Don Wayne
1942a. A comparative study of blood-vascular bundles in the Florida manatee (*Trichechus latirostris*) and in certain cetaceans and edentates.
Jour. Morph., 71(1): 105–133. 4 pls. Jul. 1, 1942.
–Describes the structure of vascular bundles and their distribution in the body; speculates on their functions.
- x Fawcett, Don Wayne
1942b. The amedullary bones of the Florida manatee

(*Trichechus latirostris*).

Amer. Jour. Anat., 71(2): 271–309. 1 fig. 9 pls. Sep. 15, 1942.

–Abstr.: *Anat. Rec.*, 82(3): 410–411, Mar. 25, 1942. Describes the histology of the bones and thyroid gland; concludes that hypothyroidism may be the mechanism producing pachyostosis.

Fekete, Zoltán

1935. Adatok a hárshegyi homokkő geológiájához. Beiträge zur Geologie des oligozänen Sandsteins der Umgebung von Budapest.

Földt. Közlöny, 65(4–6): 126–150. Figs. 16–17. Apr.–Jun. 1935.

–In Hungarian; German summ. mentions *Hali-therium*, 144.

x Fenart, R.

1963. Note sur l'étude du crâne de *Halicore dugong* par la méthode vestibulaire.

Mammalia, 27(1): 92–98. 3 figs. Mar. 1963.

–Using the semicircular canals as reference points, the orientation of the skull is found to differ from that of most mammals chiefly in the anterior region of the face and mandible; the plane of the premaxillary masticating surface is almost vertical.

Fenchel, T.

1977. Aspects of the decomposition of seagrasses. In: C.P. McRoy & C. Helfferich (eds.), *Seagrass ecosystems: a scientific perspective*.

New York & Basel, Marcel Dekker, 123–145.

Ferguson, J.C.: SEE Reynolds & Ferguson, 1984.

x Feriz, Hans

1967. Über eine prähistorische Tonplastik von *Trichechus cf. inunguis* (Sirenia) vom oberen Amazonas.

Zs. Säugetierk., 32(6): 373–374. 3 figs.

–Describes a small clay model of the head of a manatee found near the Rio Japurá in northwestern Brazil.

Fermin, Philippe

1769. *Description générale, historique, géographique et physique de la colonie de Surinam, contenant ce qu'il y a de plus curieux & de plus remarquable, touchant sa situation, ses rivières, ses forteresses; son gouvernement & sa police; avec les moeurs & les usages des habitants naturels du pays, & des Européens qui y sont établis; ainsi que des éclaircissements sur l'oéconomie générale des esclaves negres, sur les plantations & leurs produits, les arbres fruitiers, les plantes médicinales, & toutes les diverses especes d'animaux qu'on y trouve, &c. Enrichie de figures, & d'une carte topographique du pays.*

Amsterdam, E. van Harrevelt (2 vols.), Vol. 1:

xxiv + 252. Map; Vol. 2: 1–352. 3 pls.

–Allen 308. Contains two pages (2: 122–124) on the “Veau marin,” which according to Allen are evidently a description of the common seal, but which also seem to confuse it with the manatee; the latter is otherwise not mentioned.

Fernand, V.S.V.: SEE ALSO Cruz & Femand, 1954.

x Fernand, V.S.V.

1951. The histology of the pituitary and the adrenal glands of the dugong (*Dugong Dugong*).

Ceylon Jour. Med. Sci. (D), 8(2): 57–62. Pls. 1–2. Jun. 1951.

–The dugong's pituitary is compared with those of *T. manatus* and *T. inunguis*; its adrenals are found to be small. Histochemical reactions are also discussed.

x Fernand, V.S.V.

1953. The teeth of the dugong.

Ceylon Jour. Sci. (B), 25(2): 139–147. Pls. 28–30. Oct. 10, 1953.

–Notes that five to six cheek teeth are present; the tusks are thought to “serve no useful purpose;” jaw movement is probably lateral; the enamel is simple; the dentine is tubular (orthodentine); and the cementum is lamellar. Also describes vestigial incisors and the distribution of enamel on the teeth.

x Fernandes, Aduauto de Alencar

1925. *Terra verde*.

Fortaleza (Brazil), Typ. Central, 1–322.

–Vivid account of harpooning pirarucu and manatee (263–267).

x Fernandez, Stephanie; & Jones, Sherman C.

1990. Manatee stranding on the coast of Texas.

Texas Jour. Sci., 42(1): 103. Feb. 1990.

–Reports a carcass of a male *T. manatus* washed ashore near Galveston in 1986; cause of death was undetermined.

Fernandez Badillo, A.; Guerrero, R.; Lord, R.; Ochoa, J.; & Ulloa, G.

1988. *Mamíferos en Venezuela. Lista y claves para su identificación*.

Maracay, Universidad Central de Venezuela, x + 185. Illus.

Fernando, A. Bastian: SEE Silas & Femando, 1985.

Ferrandini, M.: SEE Anglada et al., 1974.

Ferreira, Alexandre Rodriguez: SEE Rodriguez Ferreira, Alexandre.

Ferreira, L.C.: SEE Colares & Ferreira, 1987.

Ferrer, Lourdes T.: SEE ALSO Estrada & Ferrer, 1987.

Ferrer, Lourdes T.; & Estrada, Alberto R.

1988. Primer record de mortalidad del manati en aguas cubanas.

Misc. Zool. (Havana), No. 41: 1–2.

- Ferrusquia-Villafranca, Ismael
 1977. Distribution of Cenozoic vertebrate faunas in Middle America and problems of migration between North and South America. In: I. Ferrusquia-Villafranca (ed.), *Conexiones terrestres entre Norte y Sudamerica...*
Bol. Inst. Geol. Univ. Nac. Autón. México, No. 101: 193–321.
 –Spanish summ.
- x D Ferrusquia-Villafranca, Ismael
 1990. Biostratigraphy of the Mexican continental Miocene: Part I, introduction and the northwestern and central faunas.
Paleontologia Mexicana, No. 56: 7–53. 7 tabs. 10 figs. 2 pls.
 –Spanish summ. Describes a tooth fragment of *Desmostylus hesperus* from La Purísima (22–26), and mentions *Desmostylus* sp. at La Misión (15, 17), Baja California. The La Purísima occurrence is the southernmost known for *Desmostylus*.
- Feugueur, L.: SEE Cailleux & Feugueur, 1947.
- Fewkes, Jesse Walter
 1907. The aborigines of Porto Rico and the neighboring islands.
25th Ann. Rept. Bur. Amer. Ethnol., 1903–04, 3–220.
 –Manatees, 48–50, 192–193.
- Ficcarelli, Giovanni: SEE Azzaroli et al., 1982.
- x Fichter, George S.
 1958. Strange “cows” of the sea.
Sci. Digest, 43(1): 31–35. 1 fig. Jan. 1958.
 –Pop. acc. of Florida manatees.
- Figueiredo, Heitor de
 1913. *1913–1914 Anuario de Manaos*.
 Lisbon, Typ. da “A Editora Limitada,” 15 + 86 + 14 + 61 + 96 + 34.
 –Manatees, part 4, pp. 44–47, 50–51.
- x Filhol, Henri
 1878. Note sur la découverte d’un nouveau mammifère marin (*Manatus coulombi*) en Afrique, dans les carrières de Mokattam près du Caire.
Bull. Soc. Philomathique Paris, (7)2: 124–125. Read Mar. 23, 1878.
 –Describes a new Eocene species, based on 3 lower teeth. It is thought to resemble the modern manatee too closely to have belonged to a form as primitive as “*Eotherium aegyptiacum*.”
- x Finger, Jarvis
 1987. *More true tales of old St Helena*.
 Brisbane, Boolarong Publications. Illus.
 –Includes a chapter on “The dugong factory on St Helena Island,” briefly describing the early history of the dugong-oil industry in Queensland (3–5).
- Finn, Frank
 1929. *Sterndale’s Mammalia of India. A new and abridged edition, thoroughly revised and with an appendix on the Reptilia*.
 Calcutta & Simla, Thacker, Spink & Co.
 –Sirs., 133–134.
- Finnley, D. (ed.)
 1978a. West African manatee.
Endangered Species Tech. Bull. (U.S. Fish & Wildl. Serv.), 3(6): 9.
- Finnley, D. (ed.)
 1978b. Rare and endangered species broadly covered under Florida’s conservation plan.
Endangered Species Tech. Bull. (U.S. Fish & Wildl. Serv.), 3(11): 3, 5–6.
- Finnley, D. (ed.)
 1978c. Service steps up manatee recovery efforts.
Endangered Species Tech. Bull. (U.S. Fish & Wildl. Serv.), 3(11): 4.
- Finnley, D. (ed.)
 1979a. West African manatee threatened.
Endangered Species Tech. Bull. (U.S. Fish & Wildl. Serv.), 4(8): 6.
- Finnley, D. (ed.)
 1979b. Manatee protection areas authorized.
Endangered Species Tech. Bull. (U.S. Fish & Wildl. Serv.), 4(11): 4–5.
- Finnley, D. (ed.)
 1980. Regulations to benefit manatees on Merritt Island, Chassahowitzka.
Endangered Species Tech. Bull. (U.S. Fish & Wildl. Serv.), 5(2): 5. Illus.
- Finsch, Otto
 1901a. Der Dujong. Zoologisch-ethnographische Skizze einer untergehenden Sirene.
Samm. Gemeinverst. Wiss. Vortr. (Hamburg, Holtzendorff-Virchow), 359(= n.s. 15): 1–32.
- Finsch, Otto
 1901b. Der Dujong und sein Fang. Torresstrasse und Neuguinea.
Illus. Zeitung, No. 3012: m. 4 Ill.
- Fischer, Johann Baptist
 1829. *Synopsis mammalium*.
 Stuttgart, Sumtibus J. G. Cottae, xlii + 528.
 –Allen 741 (incl. *Addenda, Emendanda et Index*, 1830). Sirs., 501–504.
- x Fischer, Karlheinz
 1982. Wirbeltierfunde aus dem marinen Mitteloligozän des Weissesterbeckens (Bezirk Leipzig, DDR).
Wiss. Zs. Humboldt-Univ. Berlin, math.-nat. R., 31(3): 151–153.
 –Russian, Engl., & French summs. Discusses remains of *Halitherium schinzi* from the fauna, and concludes that they are not taxonomically

- distinct from the West German and Belgian specimens of the species.
- Fischer, Karlheinz; & Krumbiegel, Günter
1982. *Halitherium schinzi* Kaup 1838 (Sirenia, Mammalia) aus dem marinen Mitteloligozän des Weisselsterbeckens (Bezirk Leipzig, DDR). *Hallesches Jahrb. Geowiss.*, 7: 73–96. 2 tabs. 2 figs. 12 photos.
–Engl. & Russian summs.
- Fischer, Martin S.: SEE ALSO Prothero et al., 1988.
- Fischer, Martin S.
1986. Die Stellung der Schliefer (Hyracoidea) im phylogenetischen System der Eutheria. *Courier Forschungsinst. Senckenberg*, 84: 1–132. 2 tabs. 39 figs. Aug. 20, 1986.
- x Fischer, Martin S.
1988. Zur Anatomie des Gehörorgans der Seekuh (*Trichechus manatus* L.), (Mammalia: Sirenia). *Zs. Säugetierk.*, 53: 365–379. 6 figs.
–Engl. summ. Describes the soft parts of the ear region in specimens from Guyana and Florida. The external auditory meatus ends blindly and does not contact the tympanic membrane, which consists of unusual dense connective tissue. A large tympanic sac is present, but is part of the tympanic cavity and not homologous to the Eustachian sac of hyracoids and perissodactyls. Also discusses the functional anatomy of hearing in the manatee.
- Fischer, Martin S.
1990. Un trait unique de l'oreille des éléphants et des siréniens (Mammalia): un paradoxe phylogénétique. *C.R. Acad. Sci. Paris*, (3)311(4): 157–162. 2 figs. Aug. 16, 1990.
–Engl. summ.
- Fischer, Martin S.
1991. Zur Morphologie und Evolution des Gehörorgans der Tethytheria (Proboscidea, Sirenia). *Verh. Deutsch. Zool. Ges.*, 84: 377.
- Fischer, Martin S.; & Tassy, Pascal
1993. The interrelation between Proboscidea, Sirenia, Hyracoidea, and Mesaxonia: the morphological evidence. In: F.S. Szalay, M. J. Novacek, & M.C. McKenna (eds.), *Mammal phylogeny. Vol. 2. Placentals*. New York, Springer-Verlag (321 pp.), 217–234. 3 tabs. 8 figs.
- x Fischer, P.
1884. Cirrhipèdes de l'Archipel de la Nouvelle-Calédonie. *Bull. Soc. Zool. France*, 9(6): 355–360.
–Reports the barnacle *Platylepas bissexlobata* on a dugong from New Caledonia (359). Notes that the museum in Bordeaux has several dugong skeletons and skulls from New Caledonia, and that dugongs are not rare there.
- Fischer, P.H.
1959. *Les animaux d'Australie*. Paris, Payot, 1–268.
- Fischer, P.M.
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–Reports trematodes from the tympanic cavity of the Philippine dugong.
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–Discusses dugong distribution, population trends, uses, and legal protection (97–100).
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1974. Most endangered mammals—an action program. *Oryx*, 12(4): 443–444.
–Proposes reserves for *T. inunguis* in Peru and Brazil, and suggests a survey of the Orinoco River.
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1988. On the trail of the West African manatee.

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–Pop. acc. of James A. Powell's research project in Ivory Coast.
- Fitzgerald, Shannon M.: SEE Bengtson & Fitzgerald, 1985.
- Fitzinger, Leopold Joseph
1842. Bericht über die in dem Sandlagern von Linz aufgefundenen fossilen Reste eines urweltlichen Säugers, (*Halitherium Cristolii*).
Ber. Mus. Franc.-Carolinum Linz, 6: 61–72. 1 pl.
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–Reconstruction of *Hydrodamalis*, 6: 147, 161, fig. 238.
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1991. Home reef fisheries development: a report from Torres Strait.
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- x Fiuza Lima, Francisco
1967. *Criação de peixes e quelônios: cria e cria em lago natural*.
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–Prospectus for (unrealized) fish- and turtle-raising project to be established near Itacoatiara, Brazil. The account (17–18) of the manatee, suggested for inclusion in the scheme, features precisely stated but completely unsubstantiated data on its reproductive cycle.
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- Flanigan, W.F., Jr.: SEE Lowell & Flanigan, 1980.
- x Flannery, Tim
1988. Stuffed & pickled: treasures from the historic Australian Museum mammal collection.
Austral. Nat. Hist., 22(10): 458–462. 5 figs. Spring 1988.
–Calls attention to a partial skeleton of *Hydrodamalis gigas* from Bering Island in the Australian Museum, Sydney, received by exchange from Sweden in the 19th century (462).
- x Fleagle, John G.; Bown, Thomas M.; Obradovich, John D.; & Simons, Elwyn L.
1986. How old are the Fayum primates? In: J.G. Else & P.C. Lee (eds.), *Primate evolution (Proc. 10th Congr. Internatl. Primatol. Soc., Vol. 1)*. Cambridge Univ. Press, 1–17. 2 tabs. 3 figs.
–Mentions a sir. skull from the Early Oligocene Jebel Qatrani Formation, intermediate in morphology between *Eootheroides libycum* and *Halitherium schinzii* (8–9).
- x Fleischer, Gerald
1971. Über Schwingungsmessungen am Skelett des Mittelohres von *Halicore* (Sirenia).
Zs. Säugetierk., 36(6): 350–360. 6 figs. Dec. 1971.
–Engl. summ. Describes experiments demonstrating that the ossicular chain of the middle ear is well insulated from vibrations of the periotic and tympanic, and that its own vibrations are damped to 2–4 KHz.
- Fleischer, Gerald
1973. Studien am Skelett des Gehörorganes der Säugetiere, einschliesslich des Menschen.
Säugetierk. Mitt., 21(2–3): 131–239. 128 figs. Jul. 1973.
- x Fleischer, Gerald
1976. Über die Verankerung des Stapes im Ohr der Cetacea und Sirenia.
Zs. Säugetierk., 41(5): 304–317. 12 figs.
–Engl. summ. The attachment area of the ligament joining the stapes to the oval window was found to be small relative to the weight of the stapes in forms adapted to receive low frequencies (Sirenia and Mysticeti), in contrast to the Odontoceti.
- Fleischer, Gerald
1978. Evolutionary principles of the mammalian middle ear.
Advances Anat. Embryol. Cell Biol., 55(3): 1–70. Illus.
- Fleming, John
1822. *The philosophy of zoology; or a general view of the structure, functions, and classification of animals*.
Edinburgh, Archibald Constable & Co.; London, Hurst, Robinson & Co., 2 vols. (vol. 1: lii + 432, 5 pls.; vol. 2: 1–618).
–Recognizes a group called “Apoda,” comprising the “Herbivora” and “Cetacea”; none of these is

assigned an explicit rank. The "Herbivora" comprise *Manatus*, *Halicora* (unjustified emendation of *Halicore* Illiger), and *Rytina* (2:203–204). Repeats in a footnote Stewart's (1817) report of a manatee stranded in Scotland in 1785; see also the following item.

x Fleming, John

1828. *A history of British animals*.

Edinburgh, Bell & Bradfute; London, Duncan, xxiii + 565.

–Ed. 2 (London, Duncan & Malcolm, 1842) identical. Gives account of a "*Manatus borealis*" stranded at Newhaven, near Leith, Scotland, in 1785, *fide* Stewart, 1817 (29). Fleming confounds *Trichechus* and *Hydrodamalis* in his description, also mentioning Fabricius' specimen, but then goes on (30) to distinguish "*Manatus*" from "*Rytina*." Also recounts (30) the story of a "mermaid" captured in 1823; the source is cited as *Edinburgh Magazine*, Sep. 1823: 346, but the incident is evidently the same one described in Anon. (1829).

x Fletemeyer, John

1982. Blimps, blips and dredging.

Sea Frontiers, 28(5): 296–299. 4 figs. Sep.–Oct. 1982.

–Pop. acc. of the use of color-enhanced sonar for monitoring manatees near dredges at Port Everglades, Florida, in the winter of 1981–1982.

Florida Power and Light Company: SEE ALSO Fritz, D., 1980; Van Meter, Victoria Brook; Wilcox, J. Ross.

Florida Power and Light Company

1980. *Boaters' guide to manatees: the gentle giants. Featuring maps of manatee sanctuaries in Florida*.

Miami, Florida Power & Light Co., [2] + 18. 4 figs. 14 maps.

–Distributed free by the company as a public service. Ed. 1, 1 printing (50,000 copies, 1980). Ed. 2, 3 printings (22,000, 18,500, 1982; 20,000, 1983). Ed. 3, 4 printings (7,500, 15,000, 10,000, 1984; 10,000, 1985). Ed. 4, 1 printing (21,000, 1985). Ed. 5, 1 printing (15,000, 1986). Ed. 6, 1 printing (15,000, 1987). Ed. 7, 1 printing (25,000, 1988). Ed. 8, 1 printing (20,300, 1989). Total, 249,300 copies. Superseded by a set of maps published by Teall & Morrow.

Ed. 5: [3] + 29. 8 figs. 24 maps. Ed. 6: *Boaters' guide to manatees. Featuring maps of manatee protection zones in Florida*. [3] + 29. 8 figs. 25 maps.

Flot, Léon

1885a. Note sur l'*Halitherium schinzi*.

Bull. Soc. Géol. France, (3)13: 439–441. 1 fig.

Flot, Léon

1885b. [*Halitherium schinzi* from Montmorency, near Paris.]

Naturaliste, 3: 79.

Flot, Léon

1886. Description de *Halitherium fossile* Gervais.

Bull. Soc. Géol. France, (3)14: 483–518. Pls. 26–28.

–Describes the osteology of the Miocene species now known as *Metaxytherium medium*.

x Flot, Léon

1887. Note sur le *Prohalicore Dubaleni*.

Bull. Soc. Géol. France, (3)15: 134–138. Pl. 1. Read Nov. 8, 1886; publ. with proceedings of Dec. 6, 1886 (see p. 11).

–Describes *Prohalicore Dubaleni*, n.gen.n.sp., from the Helvetian (Miocene) "carrières d'Odon," near Tartas (Landes, France); it is thought to be ancestral to *Halicore* by way of *Felsinotherium*. Briefly reviews other fossil sirs.; *Rhytina* is phyletically derived from *Crassitherium*, manatees and dugongs from *Halitherium*. *Metaxytherium Lovisati* is thought synonymous with *Halitherium fossile*. Also illustrates (138, pl. 1, fig. 7) a putative "new species" of *Halitherium* represented by two upper molars from the "Calcaire Grossier de Bazas (?)," a Lutetian (Middle Eocene) deposit.

Flower, Stanley Smyth

1932. Notes on the Recent mammals of Egypt, with a list of the species recorded from that kingdom.

Proc. Zool. Soc. London, 1932(2): 369–450. 2 tabs. Jul. 8, 1932 (read Mar. 15, 1932).

–Reports that dugongs are rare on the Red Sea coast, and never found farther north than 25° N (445).

Flower, William Henry

1864. Note on the number of the cervical vertebrae in the Sirenia.

Nat. Hist. Rev. (n.s.), 4: 259–264.

Flower, William Henry

1870. *An introduction to the osteology of the Mammalia: being the substance of the course of lectures delivered at the Royal College of Surgeons of England in 1870*.

London, Macmillan & Co., xi + 344. Illus.

x Flower, William Henry

1874. Description of the skull of a species of *Halitherium* (*H. canhami*) from the Red Crag of Suffolk.

Quart. Jour. Geol. Soc. London, 30: 1–7. Pl. 1.

–Abstr.: *Nature* (London), 9: 13, 1873? Description and discussion of *H. canhami*, n.sp., the first

- known fossil sirenian from England.
- Flower, William Henry
1876. Hunterian lectures on the relations of extinct to existing Mammalia. [?Part 5: Sirenia.] *Nature* (London), 13: 409–410.
- x Flower, William Henry
1881. Notes on the habits of the manatee. *Proc. Zool. Soc. London*, 1881(2): 453–456. Aug. 1881 (read Apr. 5, 1881).
–Reviews literature on terrestrial locomotion by sirs. and expresses disbelief. Quotes accounts of the trapping of manatees on land in West Africa, and of a native society requiring capture of a manatee for admission. Accompanied by Crane's (1881) description of two captive manatees at Brighton.
- x Flower, William Henry
1884. On the arrangement of the orders and families of existing Mammalia. *Proc. Zool. Soc. London*, 1883(2): 178–186. Read Apr. 17, 1883.
–Considers sirs. not closely related to any other order (181); recognizes two families, Manatidae and Halicoridae (184).
- Flower, William Henry
1885. *An introduction to the osteology of the Mammalia*. Ed. 3 (revised with the assistance of Hans Gadow). London, Macmillan & Co., xi + 382. 134 figs.
–German ed.: Leipzig, Engelmann, 1888.
- Flower, William Henry; & Garson, J.G.
1884. *Catalogue of the specimens illustrating the osteology and dentition of vertebrated animals, Recent and extinct, contained in the Museum of the Royal College of Surgeons of England.... Part II. Class Mammalia, other than man*. London, J. & A. Churchill (3 vols., 1884–1907), Vol. 2: xliii + 779.
–Reports rib and vertebra fragments of Eocene "Halitherium" from Sanderville [= Sandersville], Georgia, presented by Sir Charles Lyell in 1868 (527). These specimens were apparently destroyed in World War II (Domning, Morgan, & Ray, 1982: 12).
- x Flower, William Henry; & Lydekker, Richard
1891. *An introduction to the study of mammals, living and extinct*. London, Adam & Charles Black, xvi + 763. 357 figs.
–General survey of the habits and anatomy of Recent and fossil sirs. (212–225).
- xD Floyd, D.N.; Miller, Theophile H.; & Berry, William B.N.
1958. Miocene paleoecology in the Burkeville area, Newton County, Texas. *Trans. Gulf Coast Assoc. Geol. Socs.*, 8: 157–165. 2 pls. Oct. 1958.
–Reports "teeth of a sea cow and a ray and some bone fragments of turtles, catfish, and bony pikes ... associated with the valves of *Ostrea normalis* ... Sea cows and rays lived near the oysters and fed on them" (160–161). This Late Miocene "sea cow" was the "?*Desmostylus*" reported by Stenzel et al. (1944). Reinhart (1976: 286–287) identified the tooth fragments as proboscidean.
- x Fondi, R.; & Pacini, P.
1974. Nuovi resti di sirenide dal Pliocene antico della Provincia di Siena. *Palaeontogr. Ital.*, 67(= n.s. 37): 37–53. 1 fig. Pls. 43–46.
–Describes new material of *Metaxytherium forestii*; synonymizes *Felsinotherium* with *Metaxytherium*; refers Ennouchi's (1954) specimen to *M. forestii*; concludes that this species was contemporaneous with *M. serresii*; and reports a scar possibly made by a shark tooth on an ulna of *M. forestii*.
- Font i Sagué, N.
1926. *Curs de geologica dinámica i estratigráfica aplicada a Catalunya*. Ed. 2. Barcelona.
–Sirs., 316.
- Fontaneda, Hemando de Escalante
1854. Memoria de las cosas y costa y Indios de la Florida. In: Buckingham Smith (translator), *Letter of Hernando de Soto, and memoir of Hernando de Escalante Fontaneda*. Washington, privately printed, 1–67. 1 map.
–Other eds.: Documentos Inéditos, 5: 532–548, Madrid, 1866; French transl. in Ternaux-Compans, *Voyages*, 20: 9–42, Paris, 1841. Written circa 1575.
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- Food and Agriculture Organization of the United Nations (F.A.O.), Advisory Committee on Marine Resources Research
1978–1982. *Mammals in the seas*. Rome, F.A.O., 4 vols.
–For sir. material, see especially vol. 1: 6, 136–138, 184 (1978); vol. 2: 137–151 (1979); vol. 4: 511–524 (1982). The material in vol. 4 is cited here as Ligon (1982) and Barnett & Johns (1982).
- Ford, Corey
1966. *Where the sea breaks its back: the epic story of a pioneer naturalist and the discovery of Alaska*. Boston & Toronto, Little, Brown & Co., x + 206.
–Bering's 1741 voyage and Steller's discovery of

the sea cow.

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1985. Marine mammal evolution in the southwest Pacific. [Abstr.] In: R. Cooper (ed.), Hornibrook Symposium. Extended abstracts. *Rec. New Zealand Geol. Surv.*, 9: 47–49.
- Forrester, Donald J.: SEE ALSO Beck & Forrester, 1988; Cardeilhac et al., 1981; Dailey et al., 1988; Odell et al., 1981.
- Forrester, Donald J.
1992. *Parasites and diseases of wild mammals in Florida*. Gainesville, Univ. Press of Florida, 1–479. Tabs. 91 figs.
- x Forrester, Donald J.; Black, D.J.; Odell, Daniel Keith; Reynolds, John E., III; Beck, Cathy A.; & Bonde, Robert K.
1979. Parasites of manatees. [Abstr.] *Abstrs. 10th Ann. Conf. & Workshop, Internat. Assoc. Aquat. Animal Medicine* (St. Augustine, Fla., Apr. 22–26, 1979): 5.
–Reports *Opisthotrema cochleotrema*, *Chiorchis fabaceus*, *Plicatolabia hagenbecki*, and Microphallidae spp. from 48 Florida manatees stranded between Oct. 1974 and Feb. 1979.
- x Forrester, Donald J.; White, Franklin H.; Woodard, J.C.; & Thompson, N.P.
1975. Intussusception in a Florida manatee. *Jour. Wildl. Diseases*, 11(4): 566–568. Oct. 1975.
–Reports pathological findings on a manatee that died from ingesting a fishhook and line; includes bacteriological and pesticide residue analyses and data on distribution of *Chiorchis fabaceus* in the gut.
- Forsten, Ann; & Youngman, Phillip M.
1982. *Hydrodamalis gigas*. *Mamm. Species* (Amer. Soc. Mammalogists), No. 165: 1–3. 2 figs. May 25, 1982.
- Forster, Johann Reinhold: SEE ALSO Beniowski, M.A. von, 1790.
- Forster, Johann Reinhold
1795. *Faunula Indica id est Catalogus animalium Indiae Orientalis quae hactenus naturae curiosis innotuerunt; concinnatus a Joanne Latham ... et Hugone Davies....* Halae ad Salam (= Halle an der Saale), impensis Joannis Jacobi Gebaueri, 1–38.
–Allen 437. Engl. transl. in T. Pennant (ed.), *Indian Zoology*, ed. 2, London, R.T. Faulder, 1790. Lists *Trichechus Manatus* and *Trichechus Dugong* in the order Cete (5).
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–Discusses the functional significance of some aspects of tooth replacement and tooth structure in *Trichechus*, *Dugong*, and *Desmostylus* (11, 52–53, 57, 65, 73).
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–Briefly discusses *Dugong dugon tabernaculi* and considers it “extremely rare” in the Red Sea (503).
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1914. *The River Amazon from its sources to the sea*. London, Constable & Co., xi + 321.
–Brief account of manatees in the Amazon basin (302–304).
- Fowler, M.F. (ed.)
1978. *Zoo and wildlife medicine*. Philadelphia, W.B. Saunders Co.
–Ed. 2: see Geraci (1986), Medway & Geraci (1986). *Sirs.*, 550–604.
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1989. Crystal River’s gentle giants. *Aquatics*, 11(2): 16, 18. Illus.
- Fox, Rodney
1991. The sea beyond the outback. *Natl. Geogr.*, 179(1): 42–73. Illus. Jan. 1991.
–Brief pop. acc. of dugongs at Shark Bay, Australia, with one underwater photo (48, 55–56).
- Fraas, Eberhard
1904. Neue Zeuglodonten aus dem unteren Mitteleocän vom Mokattam bei Cairo. *Geol. Pal. Abh.*, (2)6(whole no. 10?): 197–220. 3 pls.
–Repr.: *Mitt. Nat.-Kab. Stuttgart*, 27: 1–24, 3 pls.? Abstrs.: *Geol. Zentralbl.*, 5: 374?; *Jahresber. Anat. Entwickl.*, (2)10(3): 185–186?; *Jour. Geol.*, 17: 183? Review: *Nature* (London), 70: 543–544?
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1905. Reptilien und Säugetiere in ihren Anpassungserscheinungen an das marine Leben. *Jahresh. Ver. Naturk. Württemberg*, 61: 347–386. 5 figs.
–Abstrs.: *Ann. Soc. Zool. Belgique*, 40: xcvi–cxvi?; *Jahresber. Anat. Entwickl.*, (2)11(3): 155? *Sirs.*, 378.
- Fraas, Oscar
1867. *Aus dem Orient. Geologische Beobachtungen am Nil, auf der Sinai-Halbinsel und in Syrien*.

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- x Frailey, Carl D.
1986. Late Miocene and Holocene mammals, exclusive of the Notoungulata, of the Río Acre region, western Amazonia.
Contr. Sci. Nat. Hist. Mus. Los Angeles County, No. 374: 1–46. 7 tabs. 32 figs. May 15, 1986.
–Describes a lower molar of ?*Ribodon* associated with a Huayquerian (Late Miocene) fauna from the Río Acre on the Peru-Brazil border (5, 34–35).
- Francis, Francis
1879. Manatee at the Brighton Aquarium.
Field, 53(1368): 301. Mar. 15, 1879.
–A short paragraph reporting the manatee's arrival.
- Francis-Floyd, Ruth: SEE ALSO Cardeilhac et al., 1984; White & Francis-Floyd; White et al.
- Francis-Floyd, Ruth; White, Jesse R.; Chen, C.L.; Cardeilhac, Paul T.; & Cichra, C.E.
1991. Serum progesterone and estradiol concentrations in captive manatees, *Trichechus manatus*.
Jour. Aquatic Anim. Health, 3(1): 70–73.
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1948. *Cardiovascular studies*.
Oxford, Blackwell Scientific Publs.
–Manatee heart described.
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Arch. Naturgesch., 35(1): 247–325.
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- Frantzius, Alexander von
1881. Los mamíferos de Costa-Rica. Contribucion al conocimiento de la extension geográfica de los mamíferos de América.... Traducción del alemán por D.R. Cortéz. In: L. Fernandez (ed.), *Coleccion de documentos para la historia de Costa-Rica*. San José de Costa-Rica (4 vols.), Vol. 1.
–Transl. of Frantzius (1869). Manatee, 423.
- Fraser, G.D.: SEE Drewes et al., 1961.
- Frassetto, Fabio
1915. *Lo scheletro degli arti nell'uomo e nei vertebrati. Filogenesi ed ontogenesi*.
Bologna, Libreria editrice Licinio Cappelli, 1–163. 95 figs.
–Sirs., 21.
- Frazier, J.
1989. Sea cow; the last mermaid.
The India Magazine, 9(3): 20–21, 23–25, 27.
- x Frazier, J.G.; & Mundkur, Taej
1991. Dugong *Dugong dugon* Muller in the Gulf of Kutch, Gujarat.
Jour. Bombay Nat. Hist. Soc., 87(3): 368–379. 7 tabs. 2 figs. “Dec. 1990” (publ. Feb. 20, 1991).
–Summarizes dugong records from India and the Gulf of Kutch, gives local common names, and describes a male calf killed in a gillnet, emphasizing external measurements, skin thickness and characteristics, hair density and distribution, flipper callosities (suggested to be vestigial nails), number of phalanges, measurements and weights of organs and gut contents, food plants, and intestinal trematodes. Concludes that the Gulf may harbor a sizable resident dugong population.
- Frazier, John; Bertram, George Colin Lawder; & Evans, Peter G.H.
1987. Turtles and marine mammals. In: A.J. Edwards & S.M. Mead (eds.), *Key environments: Red Sea*. Oxford, Pergamon Press, 288–314.
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1934. Notes sur les mammifères. 16. Les mammifères rapportés, en 1932, de l'Extrême-Orient par S.A.R. le Prince Léopold de Belgique.
Bull. Mus. Hist. Nat. Belgique, 10(14): 1–37. 3 figs. 1 pl.
–Dugong skull and dentition.
- Freeland, W.J.: SEE Bayliss & Freeland, 1989; Marsh, Freeland et al., 1986.
- Freeman, Jerry; & Quintero, Hector
1990. The distribution of West Indian manatees (*Trichechus manatus*) in Puerto Rico: 1988–1989. NTIS Document No. PB 91–137240, iv + 38. 5 tabs. 3 figs. Nov. 30, 1990.
- Freitas, J.F. Teixeira de: SEE Travassos et al., 1969.
- x Freudenthal, Matthew
1969. Fossiele zeekoeien in het Eoceen van Taulanne. *Experimenteel Geologisch Onderwijs*, 1969/70: 64–65.
–Engl. transl.: NTIS Document No. TT 78–53287, 1979. Account of the collection of several skulls and skeletons of Eocene sirs. in France.
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- x Freund, Ludwig
1904. Die Osteologie der Halicoreflosse.
Zs. Wiss. Zool., 77(3): 363–397. 4 figs. Pls. 14–15.
–Abstr.: *Jahresber. Anat. Entwickl. (n.s.)*, 10(3): 116–117? Study of the morphology, ontogeny, variation, and function of the manus of the dugong and other sirs., based on literature review and examination (with x-rays) of Torres Strait dugong specimens.
- Freund, Ludwig
1905. Das Sternum von *Halicore dugong*.

- Zs. Morph. Anthrop.*, 8: 425–438. 1 fig. Pls. 28–29.
- x Freund, Ludwig
1907. Sirenen in Gefangenschaft.
Zool. Beob., 48(3): 65–73. Mar. 1907.
–Review of published accounts of manatees kept in captivity.
- Freund, Ludwig
1908a. Beiträge zur Entwicklungsgeschichte des Schädels von *Halicore dugong* Erxl. In: R.W. Semon (ed.), *Zoologische Forschungsreisen in Australien und dem Malayischen Archipel*, Vol. 4. *Denkschr. Med.-natw. Ges. Jena*, 7(2): 557–626. 50 figs.
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1908b. Der Nasenknorpel der Sirenen.
Verh. Ges. Deutsch. Naturf. Ärzte (meeting at Dresden, Sep. 15–21, 1907), 79 (2. Teil, 1. Hälfte): 254–256.
–Abstr. of portions of Freund (1908a) relating to the cartilages of the nasal region.
- Freund, Ludwig
1908c. Die Anpassung der Säugetiere ans Wasserleben.
Lotos, 56(10): 324–325. Dec. 1908 (read Oct. 27, 1908).
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1911a. Zur Morphologie des harten Gaumens der Säugethiere.
Zs. Morph. Anthrop., 13: 377–394. 4 figs. 1 pl.
–Abstr.: *Verh. Internatl. Zool.-Congr.* (Graz, or Jena, 1910?), 8: 557–558, 1912? Sirs., 377.
- Freund, Ludwig
1911b. Zur Morphologie des Nasenknorpels.
Passow-Schäfers Beitr. Ohr. Nas. Rach., 4: 414–438.
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 -Describes the circumstances of discovery of a partial skeleton of a juvenile *Hydrodamalis* at South Bight, Amchitka, and reviews other North Pacific records of *Hydrodamalis* and the Aleutian occurrence of *Cornwallius*.
- x Gard, Leonard Meade, Jr.; & Szabo, B.J.
 1971. Age of the Pleistocene deposits at South Bight, Amchitka Island, Alaska. [Abstr.]
Geol. Soc. Amer. Abstrs. With Programs, 3(7): 577. Publ. Oct. 1971; read Nov. 1, 1971.
 -Records the occurrence of *Hydrodamalis gigas* in an interglacial (?Sangamon-equivalent) beach deposit, with radiometric dates of 135,000 ± 12,000 and >122,000 years B.P.
- Gardiner, J.S.
 1907. Description of the expedition.
Trans. Linn. Soc. London, (2)12: 1-55, 111-175.
- Gardner, Blair R.: SEE Elliott et al., 1979; Heinsohn et al., 1978, 1979b; Marsh et al., 1981.
- Garfield, G.
 1964. Nature's living herbicide.
Outdoor America, 29(11): 9.
- Garibaldi, L.
 1968. Great munching manatees!
Anchor, 2(7): 30-32.
 -Pop. acc. of a wounded *T. inunguis* at Steinhart Aquarium, San Francisco.
- Garnett, Stephen: SEE Heinsohn et al., 1985.
- Garrod, Alfred Henry
 1877. Notes on the manatee (*Manatus americanus*)

recently living in the Society's gardens.
Trans. Zool. Soc. London, 10, part 3(1): 137-145.
 Pls. 28-30. Oct. 1, 1877 (read Nov. 16, 1875).
 -Notice: *Proc. Zool. Soc. London*, 1875(4): 529,
 567, Apr. 1876. Repr. in volume of Garrod's
 collected works (London, R. H. Porter, 1881)?

Garson, J.G.: SEE Flower & Garson, 1884.

Gaudry, Albert

1878. *Les enchaînements du monde animal dans les
 temps géologiques... Vol. 1. Mammifères terti-
 aires.*

Paris (entire work: 3 vols., 1878-1890), Vol. 1:
 1-295. 312 figs.

-Abstr.: *La Nature*, (Paris) 6(2): 214-219, figs.
 1-6; 243-246, figs. 1-8; 266-270, figs. 1-2?
 Revs.: *Geol. Mag.*, (2)5: 221-227?; *Arch. Zool.
 Expér.*, 8: 67-77, pls. 5-8, 1879?; *Nature*
 (London), 18: 537-538?; *Bull. Soc. Géol. France*,
 (3)6: 151-154. Sumatran dugong (37, fig. 28).

x Gaudry, Albert

1884. Sur un sirénien d'espèce nouvelle trouvé dans le
 bassin de Paris.

Bull. Soc. Géol. France, (3)12(6): 372-375. Pl.
 17. May 1884 (read Apr. 7, 1884).

-Abstrs.: *C.R. Acad. Sci. Paris*, 98: 777-778?; *La
 Nature* (Paris), 12(1): 303?; *Naturaliste*, 2: 474?
 Describes *Halitherium Chouqueti*, n.sp., based on
 14 ribs from Oligocene deposits southwest of
 Paris. These are said to resemble, and were
 associated with, ribs of *H. schinzii*, but are more
 massive.

Gaudry, Albert

1885. [Remark on *Halitherium*.]

Bull. Soc. Géol. France, (3)13: 441.

Gaudry, Albert

1887. [Correction of note on *Halitherium* in Italy.]

Bull. Soc. Géol. France, (3)15: 11.

Gaumer, George F.

1917. *Monografía de los mamíferos de Yucatán.*

Mexico City, Dept. de Talleres Graficos de la
 Secretaria de Fomento, xxxviii + 331. 57 pls. 1
 map.

-Manatees, 29-30.

Gaupp, Ernst

1913. Die Reichertsche Theorie (Hammer-, Amboss-
 und Kieferfrage).

Arch. Anal. Physiol., 1912, Suppl.-Band: xiii +
 416. 149 figs.

-Abstr.: *Jahresber. Anat. Entwickl.* (n.s.), 18(3):
 55-67? Sirs., 125.

Gebhardt, F.A.M. Walter

1901. Über funktionell wichtige Anordnungsweisen der
 gröberen und feineren Bauelemente des
 Wirbeltierknochens.

Arch. Entwicklungsmech. Org., 11: 383-498, 8
 figs., pls. 15-19; 12: 1-52, 167-223, 15 figs.

-Dugong bone histology.

Gegenbaur, Carl

1898. *Vergleichende Anatomie der Wirbeltiere mit
 Berücksichtigung der Wirbellosen. Iter Band.
 Einleitung, Integument, Skeletsystem, Muskelsys-
 tem, Nervensystem und Sinnesorgane.*

Leipzig, W. Engelmann (2 vols., 1898-1901), xiv
 + 978. 619 figs.

Geiling, Eugene Maximilian Karl: SEE ALSO Oldham et
 al., 1938.

Geiling, Eugene Maximilian Karl

1940. *Comparative anatomy and pharmacology of the
 pituitary gland.*

Iowa City, State University of Iowa, College of
 Medicine (Paul Reed Rockwood Lecture), 1-28.
 Illus.

-Pituitary and hypophysis of *T. manatus*.

Geist, Otto William: SEE Murie, O.J., 1937.

Gelineo, S.

1964. Organ systems in adaptation: the temperature
 regulating system. In: *Adaptation to the environ-
 ment (Handbook of Physiology, 4).*

Baltimore, Williams & Wilkins Co., 259-282.
 Illus.

Genoways, Hugh H.: SEE ALSO McLaren et al., 1986.

Genoways, Hugh H.; & Jones, J. Knox, Jr.

1975. Annotated checklist of mammals of the Yucatan
 Peninsula, Mexico. 4. Carnivora, Sirenia, Perisso-
 dactyla, Artiodactyla.

Occas. Pap. Mus. Texas Tech. Univ., No. 26:
 1-22. 1 fig.

Genschow, Joachim

1934. Über den Bau und die Entwicklung des Geruchs-
 organes der Sirenen.

Zs. Wiss. Biol. Abt. A: Zs. Morph. Ökol. Tiere
 (Berlin), 28(4): 402-444. 28 figs.

George, A.S.: SEE Burbridge & George, 1978.

George, J.C.

1974. This fragile menagerie hangs by a thread.

Natl. Wildlife, 12(3): 6-14.

-Single photograph of *T. manatus*.

Geptner, Vladimir Georgievich: SEE Heptner, Vladimir
 Georgievich.

x Geraads, Denis

1989. Vertébrés fossiles du miocène supérieur du Djebel
 Krechem el Artsouma (Tunisie centrale). Com-
 paraisons biostratigraphiques.

Géobios, 22(6): 777-801. 1 tab. 4 figs. 2 pls. Dec.
 1989.

-Engl. summ. Describes a lower second molar of
Metaxytherium sp. from Tunisia and compares it
 with *M. medium* and *M. serresii* (781, 791, pl. 2).

Suggests that these animals lived in estuaries or rivers, and that the Sahabi fauna from Libya is latest Miocene rather than early Pliocene.

Geraci, Joseph R.: SEE ALSO Medway & Geraci, 1986.

Geraci, Joseph R.

1986. Marine mammals (Cetacea, Pinnipedia, and Sirenia). Introduction and identification [and] Husbandry. In: M.F. Fowler (ed.), *Zoo and wild animal medicine*, 2nd. revised ed. Philadelphia, W.B. Saunders (xxiv + 1127), 750–760. Illus.

—The Husbandry chapter begins on p. 757.

Geraci, Joseph R.; & St. Aubin, David J.

1987. Effects of parasites on marine mammals. In: M.J. Howell (ed.), *Parasitology—quo vadit?* Proc. 6th Internatl. Congr. Parasitology, Canberra, 1986 (xviii + 741).

Internatl. Jour. Parasitology, 17(2): 407–414.

Geraci, Joseph R.; & Sweeney, J.C.

1978. Clinical techniques: marine mammals (Cetacea, Pinnipedia and Sirenia). In: M.F. Fowler (ed.), *Zoo and wildlife medicine*.

Philadelphia, W.B. Saunders Co., 587–588.

Gerhardt, Ulr.

1911. Zur Morphologie der Säugetierriere.

Verh. D. Zool. Ges. Leipzig, 20–21: 260–272.

Gernant, Robert E.; Gibson, Thomas G.; & Whitmore,

Frank Clifford, Jr.

1971. Environmental history of Maryland Miocene.

Maryland Geol. Surv. Guidebook, No. 3: 1–58.

Géroutet, Paul: SEE Simon & Géroutet, 1970.

Gerstein, Edmund R.: SEE Patton & Gerstein, 1992.

Gervais, François Louis Paul

1835. Dugong, *Halicore*. In: Guérin, *Dict. Pittoresque d'Hist. Nat. Phénom. Nat.*, 2 (livr. 155): 595–596.

—Allen 850. Publ. 1836? *Halicore indicus*.

Gervais, François Louis Paul

1836. Lamantin, *Manatus*. In: Guérin, *Dict. Pittoresque d'Hist. Nat. Phénom. Nat.* 4 (livr. 282): 331–333.

—Allen 894.

x Gervais, François Louis Paul

1846. Observations sur diverses espèces de mammifères fossiles du midi de la France.

Ann. Sci. Nat. (Zool.), (3)5: 248–265. May 1846.

—Discusses mammal classification, placing the Sirenia among the ungulates along with the Proboscidea (250–251), and mentions a rib fragment of *Metaxytherium* from Montpellier, France (264).

Gervais, François Louis Paul

1847a. La zoologie de la France. In: *Patria. La France ancienne et moderne, morale et matérielle, ou collection encyclopédique*.

Paris, 1 (1512 columns): 493–596. Figs. 162–255.

—Mentions *Metaxytherium*, 517.

x Gervais, François Louis Paul

1847b. Observations sur les mammifères fossiles du midi de la France.... Deuxième partie.

Ann. Sci. Nat. (Zool.), (3)8: 203–224. Oct. 1847.

—Continuation of Gervais (1846). Consists mostly of “§VII. Sur les Mammifères voisins des Dugongs, que l’on a nommés *Halitherium*, *Metaxytherium*, etc.” (203–221). Summarizes previous work on fossil sirs., and presents a comprehensive list of their European occurrences (203–210). Describes the skull and dentition of the “*Halitherium*” from Montpellier (210–217), which he names *H. Serresii*, n.sp. [= *Metaxytherium serresii*] (221). Compares *Toxodon* with *Halitherium* and the modern dugong, concluding that this South American notoungulate is (unlike the proboscidean *Dinotherium*) a sir. (218–219, 221). Concludes that *Halianassa*, *Metaxytherium*, and other genera are synonyms of *Halitherium*; presents a diagnosis of the latter genus; and recognizes several species for which he coins the new combinations *Halitherium fossilis* [= *Metaxytherium medium*], *H. Guettardi* [= *H. schinzii*], and *H. Brocchii* [= *M. subapenninum*] (221).

Gervais, François Louis Paul

1849–1850. Sur la répartition des mammifères fossiles entre les différents étages tertiaires qui concourent à former le sol de la France.

Mém. Sect. Sci., Acad. Sci. Lettres Montpellier, 1(1): 203–219 (1849); 1(2): 399–413 (1850).

—Abstrs.: *C.R. Acad. Sci. Paris*, 28: 546–552?, 28(21): 643–647, May 1849; *L'Institut*, 17(807): 194–198, Jun. 20, 1849; *Rev. Mag. Zool. (Paris)*, 1849: 223–224? The Montpellier publication also exists in another version, with identical text, but it is reset with slightly different typeface and pagination (1(1): 203–220). *Sirs.*, 216–219, 405–406, 409.

Gervais, François Louis Paul

1852. *Zoologie et paléontologie françaises (animaux vertébrés) ou nouvelles recherches sur les animaux vivants et fossiles de la France....*

Paris, Arthus Bertrand (3 vols., title-pages dated 1848–1852), Vol. 1 (text): viii + 271; Vol. 2 (explication des plâches); Vol. 3 (atlas): 45 pls.

—Rev.: *Arch. Sci. Phys. Nat.*, 26: 233–240, 1854? Ed. 2: Gervais (1859). *Sirs.*, 1: 141–145, 199; pls. 4–6, 41. Recognizes *Halitherium Serresii*, *H. fossile*, *H. Beaumontii* [n.comb.], *H. Guettardi*, *H.*

dubium [n.comb.], and *Trachytherium Raulinii* as valid species.

Gervais, François Louis Paul

1853. Sur la comparaison des membres chez les animaux vertébrés.

Ann. Sci. Nat. (Paris), (3)20: 21–69.

–Sirs., 35.

x Gervais, François Louis Paul

1855a. *Animaux nouveaux ou rares recueillis pendant l'expédition dans les parties centrales de l'Amérique du Sud, de Rio de Janeiro à Lima, et de Lima au Para, pendant les années 1843 à 1847, sous la direction du Comte Francis de Castelnau... Mammifères.*

Paris, P. Bertrand, 1–116. 20 pls.

–Gives general description of a skeleton of “*Manatus australis*” from Pebas, Colombia (114–115); argues for the domestication of manatees (116); and quotes Castelnau’s account of manatee predation by jaguars (116).

Gervais, François Louis Paul

1855b. *Histoire naturelle des mammifères, avec l'indication de leurs moeurs, et de leurs rapports avec les arts, le commerce et l'agriculture. II. Carnivores, proboscidiens, jumentés, bisulques, édentés, marsupiaux, monotrèmes, phoques, sirénides et cétacés.*

Paris, L. Curmer (entire work: 2 vols., 1854–1855), Vol. 2: 1–344. 286 figs. 40 pls.

–Sirs., 2: 308–313.

Gervais, François Louis Paul

1859. *Zoologie et paléontologie françaises. Nouvelles recherches sur les animaux vertébrés dont on trouve les ossements enfouis dans le sol de la France et sur leur comparaison avec les espèces propres aux autres régions du globe.* Ed. 2.

Paris, Arthus Bertrand, viii + 544. figs. Atlas, pp. i–xii + 84 pls.

–Ed. 1: Gervais (1852). Sirs., 276–283, pls. 4–6, 41.

Gervais, François Louis Paul

1869a. *Haliterium fossile* à Léognan.

Actes Soc. Linn. Bordeaux, 27, Proc.-verb., xxi–xxii.

Gervais, François Louis Paul

1869b. *Zoologie et paléontologie générales. Nouvelles recherches sur les animaux vertébrés vivants et fossiles.*

Paris, Arthus Bertrand (2 séries, 1867/69–76), 1. sér.: vii + 263. 50 pls. (1862–1869).

–Sirs., “1: 184,” *fide* Freund (1950); confused with Gervais (1859)?

Gervais, François Louis Paul

1872a. Travaux récents sur les sirénides vivants et fossiles

(analyse des publications de MM. Van Beneden, E. Lartet, Delfortrie, Capellini, etc.).

Jour. Zool. (Paris), 1: 332–353. 4 figs. Pls. 18–19.

Gervais, François Louis Paul

1872b. Coup d’oeil sur les mammifères fossiles de l’Italie.

Bull. Soc. Géol. France, (2)29: 92–103.

–Abstr.: *Jour. Zool.* (Paris), 1: 211–233?; *L’Institut*, 1873: 222–224?

Gervais, François Louis Paul

1874. Remarques sur les formes cérébrales propres aux thalassothériens.

Jour. Zool. (Paris), 3: 570–583. Pl. 19.

–Sirs., 578.

Gervais, François Louis Paul; & Serres, Marcel de

1846. Sur les mammifères dont on a trouvé les restes fossiles dans la caverne de Lunel-Viel et dans les sables de Montpellier.

Ann. Sci. Nat. (Zool.), (3)5: 266–271. May 1846.

–Abstr.: *Rev. Mag. Zool.* (Paris), 1846: 78?

Gervais, François Louis Paul; & Serres, Marcel de

1847. Sur les mammifères fossiles des sables marins tertiaires de Montpellier.

C.R. Acad. Sci. Paris, 24: 799–801.

–Abstr.: *Ann. Sci. Nat. (Zool.)*, (3)8: 224–226?; *Rev. Mag. Zool.* (Paris), 1847: 174?

Gesner, Conrad

1556? *De piscibus et aquatilibus omnibus libelli III. noui...*

[Tiguri, 1556?]: 1–280.

–Or 1558 ed., Allen 14? Or 1563? Sirs., 213 or 253 (in 1587 ed.?). A woodcut in the 1558 ed., based on the verbal account of remora fishing by P. Martyr (1511), shows natives using a remora to catch what may be a manatee (see also P. Budker, *The life of sharks*, N.Y., Columbia Univ. Press: 156, 1971).

Gesner, Conrad

1558. *Historiae animalium liber IIII. qui est de piscium & aquatiliu animalium natura. Cum iconibus singulorum ad vivum expressis fere omnib. DCCVI ...*

Zurich, Christof Froschover, 1–1297. Illus.

–A woodcut of remora fishing (483) possibly shows a manatee, according to Whitehead (1977); see also “*?Cyprinus rarus & monstrosus*” (373).

Gesner, Conrad

1560. *Nomenclator aquatiliu animalium. Icones animalium aquatiliu in mari & dulcibus aquis degentium, plus quam DCC. cum nomenclaturis singulorum Latinis, Grecis, Italicis, Hispanicis, Gallicis, Germanicis, Anglicis, alijsq, interdum, per certos ordines digestae.*

Zurich, Christof Froschover, 1–374. Illus.

–Whitehead (1977: 168) says that this work “gives, without much conviction, animals called ‘*Vaccae marinae*’ from ‘*Oceano Septemtrionali*’, but the woodcut shows, emerging from the waves, the head of a very Swiss cow!”

Gettinger, R.: SEE Ralph et al., 1985.

x Gewalt, Wolfgang

1968. Unsere Sirene—eine Amazonas-Seekuh (*Trichechus m. manatus* L.) im Duisburger Tierpark. *Freunde des Kölner Zoo*, 10(4): 123–125. 4 figs. Winter 1967/68.

–Pop. acc. of sirs. and not-very-informative account of the captive manatee in Duisburg. Briefly mentions others kept in Germany (124), and the attempt of a steamship captain in the Red Sea to rescue what he thought were shipwrecked sailors but were actually seacows (123).

x Giacone, Antonio

1965. *Gramática dicionários e fraseologia da lingua Dahceié ou Tucano*.

Belém, Univ. do Pará, 1–207.

–Tucano name for the manatee given on p. 170: {“Peixe boi = uaí-uehquê”}

x Giacone, Antonio

n.d. *Pequena gramática e dicionário da lingua Tucana*. Manaus, Missão Salesiana do Rio Negro—Amazonas: 1–61.

–Tucano name for the manatee given on p. 54: {“Peixe-boi—Uekque-uaí”}

x Gibbes, Robert Wilson

1849. New species of fossil *Myliobates*, from the Eocene of South Carolina, and new fossils from the Cretaceous, Eocene, and Pliocene of South Carolina, Alabama, and Mississippi.

Proc. Amer. Assoc. Adv. Sci., 2: 193–194. Aug. 17, 1849.

–Includes in list of fossils from “Eocene of South Carolina and Mississippi” on p. 193: {“Rib and vertebrae of *Manatus*.”} These were probably from South Carolina but probably not Eocene; see Gibbes (1850).

x Gibbes, Robert Wilson

1850. Remarks on the fossil *Equus*.

Proc. Amer. Assoc. Adv. Sci., 3: 66–68.

–States (67) that *Equus* and *Manatus* remains were found in situ in Eocene marl from the plantation of John A. Ramsay on the Ashley River, South Carolina; but F.S. Holmes pointed out (68–69) that the marl surface has holes filled with younger material and fossils.

x Gibbon, Lardner

1854. *Exploration of the valley of the Amazon, made*

under direction of the Navy Department, by Wm. Lewis Herndon and Lardner Gibbon.... Part II.

Washington, A.O.P. Nicholson, xi + 339. Illus.

–See also Herndon (1853). On the Madeira River between Crato and Porto de Maturá, Oct. 12, 1852 (p. 309): {“We are told the fish called ‘peixe boi’ (bull-fish,) of the Madeira, is the same as the ‘vaca-marina’ (sea-cow,) of the Ucayali, though comparatively there are few taken.”}

x Gibson, James R.

1969. *Feeding the Russian fur trade: provisionment of the Okhotsk seaboard and the Kamchatka Peninsula 1639–1856*.

Madison, Milwaukee, & London, Univ. Wisconsin Press, xix + 337. 17 tabs. 10 figs. 10 maps.

–Mentions the use of *Hydrodamalis* for provisionment (29, 30, 48, 51–52, 54) and boat construction (31).

Gibson, Thomas G.: SEE Gernant et al., 1971.

Gibson-Hill, C.A.

1950. The dugong.

Malayan Nature Jour., 5(1): 25–29. 2 figs.

–Distribution, population trends, and habits of the dugong in Malaysia.

Gicca, Diderot: SEE Campbell & Gicca, 1978.

Giebel, Christoph Gottfried Andreas

1847. *Fauna der Vorwelt mit steter Berücksichtigung der lebenden Thiere.... Erster Band: Wirbelthiere. Erster Abtheilung: Säugethiere*.

Leipzig, F.A. Brockhaus (entire work: 3 vols. in 5, 1847–1856), Vol. 1: xi + 283.

–Sirs., 226–232.

Giebel, Christoph Gottfried Andreas

1855. *Odontographie. Vergleichende Darstellung des Zahnsystemes der lebenden und fossilen Wirbelthiere*.

Leipzig, Ambrosius Abel, xx + 129. 52 pls.

–Sirs. (including *Dinotherium*), 83–84, pls. 35–37.

Giebel, Christoph Gottfried Andreas

1883. *Säugethiere: Mammalia*. In: H.G. Bronn, *Klassen und Ordnungen des Thier-Reichs*.

Leipzig & Heidelberg, C.F. Winter'sche Verlags-handlung (1874–1900), 6(5): 1–576. Pls. 1–92.

–See also W. Leche (1887).

x Gijzen, A.

1953. Une perte sensible.

Zoo (Antwerp), 18: 89. 1 fig.

–Notice of the death, from infection, of a *T. senegalensis* after five years in captivity.

x Gijzen, A.

1958. *Palmares de nos rares zoologiques*.

Zoo (Antwerp), 24(1): 6–38. Illus.

–Brief account of the zoo's attempts to keep *T.*

senegalensis in captivity, with a photo of one specimen (26).

Gijzen, A.

1963. Au cours de huit années de séjour au Zoo, Huka notre lamantin n'a fait que croître et prospérer. *Zoo* (Antwerp), 28: 194. 1 pl.

Gilbert, J.R.: SEE Eberhardt et al., 1979.

Gilbrook, Michael J.

1990. Potential contributions of Regional Planning Council Geographic Information Systems to manatee management. In: J.E. Reynolds, III & K.D. Haddad (eds.), Report of the Workshop on Geographic Information Systems as an Aid to Managing Habitat for West Indian Manatees in Florida and Georgia. *Florida Mar. Res. Publ.*, 49: 39–44. 2 tabs. Dec. 1990.

Gilli, Filippo Salvatore

1780. *Saggio di storia Americana, o sia storia naturale, civile, e sacra de regni, e delle provincie Spanuole di terra-ferma nell' America Meridionale*. Roma, L. Perego erede Salvioni (4 vols., 1780–1784).
–Allen 363. Manatee, 1: 84, fig. 1.

x Gill, Theodore Nicholas

1872a. Arrangement of the families of mammals [pp. 1–42]. [Followed by] Synoptical tables of characters of the sub-divisions of mammals, with a catalogue of the genera [pp. 43–98]. *Smithson. Misc. Coll.*, 11(1)(230): vi + 98. Nov. 1872.

–Introduces the following new superfamily and family names in his classification: Halicoroidea (13), Manatoidea (14), Trichechoidea (91), and Trichechidae (14). Summarizes sir. characters (48–49) and provides a key to the families (91) and a list of the genera (91–92). The Halicoroidea include the Halitheriidae, Halicoridae, and Rhytiniidae; the Manatoidea or Trichechoidea (Gill uses these terms inconsistently and interchangeably) include only the Trichechidae.

x Gill, Theodore Nicholas

1872b. On the characteristics of the primary groups of the class of mammals. *Proc. Amer. Assoc. Adv. Sci.*, 20: 284–306.
–Extract: *Amer. Naturalist*, 5: 526–533, 1871? Gives a brief diagnosis of the Order Sirenia (300–301).

x Gill, Theodore Nicholas

1873. On the affinities of the sirenians. *Proc. Acad. Nat. Sci. Philadelphia*, 25(2): 262–273.
–Concludes that the Cetacea and Sirenia are closer to each other than either is to any other order, and

that they share a common aquatic ancestor. Also provides a genealogical tree of the sir. families.

Gill, Theodore Nicholas

1882. *Scientific and popular views of nature contrasted. A lecture delivered in the National Museum, March 11th, 1882*. *U.S. Natl. Mus. Saturday Lectures*, No. 1: 1–24.
–?Sir. tail flukes, 10–11.

Gill, Theodore Nicholas

1907. Systematic zoology: its progress and purpose. *Science* (n.s.), 26: 489–505.
–Sirs., 494.

Gill, William

1981. Manatee found in Chesapeake Bay, Virginia. *Endangered Species Tech. Bull.* (U.S. Fish & Wildl. Serv.), 6(1): 6–7. Jan. 1981.

Gill, William Wyatt

1875. The dugong. *Leisure Hour*, 24: 823.

Gill, William Wyatt

1876. *Life in the southern isles; or, scenes and incidents in the South Pacific and New Guinea*. London, The Religious Tract Society, viii + 360. Illus.
–Dugong, 298–302.

Gillet, S.; & Théobald, N.

1936. Les sables marins de l'Oligocène du Haut-Rhin. *Bull. Serv. Carte Geol. Alsace-Lorraine*, 3: 37–76. 1 pl.
–Report of *Halitherium schinzii*, 69.

Gingerich, Philip D.: SEE ALSO Wells & Gingerich, 1983.

x Gingerich, Philip D.

1992. Marine mammals (Cetacea and Sirenia) from the Eocene of Gebel Mokattam and Fayum, Egypt: stratigraphy, age, and paleoenvironments. *Univ. Michigan Papers on Paleontology*, No. 30: ix + 84. 2 tabs. 56 figs. Jun. 30, 1992.
–Describes in detail the history of study and geologic context of marine mammal fossils from the Middle and Late Eocene of the Mokattam Hills and Fayum and the Oligocene of the Fayum. Attempts to specify the localities and horizons from which all the fossil marine mammal types were collected. Recognizes *Eotheroides aegyptiacum*, *Protosiren fraasi*, and *Eosiren libyca* as valid species, and suggests that the other nominal species of fossil sirs. from Egypt are synonyms of these.

x Gingerich, Philip D.; Raza, S. Mahmood; Arif, Muhammad; Anwar, Mohammad; & Zhou, Xiaoyuan

1993. Partial skeletons of *Indocetus ramani* (Mammalia, Cetacea) from the lower Middle Eocene Domanda Shale in the Sulaiman Range of Punjab (Pakistan).

Contr. Mus. Pal. Univ. Michigan, 28(16): 393–416. 4 tabs. 14 figs. Sep. 30, 1993.

–The pelvis referred to *Protosiren fraasi* by Sahni & Mishra (1975) is here reidentified as the cetacean *Indocetus ramani* (410–411).

x D Gingerich, Philip D.; Russell, Donald E.; & Wells, Neil A.

1990. Astragalus of *Anthracobune* (Mammalia, Proboscidea) from the Early-Middle Eocene of Kashmir. *Contrib. Mus. Pal. Univ. Michigan*, 28(3): 71–77. 3 figs. Dec. 14, 1990.

–Compares astragalus characters of *Anthracobune* with those of other proboscideans and desmostylians, and suggests that both desmostylians and sirs. could be derived from anthracobunid proboscideans.

x Ginsburg, Léonard

1970. Les mammifères des faluns helvétiques du Nord de la Loire.

C.R. Somm. Séances Soc. Géol. France, 1970(6): 189–190. Séance of Jun. 1, 1970.

–Includes *Halianassa cuvieri* in faunal list; considers it lower Helvetian (Miocene).

x Ginsburg, Léonard; & Janvier, Philippe

1971. Les mammifères marins des faluns miocènes de la Touraine et de l'Anjou.

Bull. Mus. Natl. Hist. Nat. (Paris), (3)22, *Sci. de la Terre*, 6: 161–195. 23 figs. Nov.–Dec. 1971.

–Reviews the synonymy, history of study, occurrences, anatomy, and relationships of *Metaxytherium medium*, with illustrations of upper molars and a summary of the dimensions of 234 teeth (161, 182–191).

x Ginsburg, Léonard; Janvier, Philippe; Mornand, J.; & Pouit, D.

1979. Découverte d'une faune de mammifères terrestres d'âge vallésien dans le falun miocène de Doué-la-Fontaine (Maine-et-Loire).

C.R. Somm. Séances Soc. Géol. France, 1979(5–6): 223–227. Séance of Dec. 18, 1979.

–Reports teeth of *Metaxytherium medium* (224); considers the falun of Doué no older than lower Vallesian (Middle Mioc.) (226).

Gipe, T.: SEE Barile et al., 1983.

Girard, Charles

1852. On the classification of Mammalia.

Proc. Amer. Assoc. Adv. Sci., 6: 319–335. 2 figs. Read Aug. 1851.

Giraud-Sauveur, D.; & Miloche, M.

1968. Sur la structure particulière des os de l'oreille moyenne des cétacés odontocètes.

Jour. Microsc. (Paris), 7(7): 1093–1098. 1 pl.

–Crystallography of ear ossicles of *T. senegalensis*.

Gissendanner, Elton J.: SEE Appendix 1: *Florida Conser-*

vation News, Nov. 1979.

x Gistel, Johannes

1848. *Naturgeschichte des Thierreichs. Für höhere Schulen.*

Stuttgart, Hoffman'sche Verlags-Buchhandlung, xvi + 216.

–Classification of sirs. (= "Familie Halicorea"), with brief descriptions of the taxa; includes *Halipaedisca* (new name for *Manatus*) and "*H. americanus*"; *Halicore cetacea*; and *Rytina stell-eri* (83).

Gistel, Johannes; & Bromme, Traugott

1850. *Handbuch der Naturgeschichte aller drei Reiche, für Lehrer und Lernende, für Schule und Haus.*

Stuttgart, Hoffmann'sche Verlags-Buchhandlung, 1–1037. Illus.

–Mentions *Halipaedisca*, 273.

Glaessner, M.F.

1931. Neue Zähne von Menschenaffen aus dem Miocän des Wiener Beckens.

Ann. Naturhist. Mus. Wien, 46: [pp.?

–Mentions *Metaxytherium* sp., 15.

Glas, J.-E.

1962. Studies on the ultrastructure of dental enamel. 6. Crystal chemistry of shark's teeth.

Odontologisk Revy (Lund), 13(4): 315–326. 1 tab. 3 figs.

–Mention of *T. senegalensis*.

Glazebrook, Rozanne

1979. Mermaid at Cairns.

Wildlife in Australia, 16(2): 4–5. 1 fig. Winter 1979.

–Pop. acc. of a young dugong in captivity.

Gleiss, G. W.

1967. *Chronik des Zoologischen Gartens, Breslau.* Wedel.

Gloger, Constantin Wilhelm Lambert

1842. *Gemeinnütziges Hand- und Hilfsbuch der Naturgeschichte. Für gebildete Leser aller Stände, besonders für die reifere Jugend und ihre Lehrer.... Erster Band....*

Breslau, Aug. Schulz & Comp., xxxiv + 495.

–Coins the generic name *Halibutherium* (= *Halitherium*?).

Glover, Thomas

1676. An account of Virginia.

Philos. Trans. Roy. Soc. London, 11(126): 625–626. Jun. 20, 1676.

–See W.L. McAtee (1950).

Glover, Timothy D.: SEE Marsh, Heinsohn, & Glover, 1984; Marsh & Glover, 1981.

Gluckman, Casey J.: SEE Reynolds & Gluckman, 1988.

Gluckman, David: SEE ALSO Marine Mammal Commission, 1986.

- x Gluckman, David
 1983a. Review of laws and educational programs preventing harm to manatees due to waterborne activities. In: J.M. Packard (ed.), Proposed research/management plan for Crystal River manatees. Volume III. Compendium (q.v.). *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 3 (iii + 346): 233–252. 5 figs. Dec. 1983.
 –Reviews federal and state laws regarding the “taking” of manatees, and makes recommendations for their application and strengthening; outlines existing educational programs and possible ways of funding them.
- x Gluckman, David
 1983b. Legal review regarding water quality and aquatic weed control in manatee habitat. In: J.M. Packard (ed.), Proposed research/management plan for Crystal River manatees. Volume III. Compendium (q.v.). *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 3 (iii + 346): 253–273. 7 figs. Dec. 1983.
 –Discusses federal, state, and local regulations and regulating procedures, and recommends ways of dealing with herbicide spraying programs that pose hazards to manatees.
- x Gluckman, David
 1983c. Review of land acquisition programs suitable for protection of manatee habitat. In: J.M. Packard (ed.), Proposed research/management plan for Crystal River manatees. Volume III. Compendium (q.v.). *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 3 (iii + 346): 274–301. 6 figs. Dec. 1983.
 –Describes available federal, state, and local acquisition programs, recommends legal changes in some of them, and suggests specific habitat acquisitions in Taylor, Levy, Citrus, and Hernando Counties, Florida.
- x Gluckman, David
 1983d. Impact of the National Environmental Policy Act on preservation and protection of manatees. In: J.M. Packard (ed.), Proposed research/management plan for Crystal River manatees. Volume III. Compendium (q.v.). *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 3 (iii + 346): 317–320. Dec. 1983.
 –Discusses this 1970 federal act’s requirement that Environmental Impact Statements be prepared in advance of “major federal actions,” and points out that, although this act lacks provisions for preventing potential harm identified by this process, other laws can and should be used to do so.
- x Gluckman, David; & Hamann, Richard
 1983. Annotated list of laws and regulations relevant to protection of West Indian manatees and their habitat. In: J.M. Packard (ed.), Proposed research/management plan for Crystal River manatees. Volume III. Compendium (q.v.). *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 3 (iii + 346): 174–184. Dec. 1983.
 –Includes 15 federal acts, 4 articles of the Florida Constitution, and 30 Florida statutes.
- Gmelin, D.
 1892. Zur Morphologie der Papilla vallata und foliata. *Arch. Mikr. Anat.*, 40: 1–28. 1 pl.
 –Sirs., 18.
- Gmelin, Johann Friedrich
 1788. *Caroli a Linné, ... Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio decima tertia, aucta, reformata.*
 Lipsiae [= Leipzig], Impensis Georg. Emanuel. Beer, 1–500.
 –Allen 405. The (posthumous) thirteenth ed. of Linnaeus’ *Systema Naturae*. *Trichechus Dugong* and *T. Manatus australis* (= *T. manatus* + *T. senegalensis*), 60; *T. M. borealis* (= *Hydrodamalis gigas*), 61.
- Godina, Giovanni: SEE Amprino & Godina, 1947.
 Godman, F.D.: SEE Murie, J., 1880.
 Godman, John Davidson
 1828. *American natural history. Vol. III. Part I. Mastology.*
 Philadelphia, Carey, Lea & Carey, 1–264.
 –Allen 711. Ed. 2, 1831 (Allen 760); text identical. Sirs., 39–55.
- x Goebel, Ad.
 1862. Chemische Untersuchung der Rippen der Rhytina. *Bull. Acad. Sci. St.-Petersbourg*, (3)5: 188–193. May 16, 1862 (read Apr. 18, 1862).
 –Chemical analysis of a rib of *Hydrodamalis* revealed no differences from bone of other mammals. The preservation of collagen (“Knorpel”), capillaries, and probable fat cells is also noted (189–190).
- Goeje, C.H. de
 1928. *The Arawak language of Guiana.* Amsterdam.
 –Origins of the name “manati,” 30, 259.
- x Goeldi, Emil August
 1893. *Os mammiferos do Brasil.*
 Rio de Janeiro, Alves & C. (Monographias

Brasileiras No. 1), iii + 181.

—Lists the Family Manatidae under Cetacea (13); notes the distribution of “*Manatus americanus (latirostris)*” and “*M. inunguis*” in Brazil; briefly describes their habits, economic and medicinal uses, and hunting, and an attempt to bring a young *M. americanus* to London (119–121). A dairy cow was brought along to nourish it, but the manatee died of cold en route. Notes that “manati” is an indigenous name (165).

Goeldi, Emil August

1897. *Brasilianische Reptilien.*

Zool. Jahrb., Syst., 10: 640–676.

x Goeldi, Emil August; & Hagemann, Gottfried

1904. Prodomo de um catalogo critico, commentado da colleção de mamíferos no Museu do Pará (1894–1903).

Bol. Mus. Goeldi (Mus. Paraense) Hist. Nat. Ethnogr., 4(1): 38–106, 119–122. Feb. 1904.

—Records four skeletons of *Manatus inunguis* in the collection, from various localities from Iquitos (Peru) to the mouth of the Amazon, and one living specimen from the Rio Purús captive since Sep. 1902. All the skeletons have 14 pairs of ribs and lack nails on the digits (89–90).

Goettert, Liesel

1966. Verhaltensweisen einer Seekuh.

Natw. Rundschau, 19(5): 202.

—Abstr. of J. Kinzer (1966).

Gohar, H.A.F.

1944. [Dugong captured in the Red Sea.]

Ann. Rept. Marine Biol. Station, Fac. Sci. Fouad I Univ. (Cairo), 1942–1943: 34–36.

Gohar, H.A.F.

1957. The Red Sea dugong.

Publ. Marine Biol. Station Al-Ghardaqa Red Sea, No. 9: 3–49. 1 tab. 17 figs. 3 pls.

—A careful and detailed account, based on 16 specimens, emphasizing external morphology, skin, and hair (6–15), the masticating plates (16–23), the tongue (24–29), the external genitalia (30–35), and internal parasites (43–45, 48). Defends the functional importance of the “vestigial” lower incisor alveoli as sites of anchorage for the masticating plate (21–22). Regards the Red Sea population as a valid subspecies, *Dugong dugong* [sic] *tabernaculi* (35–40). Describes (perhaps on the basis of information from fishermen?) a very unlikely-sounding mode of grazing, in which dugongs purportedly uproot seagrasses with the flippers, stack them in heaps, and then return to consume them in the same order (42)! Argues that dugongs may well have contributed to

mermaid legends (46–47).

x Golder, F.A.

1922. Bering's voyages: an account of the efforts of the Russians to determine the relation of Asia and America.... Volume I: The log books and official reports of the first and second expeditions 1725–1730 and 1733–1742 with a chart of the second voyage by Ellsworth P. Bertholf. *Amer. Geogr. Soc. Research Series*, No. 1: x + 371. 15 figs. 1 pl.

—Vol. 2 (1925) is listed here as G.W. Steller (1925). This vol. contains brief comments on Steller's sea cow from Kharlam Yushin's journal (237), a description of the hunting technique from Sofron Khitrov's journal (238), and further brief remarks by Sven Waxell (279). All were officers of Bering's second expedition and hence eyewitnesses. Also contains a valuable bibliographic essay and annotated bibliography on Bering's expeditions and related topics (349–371).

Goldfuss, Georg August

1820. *Handbuch der Zoologie... Zweite Abtheilung.* In the series: *Handbuch der Naturgeschichte, zum Gebrauch bei Vorlesungen. Von Dr. G[otthilf]. H[einrich von]. Schubert. Dritter Theil. Zweite Abtheilung.*

Nürnberg, Johann Leonhard Schrag, xxiv + 510.

—Allen 588. *Sirs.*, 336–339.

x Goldman, Edward A.

1920. Mammals of Panama.

Smithson. Misc. Coll., 69(5): 1–309. 39 pls. 1 map. Apr. 26, 1920.

—Records and distribution of *T. manatus* in Panama (68–71). Quotes Dampier at length (69–71) on the habits of the manatee and the Mosquito Indians' techniques of harpooning it.

x Goldsmith, Paul

1986. Undomesticated animals and plants. Fish. In: A. Hansen & D.E. McMillan (eds.), *Food in sub-Saharan Africa.*

Boulder (Colorado), Lynne Rienner Publishers, Inc. (410 pp.), 229–238.

—States that the Bajuni people of East Africa use remoras to catch dugongs and sea turtles (231).

Goldstein, E.: SEE Pilson & Goldstein, 1972?.

Golley, F.B.: SEE Caldwell & Golley, 1965.

Golpe Posse, J.M.: SEE Crusafont-Pairó & Golpe Posse, 1975.

Gomara, Francisco Lopez de

1554. *La historia general delas Indias, con todos los descubrimientos, y cosas notables que han acaecido enellas, dende que se ganeron hasta agora, ... Añadiose de nuevo la descripcion y traça delas Indias, con una tabla alphabetica delas prouin-*

cias, islas, puereos, ciudades, y nombres de conquistadores y varones principales que alla han pasado.

Antwerp, Iuan Steelsio, ff. 1–287.

–Allen 9. Publ. earlier at Saragossa, 1552–1553.

Manati, chap. 31, ff. 37–38.

Gomara, Francisco Lopez de

1606. *Histoire generale des Indes occidentales, et terres neuues, qui iusques à present ont esté decouuertes. Augmentee en ceste cinquiesme edition de la description de la nouvelle Espagne, & de la grande ville de Mexicque, autrement nommee, Tenuctilan. Composee en Espagnol par François Lopez de Gomara, & traduite en François par le S. de Genillé Marr. Fumée.*

Paris, Michel Sonnius, ff. 4, 1–485 + 19.

–Allen 40. Manati, chap. 31, f. 41 (2 pages).

Gomara, Francisco Lopez de

1749. *Historia de las Indias.* In: *Historiadores primitivos de las Indias occidentales, que juntó, traduxo en parte, y facó à luz, ilustrados con eruditas notas, y copiosos indices, el ilustrissimo Señor D. Andres Gonzalez Barcia, del Consejo, y camara de S. M. Divididos en tres tomos. Tomo I[-III].* Madrid (3 vols.).

–Allen 248. Manati, 2: chap. 31, p. 25. External characters and habits, one half page.

x Gomez, Edgardo D.

1983. Sea cows on stamps of the world.

Bio-Philately (Biology Unit, Amer. Topical Assoc.), 32(2): 121.

–Expands D.N. Riemer's (1982) list of sir. stamps to 28.

x Gómez Lluca, Federico

1919. El Mioceno marino de Muro (Mallorca).

Trab. Mus. Nac. Cienc. Nat. (Madrid), *Ser. Geol.*, No. 25: 1–75. 19 figs. 17 pls.

–Describes DP/5-M/3 and caudal vertebra of *Metaxytherium Cuvieri* from the Helvetian of Mallorca (54–59, 61, 64, pls. 16–17).

Gonçalves, Lopes

1904. *The Amazon: historical, chorographical and statistical outline up to the year 1903.... First Edition.*

New York, Hugo J. Hanf, 1–117 (Portuguese text); 1–112 (Engl. text). Tabs.

–Mention of "*manatus americanus*," 37 (Port. text), 34 (Engl. text). Statistics on production of manatee meat and mixira in the state of Amazonas, Brazil, tabs. 1, 6, 17, 18.

x Gondim, Joaquim

1938. *Etnografia indígena (estudos realizados em várias regiões do Amazonas, no periodo de 1921 a 1926). Volume I.*

Ceará (Brazil), Editora Fortaleza, 1–69. Illus.

–The Pirahan tribe's name for the manatee is given on p. 12 as *piráriên*.

Gonzáles, Anastasio Alfaro: SEE Alfaro Gonzáles, Anastasio.

Gonzales Bermudez, Fernando M.: SEE Sokolov, V.E. (ed.), 1986.

Goodman, Morris: SEE Czelusniak et al., 1990; De Jong et al.; Kleinschmidt et al., 1986; Miyamoto & Goodman, 1986; Shoshani et al.

Goodwin, George G.

1942. Mammals of Honduras.

Bull. Amer. Mus. Nat. Hist., 79(2): 107–195. May 29, 1942.

–Gen. acc. of *T. manatus* (187); no specimens from Honduras cited.

x Goodwin, George G.

1946a. The end of the great northern sea cow.

Nat. Hist. (New York), 55(2): 56–61. 5 figs. Feb. 1946.

–Detailed pop. acc. of Bering's voyage, the Bering Island fauna, and the sea cow, with excerpts from Steller's account. The artist's rendition of *Hydrodamalis*, though inaccurate in other respects, at least has the unusual merit of showing the forelimb as hook-shaped rather than flipperlike.

x Goodwin, George G.

1946b. Mammals of Costa Rica.

Bull. Amer. Mus. Nat. Hist., 87(5): 271–473. 50 figs. Pl. 17. 1 map. Dec. 31, 1946.

–Gen. acc. of sirs. and *T. manatus*, citing Costa Rican records from Frantzius (444–445).

Goodwin, George G.

1949. Whales, porpoises and sea cows. Part II. Toothed whales, porpoises, and sea cows or manatees.

Audubon Nature Bull., Ser. 19, No. 10: 1–4. 6 figs.

–Manatee, 4.

Goodwin, H.A.; & Goodwin, J.M.

1973. List of mammals which have become extinct or are possibly extinct since 1600.

IUCN Occas. Pap., 8: 1–21.

Goodwin, J.M.: SEE Goodwin, H.A., & Goodwin, J.M., 1973.

Goodwin, R.; & Thompson, P.

1991. Florida takes steps to make its waterways safer for manatees and boaters.

Florida Nat., 64(3): 11–12. Illus.

Gopalakrishnan, V.: SEE Jhingran & Gopalakrishnan, 1974.

Gordon, Bernard: SEE Gordon, Esther, & Gordon, Bernard, 1977.

- Gordon, Esther; & Gordon, Bernard
1977. *Once there was a giant sea cow*.
Henry Z. Walck.
—Children's book on *Hydrodamalis*.
- Gorgas, M.
1971. Der zoologische Garten von Rangun.
Zs. Kölner Zoo, 14(1): 25–32.
—Engl. summ.
- Gorry, J.D.
1963. Studies in the comparative anatomy of the ganglion basale of Meynert (Mammalia).
Acta Anat., 55(1–2): 51–104.
—Compares 35 species, including sirs.
- Gosse, Philip Henry
1860–1861. *The romance of natural history. Ser. 1 & 2*.
London.
—Many eds., 1841–1903.
- x Gosse, Philip Henry; & Hill, Richard
1851. *A naturalist's sojourn in Jamaica*.
London, Longman, Brown, Green & Longmans,
[v]–xxiv + 508. Frontisp. 7 pls.
—Observations of manatees in Jamaica (341–346,
348–349) and Haiti (346–347), with measurements,
details of appearance, and past prices in Jamaican
meat markets. Quotes Purchas on a tame manatee once
kept by natives of Hispaniola (347–348).
- Goto, Doji: SEE Kaneko & Goto, 1992.
Goto, Hidehiko: SEE Kimura, Sato, & Goto, 1978.
- D Goto, Masatoshi; & Kuga, Naoyuki
1984. Fossil elasmobranchs occurred with desmostylians
in Japan.
Monogr. Assoc. Geol. Collab. in Japan, 28:
45–49. 1 tab. May 1984.
—In Japanese; Engl. summ. See also T. Kamei
(1984).
- Gottlieb, Hedwig
1914. Die Antiklinie der Wirbelsäule der Säugetiere.
Morph. Jahrb., 49: 179–220. 2 figs. Pls. 8–11.
—Sirs., 190, 210.
- Gould, John
1863. *The mammals of Australia*.
London, printed for the author by Taylor &
Francis (3 vols. + atlas, 1845–1863).
—Dugongs, 1: xxxix–xxxx.
- Graef, Walter: SEE Ebner & Graef, 1977.
- Graham, Bob: SEE Appendix 1: *Florida Conservation
News*, Nov. 1979.
- Graham, Frank, Jr.
1979. A new hand in wildlife business.
Audubon, 81(3): 94–113. May 1979.
—Mention of *T. manatus*.
- x Graham, Samuel Cecil
1909. Captive sea cow and 'gator.
Forest & Stream, 72(11): 413. 2 figs. Mar. 13,
1909.
—Pop. acc. of a manatee kept by Mr. S. Hendry in
a private garden at Indian River, Florida; mentions
high manatee mortality “in the unprecedented
cold” of Dec. 1894–Feb. 1895.
- Grainger, D.
1978. *Animals in peril. A guide to the endangered
animals of Canada and the United States*.
Toronto, Pagurian Press Ltd., 1–192. Illus.
- Grandidier, Alfred; & Grandidier, Guillaume
1928. *Histoire, physique, naturelle et politique de
Madagascar. Tome 4. Ethnographie de Madagas-
car*.
Paris, Impr. Nationale, 4 vols.
—Sirs., 4: 245, fn. 1.
- Grandstaff, Barbara Smith: SEE Gallagher et al., 1989.
- Grant, C.W.
1840. Memoir to illustrate a geological map of Cutch.
Trans. Geol. Soc. London, (2)5(2): 289–326. Pls.
20–26.
—?Reprinted: *Madras Jour. Lit. Sci.*, 12: 309–
371? Reports sir. rib fragments, probably from
rocks of the Chattian-Aquitania Aida Stage.
According to Sahni & Mishra (1975: 35), this was
the first record of fossil sirs. in India.
- Gratiolet, L.
1901. Note sur les lamantins du Niger.
Bull. Mus. Natl. Hist. Nat. (Paris), 1901(6):
248–250.
- Grauwiler, Jules
1965. *Herz und Kreislauf der Säugetiere*.
Basel, Birkhauser Verlag, 1–191. Illus.
- Graves, Brent M.: SEE Mackay-Sim et al., 1985.
- Gray, F.; & Zann, Leon (eds.)
1988. Traditional knowledge of the marine environment
in northern Australia. Proceedings of a workshop
held in Townsville, Australia, 29 and 30 July
1985.
*Great Barrier Reef Marine Park Authority Work-
shop Ser.*, No. 8: x + 196. Illus.
—Includes an Executive Summary; 14 papers (7 of
which, by A. Smith, Davis, Bradley, Prince,
Marsh, Baldwin, and G. Anderson, respectively,
are cited in this bibliography); and excerpts
compiled by the eds. from oral presentations and
discussions by Aboriginal and Islander represen-
tatives (42–53). These latter excerpts include
numerous interesting items of dugong lore. Con-
cludes with recommendations, summary, and list
of participants (188–196).
- Gray, Jane
1988. Evolution of the freshwater ecosystem: the fossil
record.

Palaeogeogr. Palaeoclim. Palaeoecol., 62(1-4): 1-214. Jan. 1988.

- x Gray, John Edward
1821. On the natural arrangement of vertebrate animals. *London Med. Reposit.*, 15(88): 296-310. Apr. 1, 1821? [*vide* Husar]
-Includes and diagnoses, in his classification of the Class Cetacea, Order Herbivorae (309), the families Manatidae (new family, comprising *Manatus* or *Trichechus Manatus*) and Dugongidae (new family, comprising *Dugongidus* [new genus] or *Trichechus Dugong*).
- x Gray, John Edward
1825. An outline of an attempt at the disposition of Mammalia into tribes and families, with a list of the genera apparently appertaining to each tribe. *Ann. Philos.*, 26 (= n.s. 10), (5): 337-344. Nov. 1825.
-Tentatively includes in the Order Cetae the Family Manatidae with genus *Manatus* (340, 344), and the (new) Family Halicoridae with genera *Halicora* (sic) and *Stellerus* (341, 344).
- Gray, John Edward
1827. Mammalia. In: E. Griffith (ed.), *The animal kingdom with its organization by the Baron Cuvier*. London, G.B. Whittaker.
-Dugong, 379-386.
- Gray, John Edward
1830-1835. *Illustrations of Indian zoology; chiefly selected from the collection of Major-General Hardwicke*. London, Treuttel, Wurtz, Treuttel, Jun. & Richter, 2 vols. 202 pls.
-Depicts *Halicore dugong*, 2: pl. 23.
- Gray, John Edward
1850. *Catalogue of the specimens of Mammalia in the collection of the British Museum. Part I. Cetacea*. London, Trustees of the Brit. Mus., xii + 153. 8 pls.
-Sirs., 139-144.
- Gray, John Edward
1857. Observations on the species of the genus *Manatus*. *Proc. Zool. Soc. London*, 25: 59-61. Read Apr. 28, 1857.
- Gray, John Edward
1861. Zoological notes on perusing Mr. Du Chaillu's "Adventures in Equatorial Africa." *Ann. Mag. Nat. Hist.*, (3)8: 60-65. July 1861.
- Gray, John Edward
1862. Observations on Mr. Du Chaillu's paper on "The new species of mammals" discovered by him in western Equatorial Africa.
- Proc. Zool. Soc. London*, 1861(3): 273-278. Apr. 1862.
- Gray, John Edward
1864. On the Cetacea which have been observed in the seas surrounding the British Isles. *Proc. Zool. Soc. London*, 1864(2): 195-248. 24 figs. Nov. 1864 (read May 24, 1864).
-Agrees that Stewart's (1801) animal was a manatee (247-248).
- x Gray, John Edward
1865. On the species of manatees (*Manatus*), and on the difficulty of distinguishing such species by osteological characters. *Ann. Mag. Nat. Hist.*, (3)15(86): 130-139. Feb. 1865.
-Reviews in detail the osteological material described by earlier authors, and concludes from study of the available samples that *M. senegalensis* and *M. americanus* are distinct and the only species existing in West Africa and the Caribbean, respectively.
- Gray, John Edward
1866. *Catalogue of seals and whales in the British Museum*. Ed. 2. London, Trustees of the Brit. Mus., viii + 402. 101 figs.
-Sirs., 356-366.
- Gray, W.B.
1960. *Creatures of the sea*. New York, Wilfred Funk Inc., 1-216.
-Capture of a Florida manatee for exhibition (24-27, 156-165, 202-209).
- Grayson, Stephen: SEE Elias et al., 1987.
- D Green, H.L.H.H.
1937. The development and morphology of the teeth of *Ornithorhynchus*. *Philos. Trans. Roy. Soc. London* (B), 228: 367-420. 14 figs. 18 pls.
- Greene, H. Gary: SEE Addicott & Greene, 1974.
- Greenwell, J. Richard: SEE ALSO Wagner et al., 1983.
- x Greenwell, J. Richard
1985. The ri: zoology and folklore (response to Sibert, Ellis, and Britton). *Cryptozoology*, 3: 151-154. Apr. 1985.
-Responds to comments on the "ri" of New Ireland, leaning toward its identification as *Neophocaena* or some other small cetacean. Also discusses the possible sir. or cetacean origins of mermaid legends.
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-Reviews the history of the controversy over the "ri" of New Ireland, and praises the study of T.R.

Williams (1986) as “the first time that a mythified animal such as a ‘mermaid’ has been located first-hand and identified zoologically”—in this case, as a dugong.

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—Describes a previously lost partial skull from Bone Valley, Florida, photographs of which had been published by Simpson (1932a: 452, fig. 12).
- Gregory, William King
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- Gregory, William King
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—Abstr.: *Sci. Prog.*, 16: 213. *Sirs.*, 184, 245.
- D Gregory, William King
1951. *Evolution emerging: A survey of changing patterns from primeval life to man*. New York, Macmillan (2 vols.), Vol. 1: xxvi + 736 (text); Vol. 2: viii + 1013 (illustrations).
—*Sirs.*, 1: 426–428; 2: 800–803.
- x Grekov, V.I.
1958. Novye isvestiya o geograficheskom rasprostraneniі vymersheі morskoi korovy (*Hydrodamalis stelleri*). [New information on the geographic distribution of the extinct sea cow (*Hydrodamalis stelleri*).] *Izvest. Akad. Nauk SSSR, Ser. Geogr.*, 1958(2): 95–100. 1 fig.
—Discusses earlier studies of the topic, and quotes eighteenth-century testimony by Kul’kov and Shalaurov attesting to the presence of sea cows in the Near Islands and on the north coast of Siberia, respectively.
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- Grevé, Carl A.
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—See also Anon. (1911).
- Grew, Nehemiah
1681. *Musaeum Regalis Societatis. Or a catalogue & description of the natural and artificial rarities belonging to the Royal Society and preserved at Gresham Colledge.... Whereunto is subjoynd the comparative anatomy of stomachs and guts*. London, printed for the author by W. Rawlins, 386 + 42. 31 pls.
—Allen 120. *Sirs.*, etc., 81–103.
- Griffith, Edward; et al.
1827–1834. *The animal kingdom arranged in conformity with its organization, by the Baron Cuvier ... with additional descriptions of all the species hitherto named, and of many not before noticed*. London, Geo. B. Whittaker, 15 vols. Illus.
—The Mammalia constitute vols. 1–4 (1827). Includes *Manatus senegalensis*.
- Grigorescu, Dan
1967. Asupra prezenței unor fragmente scheletice de sirenide din Paleogenul de la Albești-Muscel. (La présence de quelques fragments squelettiques de siréniens au Paléogène d’Albești-Muscel.) *Anal. Univ. București, Ser. Științ. Nat. (Geol.-Geogr.)*, 16(1): 73–78. 2 pls.
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- Grillet, Jean; & Bechamel, Francis
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—Allen 143. See also Acuña (1698). Harpooning and export of manatee, 63.
- x Grimwood, Ian R.
1968. Endangered mammals in Peru. *Oryx*, 9(6): 411–421. Pls. 8–10. Dec. 1968.
—Summ. of Grimwood (1969). *T. inunguis*, 418.
- x Grimwood, Ian R.
1969. Notes on the distribution and status of some Peruvian mammals: 1968. *Amer. Comm. Internat. Wild Life Protect. & New York Zool. Soc., Spec. Publ.*, No. 21: 1–89. Illus.

- Summ.: Grimwood (1968). Describes the distribution of *T. inunguis* in Peru, noting its severe depletion by hunting and its persistence in the proposed Rio Samiria and Rio Pacaya preserves. Reports that two traders brought 10,000 kg of dried manatee meat from the Rio Putumayo in 1958 (61).
- Grinnell, S.W.: SEE Irving et al., 1941.
- Grive, J.
1964. Considérée comme éteinte au 18e siècle, la rhytine vivrait encore.
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–Discusses the possible survival of *Hydrodamalis*.
- Gromova, Vera Isaakovna
1950. Opredelitel' mlekopitayushchikh SSSR po kostyam skeleta. Vypusk 1. Opredelitel' pokrupnym trubchatym kostyam. Tekst i al'bom risunkov. [Key to the mammals of the USSR based on skeletal bones. Issue 1. Key based on the large tubular bones. Text and album of drawings.]
Tr. Kom. Izuch. Chetvertichn. Perioda, 9(1A): 1–240 (text), 9(1B): 1–108 (album).
–Includes *Hydrodamalis stelleri*.
- Grube, E.
1873. Über die pflanzenfressenden Cetaceen.
50. Jahresber. Schles. Ges. Vaterl. Kult. (1872), 1873: 49–51.
- Grubel da Silva, Kleber: SEE ALSO Pinto de Lima et al., 1992a, 1992b.
- Grubel da Silva, Kleber; Paludo, Danielle; Oliveira, Eunice Maria Almeida de; Pinto de Lima, Régis; & Soavinski, Ricardo José
1992. Distribuição e ocorrência do peixe-boi marinho (*Trichechus manatus*) no estuário do Rio Mamanaguape, Paraíba—Brasil.
Peixe-Boi, 1(1): 6–18. 2 tabs. 3 figs.
- Grubel da Silva, Kleber; Soavinski, Ricardo José; Oliveira, Eunice Maria Almeida de; & Kohler, Maria Cláudia M.
1992. Alimentação, crescimento e comportamento em cativeiro de um filhote órfão de peixe-boi marinho (*Trichechus manatus*, Linnaeus, 1758).
Peixe-Boi, 1(1): 33–41. 2 tabs.
- Gruchet, H.
1973. La capture d'un dugong dans le canal de Mozambique.
Info-Nature, No. 9: 46–48.
- x Gruvel, A.
1903. Revision des Cirrhipèdes appartenant à la collection du Museum d'Histoire Naturelle.... Operculés.
Nouv. Arch. Mus. Hist. Nat. (4)5: 95–170. 4 pls.
–Describes a barnacle, "*Chelonobia*" [properly *Chelonibia*] *manati*, n.sp., from the skin of a *Manatus senegalensis* from the Congo (116–120, pls. 2, 4).
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1921. Exposé d'un voeu pour la creation de reserves de tortues marines et dugongs sur les côtes de Madagascar.
Commn. Soc. Nat. Acclimation France.
- Gruvel, A.
1922. Voeu pour la protection des tortues marines et des dugongs de Madagascar. Sur les longoustes et les langoustes et les huitres perlières de Madagascar.
Bull. Soc. Nat. Acclimation France, No. 4: 74–76. Apr. 1922.
- Grzimek, Bernhard: SEE Thenius et al., 1987.
- Gudernatsch, J.F.
1908a. Zur Anatomie und Histologie des Verdauungstraktes von *Halicore Dugong* Erxl. I. Mundhöhle.
Morph. Jahrb., 37(4): 586–613. 19 figs. Pl. 14. Jan. 7, 1908.
–Abstr.: *Amer. Naturalist*, 41(490): 665, 1907?
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1908b. *Manatus latirostris* Harl. Biologische und morphologische Beiträge.
Zool. Jahrb., Abt. Syst., 27(3): 225–236. 3 figs. Pl. 9.
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1909. Zur Anatomie und Histologie des Verdauungstraktes der Sirenia. II. Die Zunge von *Manatus latirostris* Harl.
Morph. Jahrb., 40: 184–194. 3 figs. 1 pl.
- Guérin, Claude: SEE Prieur & Guérin, 1991.
- Guérin-Méneville, Félix-Édouard
1829–1844. *Iconographie du Règne Animal de G. Cuvier; ou représentation d'après nature de l'une des espèces les plus remarquables, et souvent non encore figurées, de chaque genre d'animaux. Avec un text descriptif mis au courant de la science. Ouvrage pouvant servir d'atlas à tous les traités de zoologie.*
Paris & London, J. B. Baillièrre, 3 vols. + atlas.
–Depicts *Manatus americanus* and *Halicore dugong*, pl. 46.
- Guérin-Méneville, Félix-Édouard
1841. [Remarks concerning de Blainville's report of a memoir by de Christol on *Metaxytherium*, etc.]
Rev. Mag. Zool. (Paris), 1841: 86–91.
–See Blainville, H.M.D. de (1841).
- Guerrero, R.: SEE Fernandez Badillo et al., 1988.
- Guettard, Jean-Étienne
1768. *Mémoires sur différentes parties des sciences et arts*. Tome 1.

Paris, L. Prault, cxxvi + 439. Pls.

–Discusses a fossil “vache marine” (7, pls. 6, 8), later dubbed *Manatus guettardi* by de Blainville (1844) (= *Halitherium schinzii*).

x Guimarães, João Joaquim da Silva

1854. *Diccionario da lingua geral dos Indios do Brasil*, ... Bahia, Typ. de Camillo de Lellis Masson & Ca.: [v] + 59.

–Name for the manatee in *lingua geral* given on p. 45: {“Peixe boi, Goarabã.”}

Guise, R.E.

1899. On the tribes inhabiting the mouth of the Wanigela River, New Guinea.

Jour. Anthropol. Inst. Great Britain & Ireland, 28(= n.s. 1): 205–219. Read [by T.V. Holmes] Nov. 8, 1898.

Gulliver, G.

1878. Measurements of the red blood corpuscles of the American manatee (*M. latirostris*) and *Beluga leucas*.

Ann. Mag. Nat. Hist., (5)2: 172–174.

Gumilla, Joseph

1745. *El Orinoco ilustrado, y defendido, historia natural, civil, y geographica de este gran rio, y de sus caudolosos vertientes: gobierno, usos, y costumbres de los Indios sus habitadores, con neuvas, y utiles noticias de animales, arboles, frutos, aceytes, refinias, yervas, y raices medicinales; y sobre todo, se hallarán convetsiones muy singulares à N. Santa Fé, y casos de mucha edificacion... Segunda impresion, revista y augmentada por su mismo autor, y dividida en dos partes*.

Madrid, Manuel Fernandez (2 vols.), Vol. 1: 1–403. Pls. 1 map.

–Allen 231. Various later eds. Manati, 1, chap. 21: 225–228 or 319–327?, pl. 2. Gives an interesting description of the morphology, behavior, and hunting of *Trichechus manatus* in the Orinoco region. Gumilla’s account is particularly noteworthy for his eyewitness observation of a female manatee with twin fetuses; this was the first, and for over two centuries the only, evidence of twinning in sirenians.

Gumilla, Joseph

1758. *Histoire naturelle, civile et geographique de L’Orenoque. Et des principales rivières qui s’y jettent. Dans laquelle on traite du gouvernement, des usages & des coùtumes des Indiens qui l’habitent, des animaux, des arbres des fruits, des résines, des herbes & des racines medicinales qui naissent dans le país. On y a joint le détail de plusieurs conversions remarquables & édifiantes... Traduite de l’Espagnol sur la seconde edition, par M. Eidous...*

Avignon, Veuve de F. Girard; Marseille, D. Sibié

& Jean Mossi (3 vols.).

–Allen 278. Transl. of Gumilla (1745). Manati, 2, chap. 21: 43–55.

Gumilla, Joseph

1791. *Historia natural, civil y geographica de las naciones situadas en las riveras del Rio Orinoco... Nueva impresion: mucho mas correcta que las anteriores, y adornada con ocho láminas finas, que manifiestan las costumbres y ritos de aquellos Americanos. Corregido por el P. Ignacio Obregón...*

Barcelona, Impr. de Carlos Gibert y Tutó (2 vols.), Vol. 1: xvi + 360. Pls. 1 map. Vol. 2: 1–352.

–Allen 416. Manati, 1, chap. 21: 281–289.

Gundlach, Juan

1866. Revista y catalogo de los mamiferos cubanos. *Repert. Fisico-nat. de Cuba*, 2(2): 56.

Gundlach, Juan

1877. *Contribucion à la mamalogia Cubana*.

Havana, Impr. G. Montiel y Comp., 1–53.

–Also publ. in *Ann. Real Acad. Cienc. Méd. Fís. Nat. Habana*, 1877. Engl. transl.: Gundlach (1895). Mention of *Manatus*, 49–50.

x Gundlach, Juan

1895. Notes on Cuban mammals.

Abstr. Proc. Linn. Soc. New York, No. 7: 13–20.

–Abridged transl. of Gundlach (1877). P. 20: {“I have not observed or seen the maritime mammals. There have been observed: ... 2. *Manatus* -Manati; lives in different localities.”}

x Gunter, Gordon

1941a. Occurrence of the manatee in the United States, with records from Texas.

Jour. Mamm., 22(1): 60–64. Feb. 14, 1941.

–Reviews miscellaneous records of manatees from Texas, Louisiana, and northern Mexico, and comments on their tooth-row structure, bone density, temperature tolerance, and distribution. Concludes that manatees in Texas are strays from Mexico and that a temperature barrier prevents a northward extension of their range.

x Gunter, Gordon

1941b. The manatee, a rare Texas mammal.

Proc. Texas Acad. Sci., 24: 12–13.

–Essentially an abstr. of Gunter (1941a).

x Gunter, Gordon

1942. Further miscellaneous notes on American manatees.

Jour. Mamm., 23(1): 89–90. Feb. 14, 1942.

–Discusses specimens from Texas, Florida, and elsewhere, and their temperature tolerance and distribution.

Gunter, Gordon

1944. Texas manatees.

- Texas Game & Fish.*, 2(9): 9, 11. Aug. 1944.
- x Gunter, Gordon
 1954. Mammals of the Gulf of Mexico. In: P.S. Galtsoff (coordinator), Gulf of Mexico, its origin, waters, and marine life. *Fishery Bull. Fish & Wildl. Serv.*, Vol. 55 (= *Fishery Bull.*, 89): 543–551.
 –Account of the distribution and habits of *T. manatus* (543–545). Includes an excerpt from an unpubl. MS. by C.M. Scammon on two captive Florida manatees observed at Key West in 1880 (544–545).
- x Gunter, Gordon; & Corcoran, Gerald
 1981. Mississippi manatees. *Gulf Res. Rept.*, 7(1): 97–99.
 –Argues against recognition of the separate subspecies *T. m. manatus* and *T. m. latirostris*; summarizes manatee records on the northern Gulf Coast and reports new Mississippi occurrences in 1979 and 1980 (the first reports from this state).
- x Gunter, Gordon; & Perry, Allison
 1983. A 1981 sighting of *Trichechus manatus* in Mississippi. *Jour. Mamm.*, 64(3): 513. Aug. 18, 1983.
 –Reports a manatee caught in a shrimp trawl in the Mississippi Sound on Dec. 3, 1981.
- Gupta, A.N.: SEE Sharma & Gupta, 1971.
- x Gut, H. James
 1939. Hitherto unrecorded vertebrate fossil localities in south-central Florida. *Proc. Florida Acad. Sci.*, 1938(3): 50–53.
 –Lists "*Trichechus* sp." from the following Pleistocene localities: Sanford and the Wekiva River, Seminole County; Seminole Springs, Lake County; and Rock Springs, Orange County.
- Guyana, National Science Research Council: SEE Anonymous, 1973a, 1974c.
- Győrfyné-Mottl, Maria: SEE Mottl, Mária von.

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- Hackley, Richard S.
1822. *Titles and legal opinions thereon, of lands in East Florida belonging to Richard S. Hackley, Esq.* Brooklyne (New York), G.L. Birch.
–Sirs., 100.
- Haddad, Kenneth D.: SEE Reynolds & Haddad, 1990; Weigle & Haddad, 1990.
- Haddon, Alfred Cort
1890. The ethnography of the Western Tribe of Torres Straits.
Jour. Anthropol. Inst., 19: 297.
–Illustrates Mabuiag and Badu women with dugong totems cut into their backs.
- Haddon, Alfred Cort (ed.)
1901–1935. *Reports of the Cambridge Anthropological Expedition to Torres Straits.* Cambridge, Cambridge Univ. Press (6 vols. in 7).
–Repr.: New York, Johnson Repr. Corp., 1971. Sirs., vols. 4–6 (1912, 1904, 1908, respectively).
- Haddon, Alfred Cort
1932. *Headhunters: black, white, and brown.* London, Watts & Co. (The Thinker's Library No. 26; abridged ed.), 1–244. Illus.
–Clan on Mabuiag Is., Torres Straits, named after the dugong (74–77); dugong and turtle fishing (148–157).
- Haddon, Alfred Cort
1977. *The decorative art of British New Guinea.* New York, AMS Press, 1–278.
–Reprint of 1894 ed. Dugong, 22, 27, 28.
- Haeckel, Ernst
1866. *Generelle Morphologie der Organismen. Allgemeine Grundzüge der organischen Formen-Wissenschaft, mechanisch begründet durch die von Charles Darwin reformierte Deszendenz-Theorie. II. Allgemeine Entwicklungsgeschichte der Organismen. Kritische Grundzüge der mechanischen Wissenschaft von den entstehenden Formen der Organismen, begründet durch die Deszendenz-Theorie.* Berlin, clx + 462. 9 pls.
–Sirs., vol. 2, tab. 8.
- Haeckel, Ernst
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–First ed. Engl. ed., 1876; ed. 10, 1902. Sirs., 545, 556?
- Haeckel, Ernst
1895. *Systematische Phylogenie der Wirbelthiere (Vertebrata). Dritter Theil des Entwurfs einer systematischen Phylogenie.* Berlin: xx + 660.
–Sirs., 567.
- Haffner, Konstantin von
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Verh. Deutsch. Zool. Ges., 1956 (*Zool. Anz. Supplementband 20*): 312–316. 2 figs.
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- Hagen, Victor W. von
1940. The Mosquito Coast of Honduras and its inhabitants.
Geogr. Review, 30: 238–259.
- Hagey, L.R.: SEE Kuroki et al., 1988.
- Hagmann, Gottfried: SEE Goeldi & Hagmann, 1904.
- Hahn, Eduard
1896. *Die Haustiere und ihre Beziehungen zur Wirtschaft des Menschen. Eine geographische Studie.* Leipzig, Duncker & Humblot, x + 581. 1 map.
–Sirs., 24–25.
- x Haigh, M.D.
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Irrigation & Drainage Systems, 5(4): 339–349. 1 tab. 1 fig. 2 pls.
–Summarizes the experience gained in Guyana and recommends guidelines for manatee use in countries with similar conditions. Recommends in particular a population density between 0.5 and 1.4 manatees per hectare of water surface in turbid water, depending on whether they are used for maintenance or initial clearing of the waterway, respectively.
- Haimendorff, Christoph Führer von: SEE Führer von Haimendorff, Christoph.
- Hale, Herbert M.; & Tindale, Norman B.
1934. Aborigines of Princess Charlotte Bay, North Queensland. Part II.

- Recs. South Austral. Mus.*, 5(2): 117–172. Figs. 140–250.
–Rock paintings of ?dugongs, 149, 150, 152–153; vernacular names, 162; dugong skulls, 127.
- Hale, Wendy: SEE Delaney et al., 1985.
- Haley, Delphine
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–Adapted from Haley (1978a).
- x Haley, Delphine
1980. The great northern sea cow: Steller's gentle siren. *Oceans*, 13(5): 7–11. 7 figs. Sep.–Oct. 1980.
–Pop. acc. of *Hydrodamalis gigas* and its evolution, with a new reconstruction of the animal by Dugald Stermer and D. Domning.
- x Hall, Alice J.
1984. Man and manatee: can we live together? *Natl. Geogr. Mag.*, 166(3): 400–413. Cover photo + 15 figs. Sep. 1984.
–Portfolio of excellent underwater photos of manatees at Crystal River and Blue Spring, Florida.
- Hall, B.K.: SEE Miyake et al., 1992.
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1963. The mammals of Veracruz. *Univ. Kansas Publ. Mus. Nat. Hist.*, 14(4): 167–363.
–Sirs., 348–349.
- x Hall, E.S., Jr.
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–Reports a rib identified as that of “Steller's sea cow,” with man-made cuts and gashes, found in a living site together with fossil mammoth and bison fragments (23, 34, 52). The site is well north of Bering Strait. See also Whitmore & Gard (1977).
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–Japanese transl.: *Jour. Fossil Research*, 18(2): 65–68, illus., Dec. 1985.
- Hamann, Richard: SEE ALSO Gluckman & Hamann, 1983.
- x Hamann, Richard
1983a. Legal review regarding construction of marinas and docks and dredge and fill in manatee habitat and adjacent wetlands. In: J.M. Packard (ed.), Proposed research/management plan for Crystal River manatees. Volume III. Compendium (q.v.). *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 3 (iii + 346): 185–232. 7 figs. Dec. 1983.
–Discusses the potential effects on manatees of construction and dredging, and the relevant powers and responsibilities of local, state, and federal governments in Florida, and makes recommendations for improving manatee protection, especially in the Crystal River area.
- x Hamann, Richard
1983b. Legal review regarding water demands influencing flow of springs that are winter refuges for manatees. In: J.M. Packard (ed.), Proposed research/management plan for Crystal River manatees. Volume III. Compendium (q.v.). *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 3 (iii + 346): 302–309. Dec. 1983.
–Reviews Florida statutes regarding groundwater resources, and recommends regulatory actions to protect the flow of springs feeding Crystal River.
- x Hamann, Richard
1983c. Protection afforded manatees and their habitat by the Endangered Species Act and the Marine Mammal Protection Act. In: J.M. Packard (ed.), Proposed research/management plan for Crystal River manatees. Volume III. Compendium (q.v.). *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 3 (iii + 346): 310–316. Dec. 1983.
–Analyzes the provisions of these two federal acts that are relevant to Florida manatees, and discusses the meaning and implications of the term “take” in these acts.
- Hamidun, Mukhtar Walid
1952. *Précis sur la Mauritanie*. Saint Louis (Senegal), Inst. Fondam. Afr. Noire.
–Sirs., 36, 37.
- Hamilton, R.: SEE McCabe et al., 1978.
- Hamilton, Robert
1833. *The natural history of the amphibious Carnivora, including the walrus and seals, also of the*

herbivorous Cetacea, &c.

?Edinburgh, ?W.H. Lizars: 1–336. Figs. 31 pls.
 –Later eds.: Vol. 28 in W. Jardine, *The naturalist's library*, Edinburgh, W.H. Lizars, 1839; Vol. 6 in 1837 (also 1843?) ed. of same series, Edinburgh, Lizars; London, S. Highley; Dublin, W. Curry, Jun., & Co.; Vol. 25 in 1860 ed. of same series, London, Henry G. Bohn. Sirs., 284–312; female “manatee” and calf stranded near Dieppe, 298. Sir. material on pp. 300–306 of 1860 ed.; includes pl. 27 showing “*Dugungus indicus*.”

Hamilton, W.R.: SEE Savage & Hamilton, 1973.

x Hamilton, William John, Jr.

1941. Notes on some mammals of Lee County, Florida. *Amer. Midland Naturalist*, 25(3): 686–691. 1 fig. May 1941.
 –Reports an additional manatee that was killed in the 1940 freeze described by Cahn (1940); discusses tooth replacement and possible seasonal migrations and breeding. Another “natural” death is reported but not further elaborated on (687, 690–691).

Hamilton’s obituary in *Jour. Mamm.*, 73(3): 693–706, Aug. 21, 1992, adds that the manatee skull collected by his wife and illustrated here was removed from the decomposing carcass “while bobbing around in a small boat in the middle of the Caloosahatchee River” (695).

Hammond, D.: SEE Allen et al., 1976.

Hanif, M.; & Poonai, N.O.

1968. Wildlife conservation in Guyana. *Man & Nature Series* (Coconut Grove, Florida, Field Res. Projects), No. 8.
 –Describes *T. manatus* and hunting for its meat.

x Hanitsch, R.

1908. *Guide to the zoological collections of the Raffles Museum, Singapore*. Singapore, Straits Times Press, Ltd., 1–112. 21 pls.
 –Brief account of sirs. and of a “duyong” captured in North Borneo in 1895 and kept alive at the Museum for several weeks (13). This may have been the first recorded dugong kept in captivity.

Hanna, George Dallas: SEE ALSO Anonymous, 1926.

xD Hanna, George Dallas

1925. Miocene marine vertebrates in Kern County, California. *Science*, (2)61(1568): 71–72. Jan. 16, 1925.
 –P. 72: {“These [bones from Sharktooth Hill] are of many groups of vertebrates, sirenians and perhaps walruses being represented in addition to those mentioned above.”} These “sirenians” were certainly desmostylians.

xD Hanna, George Dallas

1930. Geology of Shark-tooth Hill, Kern County, California. *Proc. Calif. Acad. Sci.*, (4)19(7): 65–83. 3 figs. Jul. 15, 1930.
 –P. 70: {“These [specimens from Sharktooth Hill] consisted of bones of dolphins [sic], porpoises, seals, sea lions, whales and sea cows.”} The “sea cows” in this statement (based on a letter of Mr. Charles Morrice, Dec. 10, 1929) were *Desmostylus*.

xD Hanna, George Dallas

1933. *Desmostylus* tooth dredged in Monterey Bay. [Abstr.] *Bull. Geol. Soc. Amer.*, 43: 291.
 –P. 291: {[“Messrs. Allyn G. Smith, John L. Nicholson and the writer did some dredging in Monterey Bay during the summer of 1930 and among other interesting objects obtained there was found a fragment of a cone of a *Desmostylus* tooth. The significance of the occurrence at this locality is discussed.”]}

Hanneberg, Peter

1984. Seychelles: refuge for a threatened nature. *Fauna Flora* (Stockholm), 79(6): 261–272.
 –In Swedish; Engl. summ.

xD Hannibal, Harold

1922. Notes on Tertiary sirenians of the genus *Desmostylus*. *Jour. Mamm.*, 3(4): 238–240. 2 pls. Nov. 2, 1922.
 –Briefly reviews the species of *Desmostylus*, and proposes the name *D. cymatias* for Merriam’s (1906, 1911) specimens.

x Hanson, Frank Blair

1919. The ontogeny and phylogeny of the sternum. *Amer. Jour. Anat.*, 26(1): 41–115. 49 figs. in 12 pls. Sep. 1919.
 –Remarks on the ribs and sternum of *Manatus americanus* (81, 111, fig. 40).

Hanström, B.

1965. Wulzen’s cone, a capriciously occurring lobe in the mammalian hypophysis. *Acta Univ. Lund.*, (2)1965(11): 1–15. 11 figs.
 –Describes the structure in *Trichechus manatus latirostris*.

xD Hanzawa, Shoshiro; Asano, Kiyoshi; & Takai, Fuyuji

1961. Catalogue of type-specimens of fossils in Japan. *Pal. Soc. Japan 25th Anniv. Vol.*: vii + 422. Feb. 15, 1961.
 –Lists (355) the localities and locations of the types of *Cornwallius tabatai* Tokunaga, 1939; *Desmostylella typica* Nagao, 1937; *Desmostylus japonicus* Tokunaga & Iwasaki, 1914; *D. minor* Nagao, 1937; *D. mirabilis* Nagao, 1935; and *D. cf.*

- mirabilis*, Nagao, 1936.
- Happold, D.C.D.
1973. The distribution of large mammals in West Africa. *Mammalia*, 37(1): 88–93.
- Happold, D.C.D.
1975. *Large mammals of West Africa*. London, Longman Group Ltd.
- Hara, Motonobu: SEE Tabuchi et al., 1974.
- Harcourt, Robert
1613. *A relation of a voyage to Gviana. Describing the climat, scituation, fertilitie, prouisions and commodities of that country, containing seuen prouinces, and other signiorities within that territory: together, with the manners, customes, behaiours, and dispositions of the people*. London, W. Welby, 8 + 71.
—Other eds.: London, 1626, 1928; Dutch transl., Leiden, 1707, ?1710. Manatee, p. 13 in 1707 ed. (entitled *Scheeps-togt na Gujana, gedaan in 't Jaar 1608...*).
- Hardisky, M.
1979. Marsh habitat development: A feasible alternative to dredged material disposal. *Georgia Coastline*, 1(16): 5–6.
- Harkness, D.R.: SEE White et al., 1976, 1977.
- Harlan, C.F.: SEE Quiring & Harlan, 1953.
- x Harlan, Richard
1824. On a species of lamantin resembling the *Manatus senegalensis* (Cuvier) inhabiting the coast of East Florida. *Jour. Acad. Nat. Sci. Philadelphia*, 3(2): 390–394. Pl. 13. May 1824 (read Mar. 30, 1824).
—Allen 643. Abstrs.: *Edinb. Jour. Sci.*, 2: 186, 1825 (Allen 658); A.G. Desmarest, *Férussac's Bull. Sci. Nat.*, 4: 106–108, 1825 (Allen 656). ?Repr.: Harlan (1835: 68–71). On the basis of “two skulls, two ribs, and a strip of skin,” provisionally proposes the name *Manatus latirostris* for the Florida manatee, in case external differences should be found sufficient to separate it from *M. senegalensis*! Harlan’s specimens were collected by a Dr. Burrows (or Burroughs; see K.F. Koopman, 1976) “on the Coast of East Florida, in the year 1822.” Harlan also quotes from Burrows a few lines of information “obtained from the natives” concerning the manatee (392).
- x Harlan, Richard
1825a. *Fauna Americana: being a description of the mammiferous animals inhabiting North America*. Philadelphia, Anthony Finley, x + 11–320.
—Allen 659. A revised version appeared in Harlan (1835: 78–83?). Describes *Manatus latirostris* and *Stellerus borealis* (274–281).
- x Harlan, Richard
1825b. Notice of the Plesiosaurus and other fossil reliquiae, from the State of New Jersey. *Jour. Acad. Nat. Sci. Philadelphia*, 4: 232–236. Pl. 14. Read Sep. 7, 1824.
—P. 236: {“There is also deposited in the Cabinet of the Academy, from the western shore of Maryland, a cervical and a caudal vertebra of a gigantic species of fossil *Manatus*; the vertical diameter of the former is nine inches and a half; the transverse diameter eleven inches. A fossil rib of the *Manatus*, was also discovered by Mr. Finch, at the same locality.”} These remains were the basis for “*Manatus giganteus*” DeKay, 1842; however, at least the vertebrae were cetacean rather than sirenian (see Kellogg, 1966: 66).
- Harlan, Richard
1834. Critical notices of various organic remains hitherto discovered in North America. *Trans. Geol. Soc. Pennsylvania*, 1(1): 46–112. Aug. 1834.
—Allen 820. Repr.: Harlan (1835: 253–313). ?Abstr. in *James. Edinb. N. Phil. Jour.*, 17: 342–362, 1834? Abstr.: *Neues Jahrb. Min.*, 1836: 99–109 (Allen 896; in German; *Manatus*, 104). Mention of *Manatus*, 73 (278 in 1835 repr.).
- Harlan, Richard
1835. *Medical and physical researches: or original memoirs in medicine, surgery, physiology, geology, zoology, and comparative anatomy*. Philadelphia, printed by Lydia R. Bailey, xxxix + 9–653. 160 figs.
—Allen 852. Reprints Harlan’s earlier works, including the following: 1824 (68–71), 1825a (78–83; revised), 1834 (253–313) (382–385?).
- x Harling, Richard
1993. Siren sex life: how a dugong impresses. *BBC Wildlife*, 11(12): 10–11. 1 fig. Dec. 1993.
—Brief pop. acc. of Paul Anderson’s discovery of lekking behavior among dugongs at Shark Bay, Australia.
- Harney, William Edward
1946. *North of 23 degrees; ramblings in Northern Australia*. Sydney, Australasian Publ. Co., 1–265. Illus.
—Describes a traditional dugong hunt in the Sir Edward Pellew Group, Australia (161–163).
- Harper, Francis: SEE Bartram, J., 1942.
- x Harper, Harry
1978. Hefty manatees tagged, freed—but reluctant. *Florida Conserv. News* (Florida Dept. Nat. Resources), 13(12): 12. 3 figs. Sep. 1978.
—Pop. acc. of the release at Merritt Island Wildlife Refuge of two captive Florida manatees from

Marineland, St. Augustine, Florida.

- x Harper, Harry
1979. In search of mermaids: Charles Kuralt, "On the Road," at Blue Spring.
Florida Conserv. News (Florida Dept. Nat. Resources), 14(6): 16. 3 figs. Mar. 1979.
-Pop. acc. of the making of a videotape of manatees at Blue Spring, Florida, for a national newscast.
- Harper, Harry
1980. Except for boats and barges: overall manatee deaths decline.
Florida Conserv. News (Florida Dept. Nat. Resources), 15(5): 2. 3 tabs. Feb. 1980.
- x Harris, Tony; & Bertram, William Halsey Ricardo
1977. Dugongs in Abu Dhabi waters.
Bull. [Jour.?] Emirates Nat. Hist. Group (Abu Dhabi), No. 1: 5-6. Mar. 1977.
-Gives data on dugongs brought to the Abu Dhabi market, Nov. 1976-Feb. 1977, and on the accidental netting of dugongs and use of their meat in the area.
- x Harris, Walt. K.
1912. The Australian dugong.
The Lone Hand, July 1, 1912: 226-228. 1 fig.
-Pop. acc. of netting and harpooning techniques, processing of oil and meat, and the medicinal value of these products in treating consumption, burns, etc.
- Harrison, J.: SEE Howes & Harrison, 1893.
- Harrison, John Leonard
1964. *An introduction to the mammals of Sabah*.
Jesselton, Malaysia (Sabah Society), 1-244. 57 figs.
- Harrison, John Leonard
1966. *An introduction to mammals of Singapore and Malaya*.
Singapore, Malayan Nature Soc., 1-340. Illus.
-Dugong, 249-251.
- Harrison, Richard J.
1969a. Reproduction and reproductive organs. In: H.T. Andersen (ed.), *The biology of marine mammals*.
New York & London, Academic Press, 253-348. 19 figs.
-Sirs., 336-342.
- Harrison, Richard J.
1969b. Endocrine organs: hypophysis, thyroid, and adrenal. In: H.T. Andersen (ed.), *The biology of marine mammals*.
New York & London, Academic Press, 349-390. 8 figs.
-Sirs., 364-365, 381-382.
- Harrison, Richard J.; & King, Judith E.
1965. *Marine mammals*.
New York, Hillary House Publs.; London, Hutchinson & Co., 1-192. 12 figs.
-Sirs., 151-184.
- Harrison, Richard J.; & Ridgway, Samuel H.
1976. Deep diving in mammals.
Patterns Prog. (Zool. Ser.), 7: 1-51. 3 tabs. 15 figs.
- Harrison, Richard J.; & Tomlinson, J.D.W.
1964. Observations on diving seals and certain other mammals.
Symp. Zool. Soc. London, 13: 59-69. 4 figs.
- x Harrison, Tom
1965. A future for Borneo's wildlife?
Oryx, 8(2): 99-104. Pls. 9-13. Aug. 1965.
-Status of the dugong in Borneo and Sabah reported as uncertain; it is still hunted and accidentally netted despite legal protection in Sabah (103).
- x Harry, Robert Rees
1956. "Eugenie" the dugong mermaid.
Pacific Discovery, 9(1): 21-27. 5 figs. Jan.-Feb. 1956.
-Account of the procurement of "Eugenie" in the Palau Islands for the Steinhart Aquarium, San Francisco. Mentions that the dugong ate clams and sea cucumbers (22-24, 27). A postscript by the editor (Don Greame Kelley) describes its subsequent death from pneumonia and gangrene on Dec. 27, 1955 (27).
- Harry-Rofen, Robert Rees: SEE Harry, Robert Rees; Bayer & Harry-Rofen, 1957.
- x Hart, Henry Chichester
1888. *By-paths of Bible knowledge. XI. Scripture natural history. II. The animals mentioned in the Bible*.
London, Religious Tract Soc., 1-240. Illus.
-Discusses the identity of the *tachash* (25-27); favors its identification as the dugong (also mentioned on pp. 220 & 228).
- x Harting, J.E.
1878. The South American manatee in the Westminster Aquarium.
Zoologist, (3)2(20): 285-287. Aug. 1878.
-Gen. acc. of manatees and of the second "*Manatus americanus*" [= *T. manatus*] brought alive to England.
- Harting, Paul
1878. *Het ei en de placenta van Halicore dugong, met en overzicht van de placentavorming bij zoogdieren van verschillende orden. Proefschrift ter verkrijging van den grad van doctor in de wis-en natuurkunde aan de Universiteit te Utrecht.... Te verdedigen op Maandag 18 Februari 1878....*
Utrecht, P.W. Van de Weijer, 1-65. 2 pls.
-Engl. abstr.: *Jour. Anat. Phys.*, 13: 116-117,

1879. French ?transl.: Harting (1879).
- Harting, Paul
1879. Description de l'oeuf et du placenta de *Halicore dugong* (dugong) suivie de considérations sur la valeur taxonomique et phylogénique des caractères différentiels fournis par le placenta des mammifères.
Tijdschr. Nederl. Dierk. Ver., 4: 1-29. 2 pls.
-Transl. of Harting (1878)?
- Hartlaub, Clemens
1886a. Beiträge zur Kenntniss der *Manatus*-Arten.
Zool. Jahrb., I. Abt. Syst. Geogr. Biol. Thiere, 1(1): 1-112. 13 figs. 4 pls. Apr. 1, 1886.
-A landmark in sirenian osteology and systematics, this work definitively established the existence of three and only three Recent manatee species (here termed *Manatus senegalensis*, *M. latirostris*, and *M. inunguis*). It also reviews their nomenclature, describes bone by bone the cranial anatomy of both adult and juvenile specimens, discusses manatee dentitions and tooth replacement, and reviews the geographic distribution of the three species.
- x Hartlaub, Clemens
1886b. Ueber *Manatherium delheidi*, eine Sirene aus dem Oligocän Belgiens.
Zool. Jahrb., 1: 369-378. 5 figs.
-Describes the new genus and species *Manatherium delheidi*, based on fragments of a juvenile skull from the upper Rupelian (Oligocene) of Belgium; argues (erroneously) that it is closely related to *Manatus*. (It was referred to *Halitherium schinzii* by Sickenberg, 1934b.)
- Hartley, Wayne: SEE Appendix 1, *Save the Manatee Club News*.
- Hartman, Daniel Stanwood
1969. Florida's manatees, mermaids in peril.
Natl. Geogr. Mag., 136(3): 342-353. 11 figs. Sep. 1969.
-Gen. acc. of manatee behavior and natural history, illustrated with excellent color photos. A preliminary announcement of this article, with 1 photo, appeared in the advertisement section in the front of the Aug. 1968 issue (vol. 134, no. 2).
- Hartman, Daniel Stanwood
1971. Behavior and ecology of the Florida manatee, *Trichechus manatus latirostris* (Harlan), at Crystal River, Citrus County. [Abstr.]
Dissert. Abstrs. Internatl. B., 32(4): 2442. Oct. 1971.
-Abstr. of a Ph.D. dissertation submitted to the Dept. of Conservation, Cornell University, in Jun. 1971; eventually publ. in revised form as Hartman (1979).
- x Hartman, Daniel Stanwood
1972a. Manatees.
Sierra Club Bull., 57(3): 20-22. Cover photo + 3 figs. Mar. 1972.
-Pop. acc. of sirs. in general and of the status and biology of Florida manatees, with 3 color photos. The manatee photo on p. 21 was subsequently the basis of widely-used drawings and posters.
- Hartman, Daniel Stanwood
1972b. Sea nymphs and elephants.
Not Man Apart (publ. for Friends of the Earth & League of Conservation Voters), 2(12): 8. Cover photo + 1 fig. Dec. 1972.
- x Hartman, Daniel Stanwood
1974a. *Distribution, status, and conservation of the manatee in the United States*.
NTIS Document No. PB 81-140725, v + 247. 38 figs.
-The definitive compilation of manatee locality records in Florida, Georgia, and South Carolina for the period 1880-1973. Includes detailed maps showing manatee sightings by county; discussions of local and regional manatee movements in response to temperature, food, and fresh water availability, manatee diet, abundance, and legal status, and threats to manatee survival in Florida; and recommendations for new legislation and protected areas.
- Hartman, Daniel Stanwood
1974b. Status survey of the manatee.
World Wildlife Yearbook, 1973-74: 235-237.
-Status of *T. manatus*.
- x Hartman, Daniel Stanwood
1979. Ecology and behavior of the manatee (*Trichechus manatus*) in Florida.
Amer. Soc. Mammalogists Spec. Publ., No. 5: viii + 153. 11 tabs. 40 figs. Jun. 27, 1979.
-Rev.: D.K. Odell, *Assoc. Systematics Collections Newsletter*, 8(2): 29, Apr. 1980; D.K. Odell, *Amer. Scientist*, 69: 458, 1981. The most comprehensive study of sir. behavior published to date; based mainly on observations of the Crystal River-Homosassa River population in northwestern Florida, but including data from the St. Johns River and elsewhere in the state. Comprises physical and biological descriptions of the Crystal and Homosassa rivers, data on the manatee population, its movements, use of the habitat, daily activity, food habits, interspecific interactions, all aspects of behavior, sensory capacities, population dynamics, and man-manatee relations.

Concludes with a comparison of sir. and cetacean behavioral repertoires in relation to ecology and evolution.

Hartman, J.E.

1969. Manatee: siren of the sea.
Natl. Wildlife, 7(6): 38-39. Oct. 1969.

x Hartmann, R.

1880. Über einen jungen Dugong (*Halicore cetacea* Illig).
Sitzb. Ges. Naturf. Freunde Berlin, 1880(9): 156-159. Read Nov. 16, 1880.
-Describes the external morphology of an alcohol-preserved 102-cm dugong calf, with special attention to the mouth region and with external measurements.

x Hartt, Charles Frederick

1875. *Amazonian tortoise myths*.
Rio de Janeiro, William Scully, [ii] + 40.
-According to an Indian story, the stars α and β Orionis represent a man and a boy in a canoe chasing a manatee, represented by a nearby dark region of the sky (39).

Hartt, Charles Frederick (= Carlos Frederico)

1885. Contribuições para a ethnologia do Valle do Amazonas.
Arch. Mus. Nac. (Rio de Janeiro), 6: 1-174.
-Reports manatee bones from shell mounds about 30 miles east of Santarém, Brazil (3, 10).

Hartwig, Georg Ludwig

1892. *The sea and its living wonders; a popular account of the marvels of the deep and of the progress of maritime discovery from the earliest ages to the present time*. Ed. 8.
London, Longmans, Green, & Co., xx + 524. 8 pls. 1 map.

x Harwood, Kitty

1947. The sea cow is a tourist.
Sports Afield, Nov. 1947: 50, 89. 1 fig.
-Pop. acc. of capturing a female Florida manatee by harpoon for the Prins Valdemar Aquarium, which was housed in a beached ship at Miami. She was released about two weeks later because it was thought she was about to give birth.

Hasegawa, A.: SEE Ohtomo et al., 1980.

x Hasegawa, Hideo

1988. *Paradujardinia halicoris* (Owen, 1833) (Nematoda: Ascarididae) collected from a dugong, *Dugong dugon*, of Okinawa, Japan.
Biol. Mag. Okinawa, No. 26: 23-25. 1 fig. Aug. 10, 1988.
-In Japanese; Engl. summ. The first record in Japanese waters of *P. halicoris*, taken from the

stomach and small intestine of a dugong washed ashore in Okinawa on Jan. 4, 1988.

D Hasegawa, Uto

1972. Adaptation to water and the evolution of the aquatic animals.
Iden, 26(11): 2-9. Figs. Nov. 1972.
-In Japanese.

Hasegawa, Yoshikazu: SEE ALSO Kamiya et al., 1985; Kohno & Hasegawa, 1988; Oishi et al., 1990; Satoh et al., 1989; Shikama et al., 1973.

x D Hasegawa, Yoshikazu

1977. [The reconstruction of the phantom monster *Desmostylus*.]
Anima (Tokyo), 1977(12)(57): 90-91. 11 figs. Dec. 1977.
-In Japanese. Pop. acc. of reconstructions of the body forms of *Desmostylus* and *Paleoparadoxia*, illustrated by 11 artist's renderings.

D Hasegawa, Yoshikazu

1978. Problems concerning some Cenozoic terrestrial vertebrates from Japan; with comment by Y. Okazaki. [Abstr.]
Bull. Mizunami Fossil Mus., No. 5: 159-160. Dec. 25, 1978.
-In Japanese.

Hasegawa, Yoshikazu

1980. Vertebrates from the Late Pleistocene-Holocene of the Ryukyu Islands.
Quat. Res. (Jap. Assoc. Quat. Res.), 18(4): 263-267. Tabs. Feb. 1980.
-In Japanese; Engl. summ. *Dugong*.

D Hasegawa, Yoshikazu

1988. [Reconstruction of the skeleton of *Paleoparadoxia*.] In: Y. Hasegawa (ed.), [Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals].
Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 102-104. 2 figs. Mar. 1988.
-In Japanese.

Hasegawa, Yoshikazu; & Nohara, Tomohide

1982. Two large tusks of *Dugong* from Okinawa and Iriomote Islands, Ryukyu Islands.
Sci. Rept. Yokohama Natl. Univ., Sect. II, Biol. Geol., No. 29: 29-32. 1 fig. 1 pl. Nov. 1982.

Hasegawa, Yoshikazu; & Nokariya

1979. [Mammalian specimens from the Nagara Haranishi shellmound.]
Iko-mura Bunkazai Chosa Hokokusho [Iko Village Cultural Assets Investigative Report], No. 8: 175-229.
-In Japanese. Reports specimens of *Dugong*

dugon from an archeological site.

- D Hasegawa, Yoshikazu; Okazaki, Yoshihiko; Kuga, Naoyuki; & Kohno, Naoki
1988. [Comparison of mammal fossils in the Tomikusa Formation, Mizunami Formation, and Isshi Formation.] In: Y. Hasegawa (ed.), [Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals.] Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 15–17. 1 tab. 2 figs. Mar. 1988.
–In Japanese.
- D Hasegawa, Yoshikazu; & Tanaka, Hiroyuki
1987. [*Desmostylus* from Takasaki.] In: Y. Hasegawa (ed.), [Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals.] Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 44. 1 fig. Mar. 1987.
–In Japanese.
- Hashimoto, Kazuo: SEE Satoh et al., 1989.
Hassall, Albert: SEE Stiles & Hassall, 1899.
Haswell, W.A.: SEE Parker & Haswell, 1897.
- D Hatai, Kotora
1960. Japanese Miocene reconsidered. *Sci. Rept. Tohoku Univ.* (Sendai), Ser. 2, Special Vol. 4: 127–153.
- x Hatt, Robert T.
1934. A manatee collected by the American Museum Congo Expedition, with observations on the Recent manatees. *Bull. Amer. Mus. Nat. Hist.*, 66(4): 533–566. 2 figs. Pl. 27. Sep. 10, 1934.
–Review of the nomenclature of manatees, comparison of skeletal features and variation of the species and subspecies of *Trichechus*, and resumé of distribution of manatees in Africa.
- Hauer, Franz von
1867. *Halianassa Collini* aus einer Sandgrube bei Hainburg. *Verh. Geol. Reichsanst. Wien*, 1867(7): 140–141. Read Apr. 16, 1867.
- Haupt, O.
1935. Andere Wirbeltiere des Neozoikums. *Oberrhein. Fossilkatalog*, 9: 1–103.
–Mentions *Halitherium schinzii*, 61.
- x Hawrylyshyn, George
1974. A friend in need. *Internatl. Wildlife*, 4(6): 20. 1 fig. Nov.–Dec. 1974.
- Short paragraph with a photo of a *T. inunguis* killed near Tefé, Brazil.
- Hay, Oliver Perry
1899. A census of the fossil Vertebrata of North America. *Science*, (2)10: 681–684.
–Sirs., 682.
- x Hay, Oliver Perry
1902. Bibliography and catalogue of the fossil Vertebrata of North America. *Bull. U.S. Geol. Surv.*, 179: 1–868.
–Creates the new combinations *Trichechus antiquus* (Leidy) (583) and *T. inornatus* (Leidy) (584).
- xD Hay, Oliver Perry
1915. A contribution to the knowledge of the extinct sirenian *Desmostylus hesperus* Marsh. *Proc. U.S. Natl. Mus.*, 49(2113): 381–397. Pls. 56–58.
–Abstrs.: *Nature* (London), 96: 152?; *Geol. Mag.*, (6)2: 567? Recounts the history of discovery of *Desmostylus*; discusses it and compares it with various sirs.; proposes the Family Desmostylidae (a name actually coined previously by Osborn, 1905a) and gives the name *Desmostylus watasei* to the specimen of Yoshiwara and Iwasaki (1902).
- x Hay, Oliver Perry
1919. Description of some mammalian and fish remains from Florida of probably Pleistocene age. *Proc. U.S. Natl. Mus.*, 56(2291): 103–112. Pls. 26–28.
–Describes a mandible of uncertain provenance (USNM 2522) and refers it to “*Trichechus antiquus* Leidy?” (109–110, pl. 26). Domning (1982b: 604–605) interpreted this specimen as a subrecent *T. manatus*.
- x Hay, Oliver Perry
1922a. Description of a new fossil sea cow from Florida, *Metaxytherium floridanum*. *Proc. U.S. Natl. Mus.*, 61(17)(2438): 1–4. 1 pl.
–Bases the new species on a maxilla with third molar from a phosphate mine at Mulberry, Florida, supposing it to be of Late Oligocene age (it is probably late Middle Miocene; Domning, 1988). An isolated lower tooth from Palma Sola, Florida, is provisionally referred to the species.
- D Hay, Oliver Perry
1922b. Note on *Desmostylus hesperus*. *Acta Zoologica* (Stockholm), 3: 392–393.
–In O. Abel (1922).
- xD Hay, Oliver Perry
1923a. Characters of sundry fossil vertebrates. *Pan-American Geologist*, 39: 101–120. Figs.

4–5. Pls. 7–9. Mar. 1923.

–In section III (“*Desmostylus*: its species and relationships”), criticizes Hannibal’s erection of the species *D. cymatias*; proposes the names *D. californicus* and *Cornwallius*; refutes Abel’s theory of multituberculate affinities for desmostylians; and proposes the suborders Desmostyliiformes and Trichechiformes within the Sirenia (105–109).

Hay, Oliver Perry

1923b. The Pleistocene of North America and its vertebrated animals from the states east of the Mississippi River and from the Canadian provinces east of longitude 95°.

Publ. Carnegie Inst. Washington, No. 322: vii + 499. 25 figs. 41 maps.

–Sirs., 379.

xD Hay, Oliver Perry

1924. Notes on the osteology and dentition of the genera *Desmostylus* and *Cornwallius*.

Proc. U.S. Natl. Mus., 65(8)(2521): 1–8. 2 figs. 2 pls.

–Suggests that the type of *Cornwallius* may be a milk tooth of *Desmostylus*; discusses and compares various other specimens.

Hayek, Lee-Ann C.: SEE Domning & Hayek.

Hayman, R.W.: SEE ALSO Ellerman et al., 1953.

Hayman, R.W.

1956a. Manatees and dugongs.

Zoo Life (London), 10(4): 98–100. 3 figs.

–Gen. acc. of sir. natural history, and of two *T. manatus* from British Guiana on exhibit in London.

Hayman, R.W.

1956b. Mammals of the West Indies.

Zoo Life (London), 11: 41–46.

Haynes, Ann M.: SEE Fairbairn & Haynes, 1982; Shaul & Haynes, 1986.

Heddle, R.: SEE Baikie & Heddle, 1848.

Heerfort, Christoph

1725. *Dissertatio hist.-phys.-crit. de sirenibus, seu piscibus humani corporis structuram quodammodo imitantibus*.

Hafniae [= Copenhagen], Resp. Andr. Bing., 1–20.

–Allen 189.

Hegel, Giesela von: SEE Schweigert et al., 1991.

Heilmann, Gerhard

1913. Vor nuvaerende Viden om Fuglenes Afstamning. Første Afsnit. [What we know about the descent of birds. Part 1.]

Dansk Ornith. For. Tidsskr., 7: 1–71. 50 figs.

–Sirs., 58.

Heilmann, Gerhard

1914. Vor nuvaerende Viden om Fuglenes Afstamning. Tredje Afsnit. [What we know about the descent of birds. Part 3.]

Dansk Ornith. For. Tidsskr., 9: 1–91. Figs. 110–159.

–Sirs., 90.

Heilprin, Angelo

1887. *The geographical and geological distribution of animals*.

New York & London, Internatl. Scientific Series, xii + 435. 1 map.

–Sirs., 339.

Heilprin, Angelo

1907. An impression of the Guiana wilderness.

Natl. Geogr. Mag., 18: 373–381. 6 figs. Jun. 1907.

–Note on *T. manatus* cropping bank vegetation in British Guiana (376).

Heinsohn, George Edwin: SEE ALSO Anderson & Heinsohn, 1978; Denton et al., 1980; Elliott et al., 1979, 1981; Murray et al., 1977; Marsh et al.; Preen & Heinsohn, 1983; Preen et al., 1989; Spain et al.

x Heinsohn, George Edwin

1972. A study of dugongs (*Dugong dugong*) in northern Queensland, Australia.

Biol. Conserv., 4(3): 205–213. 7 figs. Apr. 1972.

–Abstr.: *Austral. Mammalogy*, 1: 71, Dec. 1972. Discusses numbers, age and sexual structure of population, growth, maturation, reproduction, and conservation, based on data from dugongs caught accidentally in shark nets, 1964–1971.

Heinsohn, George Edwin

1977a. Dugongs in the seagrass ecosystem in north Queensland. [Abstr.]

Bull. Austral. Mammal Soc., 4(1): 27. Sep. 1977 (read May 1977).

x Heinsohn, George Edwin

1977b. Dugongs and turtles. Part one.

Wildlife in Australia, 14(4): 134–139. 14 figs. Dec. 1977.

–Pop. acc. of dugong biology.

x Heinsohn, George Edwin

1978a. Dugongs and turtles. Part 2.

Wildlife in Australia, 15(1): 26–30. 12 figs. Autumn 1978.

–Pop. acc. of dugong conservation (29–30).

Heinsohn, George Edwin

1978b. Marine mammals of the northern Great Barrier Reef region. In: Workshop on the northern section of the Great Barrier Reef.

Great Barrier Reef Marine Park Authority Workshop Series, No. 1: 315–335.

- Heinsohn, George Edwin
1978c. Aerial surveys and dugong conservation - an overview. [Abstr.]
Bull. Austral. Mammal Soc., 51: 36-37. Read May 1978.
- x Heinsohn, George Edwin
1981a. Status and distribution of dugongs in Queensland. [Abstr.] In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8-13 May 1979* (q.v.).
[Townsville (Australia)], James Cook Univ. (vii + 400), 55-56.
-Outlines available data on dugong numbers and locations (based on aerial surveys), and discusses the threats to which they are exposed.
- n Heinsohn, George Edwin
1981b. The dugong in the seagrass ecosystem. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8-13 May 1979* (q.v.).
[Townsville (Australia)], James Cook Univ. (vii + 400), 162-163.
-Abstr. of Heinsohn, Wake, Marsh, & Spain (1977).
- x Heinsohn, George Edwin
1981c. Aerial survey techniques for dugongs. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8-13 May 1979* (q.v.).
[Townsville (Australia)], James Cook Univ. (vii + 400), 217-227.
-Describes the techniques used by the research team at James Cook University, Queensland, and problems encountered. Also includes as appendices two sample aerial survey data sheets (386-387).
- x Heinsohn, George Edwin
1981d. Methods of taking measurements, other data and specimen material from dugong carcasses. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8-13 May 1979* (q.v.).
[Townsville (Australia)], James Cook Univ. (vii + 400), 228-238. 1 fig.
-Describes in detail a set of standard external measurements, and briefly lists other sorts of data and tissue samples that are desirable to collect. Also includes as appendices two sample carcass data sheets (370-385).
- Heinsohn, George Edwin
1983. Dugongs: Family Dugongidae. In: R. Strahan (ed.), *The Australian Museum complete book of Australian mammals*.
Sydney, Angus & Robertson (xxi + 530), 474-476. 3 figs.
- Heinsohn, George Edwin
1986. Rare and endangered: world's only strictly marine sea cow threatened.
Austral. Nat. Hist., 21(12): 530-531. 2 figs. Autumn 1986.
- x Heinsohn, George Edwin; & Birch, W.R.
1972. Foods and feeding habits of the dugong *Dugong dugong* (Erxleben) in northern Queensland, Australia.
Mammalia, 36(3): 414-422. 1 fig. Sep. 1972.
-Describes stomach contents (seagrasses) of dugongs caught in shark nets, and notes the food preferences indicated thereby.
- x Heinsohn, George Edwin; Lear, Richard J.; Bryden, Michael M.; Marsh, Helene D.; & Gardner, Blair R.
1978. Discovery of a large population of dugongs off Brisbane, Australia.
Envir. Conserv., 5: 91-92. 1 fig.
-Reports aerial observations of at least 300 dugongs in Moreton Bay, 1976-1977.
- x Heinsohn, George Edwin; & Marsh, Helene D.
1977. Sirens of tropical Australia.
Austral. Nat. Hist., 19(4): 106-111. 8 figs. Oct.-Dec. 1977.
-Pop. acc. of dugongs and dugong research in Australia, mainly covering the same material presented by Heinsohn, Wake, Marsh, & Spain, 1977.
- Heinsohn, George Edwin; & Marsh, Helene D.
1984. Sirens of northern Australia: the dugongs. In: M. Archer & G. Clayton (eds.), *Vertebrate zoogeography and evolution in Australasia (animals in space and time)*.
Carlisle (Western Australia), Hesperian Press (1203 pp.), 1003-1010. 13 figs.
- Heinsohn, George Edwin; Marsh, Helene D.; & Anderson, Paul K.
1979. Australian dugong.
Oceans, 12(3): 48-52. 5 figs. May 1979.
- Heinsohn, George Edwin; Marsh, Helene D.; Gardner, Blair R.; Spain, Alister V.; & Anderson, Paul K.
1979. Aerial surveys of dugongs. In: Proceedings of workshop on aerial surveys of fauna populations, Canberra, Feb. 22-25, 1977.
Austral. Natl. Parks & Wildl. Serv., Spec. Publ., No. 1: 85-96. 4 figs.
- x Heinsohn, George Edwin; Marsh, Helene D.; & Spain, Alister V.
1976. Extreme risk of mortality to dugongs (Mammalia: Sirenia) from netting operations.
Austral. Jour. Wildl. Res., 3(2): 117-121. 1 tab. 1 fig.

- Account of techniques used in catching Australian dugongs for research, behavior of dugongs in nets, and effects on dugong populations of netting operations in Queensland and Kenya.
- x Heinsohn, George Edwin; & Spain, Alister V.
1974. Effects of a tropical cyclone on littoral and sub-littoral biotic communities and on a population of dugongs (*Dugong dugon* (Müller)). *Biol. Conserv.*, 6(2): 143–152. 2 tabs. 5 figs. Apr. 1974.
—Analyzes data on sex and age ratios of dugongs caught in shark nets before and after a cyclone; discusses an apparent increase in their movements, and a change in their feeding habits to include brown algae in addition to seagrasses.
- x Heinsohn, George Edwin; Spain, Alister V.; & Anderson, Paul K.
1976. Populations of dugongs (Mammalia: Sirenia): aerial survey over the inshore waters of tropical Australia. *Biol. Conserv.*, 9(1): 21–23. 1 tab. Jan. 1976.
—Results of surveys in the Townsville and Cape York areas, Sep.–Dec. 1974; several large aggregations seen.
- x Heinsohn, George Edwin; & Wake, Judith Ann
1976. The importance of the Fraser Island region to dugongs. *Operculum*, 5(1): 15–18. 3 figs. Mar. 1976.
—Reports results of aerial surveys showing dugong concentrations in Great Sandy Strait and Hervey Bay, Queensland, Australia; emphasizes dugongs' need for protected seagrass beds and the vulnerability of the latter to human activities.
- x Heinsohn, George Edwin; Wake, Judith Ann; Marsh, Helene D.; & Spain, Alister V.
1977. The dugong (*Dugong dugon* (Müller)) in the seagrass system. *Aquaculture*, 12(3): 235–248. 4 figs.
—Abstr.: Heinsohn (1981b). Review, mainly from published literature, of dugong feeding habits, movements, trophic relations, exploitation, and conservation problems. Suggests dugongs should be studied for possible sustained-yield meat production.
- Heinsohn, George Edwin; Wolanski, Eric; Bunt, John S.; Denton, Gary; Garnett, Stephen; Johannes, Robert Earle; Marsh, Helene D.; & Veron, John
1985. The Torres Strait. *Habitat Australia*, 13(6): 12–18. 5 figs. Dec. 1985.
—Dugong conservation, 15–16.
- x Hellwing, S.; & Steinitz, Heinz
1971. Sea cows in the Gulf of Elat. *Hebrew Univ. Jerusalem, Mar. Biol. Lab., Elat, Sci. Newsletter*, No. 1: 11–12. Apr. 1971.
—Records a possible sighting of a dugong in 1969 and the finding of a skull in 1970, both on the east coast of the Sinai Peninsula.
- x Hellyer, Peter
1992. [Recorder's report for January–June 1992—mammals.] *Tribulus: Bull. Emirates Nat. Hist. Group*, 2(2): 43–44. Oct. 1992.
—P. 44: ["The only report of a Dugong, (*Dugong dugon*), was of a skeleton about four and a half feet long at Dhabbiyyah, (UA 25), on February 19th."]
- x Hellyer, Peter
1993. Mammals. *Tribulus: Bull. Emirates Nat. Hist. Group*, 3(2): 23–24. Oct. 1993.
—Reports two recent occurrences of dugongs in Abu Dhabi (24).
- x Hemming, Francis
1952. Report on the nomenclatorial status of the generic name "*Manatus*" Brünnich, 1771 (Class Mammalia). *Bull. Zool. Nomencl.*, 6(5): 159–160. Apr. 15, 1952.
—Recommends that *Manatus* Brünnich, 1771 be considered a synonym of *Trichechus* Linnaeus, 1758, and that *manatus* be recognized as the valid specific name of the type species (*Trichechus manatus*), on the appropriate Official Lists of Names in Zoology.
- Hemprich, F.G.; & Ehrenberg, Christian Gottfried
1828–1899. *Symbolae physicae seu icones et descriptiones corporum naturalium novorum aut minus cognitorum quae ex itineribus per Libyam Aegyptum Nubiam Dongalam Syriam Arabiam et Habessiniam publico institutis sumptu Friderici Guilelmi Hemprich et Christiani Godofredi Ehrenberg ... studio annis MDCCCXX-MDCCCXXV redierunt.... Pars zoologica I[-II]... Mammalia II.* Berlin, Officina Academica (4 vols.).
—Text publ. 1828–1845. The plates, with legends and brief explanatory text by Paul Matschie, were issued as a supplement (*Symbolae physicae seu icones adhuc ineditae corporum ...*, Berlin, Georg Reimer: 1–12, 32 pls., Oct. 1899). Some signatures separately dated. *Halicora* [sic] *Hemprichii* and *H. Lottum*, n.spp., sign. k (Sep. 1832). Pls. 3–5 of the 1899 supplement depict the skull of a female "*Halicora Hemprichii*."
- Henderson, George
1809. *An account of the British settlement of Honduras.... To which are added, sketches of the*

manners and customs of the Mosquito Indians, preceded by the journal of a voyage to the Mosquito Shore.

London, C. & R. Baldwin, xi + 203.

—Ed. 2: London, 1811. See R. Harlan (1825a: 278).

Henderson, Gregory S.: SEE Whitten et al., 1987.

Hendrokusumo, Sukiman: SEE ALSO Tas'an et al., 1979.

- x Hendrokusumo, Sukiman; Sumitro, D.; & Tas'an
1981. The distribution of the dugong in Indonesian waters. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8-13 May 1979* (q.v.). [Townsville (Australia)], James Cook Univ. (vii + 400), 10-18. 6 figs.

—Presents maps showing where dugongs were captured or reported by local inhabitants. Mentions in passing some information about vernacular names and local attitudes towards dugong hunting, and cites Indonesian protective legislation.

Hennemann, W.W.

1983. Relationship among body mass, metabolic rate and the intrinsic rate of natural increase in mammals.

Oecologia (Berlin), 56: 104-108.

Hennicke, Carl

1902. Über die Anpassung des Gehörorganes der Wassersäugethiere an das Leben im Wasser. *Monatschr. Ohrenheilk.*, 36: 157-179.

—Sirs., 159, 163.

Henry, Walter

1843. *Events of a military life: being recollections after service in the Peninsular war, invasion of France, the East Indies, St. Helena, Canada, and elsewhere...* Ed. 2.

London, W. Pickering (2 vols.).

—Sirs., 2: 66-67.

Henshall, J.A.

1884. *Camping and cruising in Florida.*

Cincinnati, Robert Clarke & Co., 1-248.

Henshaw, John; & Child, Gilbert S.

1972. New attitudes in Nigeria.

Oryx, 11(4): 275-283.

—Reports recent catches of *T. senegalensis* in Kainji Lake (278).

Hentschel, E.; & Vosseler, J.

1915. Der gegenwärtige Stand unserer Kenntnisse von den Seekühen (Sirenen).

Verh. Natw. Ver. Hamburg, (3)23: 72-73.

x Heptner, Vladimir Georgievich

1965. Yeshche raz o stellerovoy korove. [More on Steller's sea cow.]

Priroda, 54(7): 91-94. 1 fig.

—Harshly criticizes the report of Berzin et al. (1963), and attributes their supposed sightings of *Hydrodamalis* to female narwhals. Also reviews other reports and concludes there is no evidence for *Hydrodamalis* ever having occurred outside of the Komandorski Islands.

Heptner, Vladimir Georgievich

1966. [Area of distribution and history of extermination of *Hydrodamalis gigas* Zimmermann.]

Lynx (n.s.), 6: 49-50.

—In Russian; Engl. summ.

Heptner, Vladimir Georgievich; & Naumov, N.P. (eds.)

1967. *Mlekopitaiushchie Sovetskogo Soiuza*. [Mammals of the Soviet Union.] Vol. 2. Sirenia and Carnivora.

Moscow, Vysshaya Shkola, 5-1004. 356 figs.

—German ed.: Jena, G. Fischer, 196?? *Hydrodamalis*, 15-46.

Herald, Earl S.: SEE ALSO Evans & Herald, 1970; Frye & Herald, 1969; Loughman et al., 1970.

x Herald, Earl S.

1969. Aquatic mammals at Steinhart Aquarium.

Pacific Discovery, 22(6): 26-30. 10 figs. Nov.-Dec. 1969.

—Mention of "Eugenie" the dugong and account of "Butterball" the Amazonian manatee (food, behavior, etc.), with remarks on other sirs. in captivity at other institutions (29-30).

Herbert, Thomas

1634. *A relation of some years travaile, begunne anno 1626. Into Afrique and the Greater Asia, especially the territories of the Persian Monarchie: and some parts of the Orientall Indies, and iles adiacent. Together with the proceedings and death of the three late ambassadours: Sir D.C., Sir R.S. and the Persian Nogdi-Beg: as also the two great monarchs, the King of Persia, and the Great Mogol.*

London, W. Stansby & J. Bloome, 225 + [12]. Illus.

Herbert, W.; & Nicholson, W.

1780. *A new directory for the East Indies...* Ed. 5.

London, Henry Gregory.

Herdson, D.M.

1978. Mammals.

Wildlife Bahrain, 1977: 61.

x Heriarte, Mauricio de

1874. *Descrição do Estado do Maranhão, Pará, Corupá e Rio das Amazonas...*

Vienna, Filho de Carlos Gerold, 1-84.

—Regarding the period ca. 1662, notes the export of manatees from Gurupá, Brazil, to St. Christo-

pher, West Indies (29–30), and states that the Rio Trombetas has “many manatees” (39).

Herklots, Geoffrey Alton Craig

1951. *The Hong Kong countryside.*

Hong Kong, printed by the South China Morning Post? 175 + vii. Illus.

–Dugong captured in Hong Kong in 1940 or 1941 (93).

Herlein, J.D.

1718. *Beschryvinge van de Volk-plantinge Zuriname: vertonende de opkomst dier zelver Colonie, de aanbouw en bewerkinge der zuiker-plantagien. Neffens den aard der eigene natuurlijke inwoonders of Indianen; als ook de slaafsche Afrikaansche Mooren; deze beide natien haar levensmanieren, afgoden-dienst, regering, zeden, gewoonten en dagelijksche bezigheden. Mitsgaders een verhoog van de bosch-grond, water- en pluim-gediertens; de veel vuldige heerlijke vruchten, melkagtige zappen, gommen, olyen, en de gehele gesteltheit van de Karaïbaansche kust.*

Leeuwarden, M. Injema, 18 + 262. 4 pls. 1 map.

–Manatee in Suriname, 196.

Hermann, Johann

1783. *Tabula affinitatum animalium olim academico specimine edita, nunc uberiore commentario illustrata cum annotationibus ad historiam naturalem animalium augendam facientibus.*

Argentorati [= Strassburg], J.G. Treuttel, 1–370.

–Allen 374.

Hernández Camacho, Jorge I.: SEE Camacho, Jorge I. Hernández.

Hernández, Francisco

1651. *Nova plantarum, animalium et mineralium mexicanorum historia....* [illus. title; or] *Rervm medicarvm Novae Hispaniae thesavrvs sev Plantarvm animalivm mineralivm mexicanorvm historia....* [Engraved title.]

Rome, sumptibus Blasij Deuersini & Zanobij Masotti Bibliopolarum, typis Vitalis Mascardi, [9] + 950 + 90 + [3] + [10].

–Allen 76. An abridgement of earlier eds.: 1604; Mexico, 1615; Rome, 1628 (Allen 62). Reprs. of 1615 ed.: Mexico, Antonio Peñafiel, 1888; Morelia (Mexico), Nicolás León, 1888. Various Spanish transls. bear titles such as *Cuatro libros de la naturaleza y virtudes de las plantas y animales de uso medicinal en la Nueva España.*

Manatee, chap. 13, 323–324, 2 figs., “not remarkable for accuracy” (Allen). The manatee material in the 1615 ed. is in Book 4, Pt. 1, Chap. 8, leaves 183–184.

x Herndon, William Lewis

1853. *Exploration of the valley of the Amazon, made*

under direction of the Navy Department, by Wm. Lewis Herndon and Lardner Gibbon.... Part I.

Washington, Robert Armstrong, iv + 417 + iii. 16 pls.

–See also Gibbon (1854). Mentions manatees and their uses in Peru (158, 163–164, 200) and Brazil (300, 319, 365), including the quantities of meat and mixira shipped through Santarem in 1843 and 1846 (300).

Herrera, Antonio de

1625. A description of the West Indies. In: S. Purchas, ... *Purchas his pilgrimes...* (q.v.).

London, Henry Fetherston, Part 3.

Herrera, Antonio de

1660. *Histoire generale des voyages et conqvestes des Castellans, dans les isles & terre-ferme des Indes Occidentales. Traduite de l'Espagnol ... Par N[icolas]. de la Coste....*

Paris, Nicolas & Jean de la Coste (3 vols.).

–Allen 83. Manati, 1: 378–379.

Herrera, Antonio de

1726. *Historia general de los Hechts. de los Castellanos en las islas i terra firme del Mar Oceano.... En quatro decadas desde el año de 1492, hasta el de [1]531.*

Madrid, Nicolas Rodriguez (4 vols.).

–Allen 190.

Herrera, Antonio de

1728. *Historia general de las Indias occidentales; ò de los hechos de los Castellanos en las islas y tierra firme del Mar Oceano, ... En ocho decadas. Sigue a la ultima decada la descripcion de las Indias por el mismo autor.... Nueva Impression....*

Amberes [= Antwerp], Juan Bautista Verdussen (4 vols.), Vol. 1: 1–496. Pls.

–Allen 193. Ed. 1: Herrera (1726). Manati, vol. 1, dec. 1: 118. According to Allen, a slightly abridged paraphrase of Gomara's (1554) account.

Herrera, Antonio de

1730. *Historia general de los hechos delos Castellanos en las islas i tierra firme del Mar Oceano.... En quatro decadas des de el año de 1492 hasta el de [1]531. [Or, with different title-page:] Descripcion de las Indias occidentales....*

Madrid, Nicolas Rodriguez (4 vols.).

–Allen 194, 195; these eds. apparently differing only in the title-page. Manati, dec. 1: 141–142.

Herrera, Antonio de

1740. *The general history of the vast continent and islands of America, commonly call'd, the West-Indies, from the first discovery thereof: with the best accounts the people could give of their antiquities. Collected from the original relations sent to the Kings of Spain.... Translated into*

English by Capt. John Stevens.... The second edition.

London, Wood & Woodward (6 vols.).

—Allen 215. First ed., London, Jer. Batley, 1725–1726. Manati, 1: 82 (Columbus' account), 278–279.

Herre, Albert W.

1928. Rational methods for the protection of useful aquatic animals of the Pacific.

Proc. 3rd Pan-Pacif. Sci. Congress (Tokyo, 1926), 1: 1072–1074.

Herrera y Tordesillas, Antonio de: SEE Herrera, Antonio de.

Hersh, Sandra L.

1991. Siren census.

Sea Frontiers, 37(4): 6. 1 fig. Aug. 1991.

—Brief pop. acc. of the statewide manatee census conducted in Florida in Feb. 1991.

x Hershkovitz, Philip

1959. Nomenclature and taxonomy of the Neotropical mammals described by Olfers, 1818.

Jour. Mamm., 40(3): 337–353. Aug. 20, 1959.

—P. 342: {"*M[anatus]. fluviatilis* (p. 235) = *Trichechus manatus manatus* Linnaeus, 1758 (Syst. Nat., ed. 10, 1: 34).—Olfers' primary basis for the name is the Guianan *manati* of Pennant (1793, Hist. Quadr. 2: 297). His other synonyms, *Tr[ichechus]. Clusii* Shaw and *Tr[ichechus]. Amazonius* Shaw (1800, Gen. Zool., 1, [1]: 246) are freshwater representatives of the common Antillean manatee."}

Hesse, C.J.: SEE Stenzel et al., 1944.

x Heuglin, Martin Theodor von

1868. *Reise nach Abessinien, den Gala-Ländern, Ost-Sudán und Chartúm in den Jahren 1861 und 1862.*

Jena, Hermann Costenoble, xii + 459 + [iii]. 1 tab. 10 pls. 1 map.

—Report of a "*Manatus*"-like animal in Lake Tana, Ethiopia (247, 289).

Heuglin, Martin Theodor von

1877. *Reise in Nordost-Afrika....*

Braunschweig, George Westermann (2 vols.), Vol. 1: xiv + 285. Vol. 2: vi + 304.

—Account of *Halicore cetacea*, 2: 135–137.

x Heuvelmans, Bernard

1941a. Notes sur la dentition des Siréniens. I. La formule dentaire du lamantin (*Trichechus*).

Bull. Mus. Hist. Nat. Belgique, 17(21): 1–15. 2 figs. Apr. 1941.

—Detailed literature review. Concludes that the dental formula is DI 3/3 DC 0/1 DM 0/3 M 12–15/12–15; that the large number of molars is a primitive (but "generally inhibited") mammalian

character despite the manatee's descent from forms with normal counts; and that horizontal tooth replacement is an "illusion" due to growth of the mandible.

x Heuvelmans, Bernard

1941b. Notes sur la dentition des Siréniens. II. Morphologie de la dentition du lamantin (*Trichechus*).

Bull. Mus. Hist. Nat. Belgique, 17(26): 1–11. 8 figs. Apr. 1941.

—Describes molars of *T. senegalensis* and *T. latirostris*, reviews literature, and comments (10–11) on dental occlusion, abrasion, and mastication, concluding that the jaw movement is posterior-to-anterior.

x Heuvelmans, Bernard

1941c. Notes sur la dentition des Siréniens. III. La dentition du dugong.

Bull. Mus. Hist. Nat. Belgique, 17(53): 1–14. 5 figs. 1 pl. Oct. 1941.

—Reviews literature and concludes that the dental formula is DI 1/3 DC 0/1 DM 3/3, I 1/(2) C 0/(1) P 0/0 M 3/3. Describes the premolars of a dugong fetus. Comments on the loss of teeth in *Hydrodamalis* (14).

x Heuvelmans, Bernard

1942. Notes sur la dentition des Siréniens. IV. Le cas de *Prorastoma veronense*.

Bull. Mus. Hist. Nat. Belgique, 18(3): 1–6. 4 figs. Jan. 1942.

—Attacks Lydekker's (1892) idea of close relationship between sirs. and selenodont artiodactyls, noting that bunosenodonty occurs in many groups.

x Heuvelmans, Bernard

1943. Notes sur la dentition des Siréniens. V. Conclusions générales.

Bull. Mus. Hist. Nat. Belgique, 19(29): 1–16. May 1943.

—Comments on the evolution of the sir. dentition; concludes that sirs. are related to proboscideans and hippos.

Hickie, John P.: SEE Worthy & Hickie, 1986.

x Hill, D. Ashley; & Reynolds, John E., III

1989. Gross and microscopic anatomy of the kidney of the West Indian manatee, *Trichechus manatus* (Mammalia: Sirenia).

Acta Anat., 135: 53–56. 1 tab. 1 fig.

—Describes the structure of the kidney and concludes that the species may have an enhanced urine-concentrating ability.

Hill, J.E.: SEE ALSO Carter et al., 1945.

Hill, J.E.

1958. Some observations on the fauna of the Maldiv Islands. II. Mammals.

Jour. Bombay Nat. Hist. Soc., 55: 3–10.

Hill, John

1752. *An history of animals. Containing descriptions of the birds, beasts, fishes, and insects, of the several parts of the world; and including accounts of the several classes of animalcules, visible only by the assistance of microscopes. In these the characters, qualities, and forms of the several creatures are described, the names by which they are commonly known, as well as those by which authors, who have written on the subject, have called them are explained: and each is reduced to the class to which it naturally belongs.*

London, Thomas Osborne, 1–584. 28 pls.

–Allen 259. Describes *Trichechus* under Plagiuri, Cetaceous Fishes (317).

Hill, Kyle

1980. Mermaids in danger.

Florida Wildlife, 34(1): 30–33. 5 figs. May–Jun. 1980.

Hill, Richard: SEE Gosse & Hill, 1851.

x Hill, Robert T.

1898. *Cuba and Porto Rico with the other islands of the West Indies: their topography, climate, flora, products, industries, cities, people, political conditions, etc.*

New York, Century Co., xxviii + 429. Illus.

–P. 56: {"The shallower waters of the borders [of Cuba] are inhabited also by that peculiar marine mammal, the manatee."}

P. 199: {"The crocodile, the manatee, and the West Indian seal inhabit the adjacent sea borders [of Jamaica]."}}

P. 298: {"Crocodiles and manatees are also found near some of the shores [of the Bahamas]."}}

Hill, W.C. Osman

1926. A comparative study of the pancreas.

Proc. Zool. Soc. London, 1926: 581–631.

Hill, W.C. Osman

1938–1939. Revised checklist of mammals of Ceylon.

Ceylon Jour. Sci., 21: 139–184.

–Dugong, 182.

Hill, W.C. Osman

1945. Notes on the dissection of two dugongs.

Jour. Mamm., 26(2): 153–175. 8 figs. "May 1945" (publ. Jul. 13, 1945).

x Hilmy, A.M.; El-Domiatiy, N.A.; & Said, M.

1979. Measurements of some physiological parameters in the herbivorous dugong and the carnivorous common dolphin of the Red Sea.

Bull. Inst. Oceanogr. Fish. Cairo, 6: 197–203. 1 tab. 6 figs. in 3 unnumbered pls.

–Arabic summ. Reports the red blood cell count, hemoglobin content, hematocrit value, serum total

proteins, protein fractions, serum total cholesterol, and potassium and sodium concentrations in blood of an adult male dugong.

Hilmy, I.S.

1949. New paramphistomes from the Red Sea dugong, *Halicore halicore*, with description of *Solenorchis* gen.n. and *Solenorchinae* subf.n.

Proc. Egypt. Acad. Sci., 4: 1–14. 7 figs. Read Feb. 1948.

–Describes parasites from dugong cecum.

Hilzheimer, Max

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Das Tier, 2(8): 12–15.
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 1964. Sea cows, the sirens of the Odyssey?
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- Hofer, Helmut: SEE Thenius & Hofer, 1960.
- Hoffman, C.A., Jr.: SEE Wing et al., 1968.
- Hoffmann, Robert S.: SEE Domning, Rice et al., 1982.
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 –Notes that “the Dugong (Mudu Ura)” has been added to the list of animals absolutely protected from hunting in Ceylon (182).
- Hoffstetter, Robert
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- Hofman, George: SEE Minch et al., 1970.
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 1963. A manatee experience.
Drum & Croaker, Jun. 1, 1963: 12.
 –Account of the captivity in the Toledo (Ohio) Zoo Aquarium of a “South American freshwater manatee” from Georgetown, British Guiana [probably *T. manatus*], Apr.–Sep. 1960. He shared a tank with a paddlefish and ate lettuce, spinach, and celery; suffered from “very loose bowels” near the end of his captivity and finally died. Death was attributed to “edema and other complications probably due to ... resting in a bent attitude with head and tail downward, resulting in skin folds blocking the urogenital opening”; but this is a normal attitude for wild manatees. Also, “severe rope lacerations ... responded slowly to Acriflavin treatment.”
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 1919. The progressive reduction of the jugal in the Mammalia.
Proc. Zool. Soc. London, 1919(1–2): 71–78. Sep. 29, 1919.
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Jour. Anthropol. Soc. Nippon (Jinruigaku Zasshi), 84(2): 139–146. 1 fig. Jun. 1976.

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Californian Illus. Mag., 3(2): 229–244. 14 figs. Jan. 1893.

—P. 236: {"The skeleton that attracts most attention [in the Academy's collection] is that of the great sea-cow, or Rhytina, that was discovered by Steller on our northwest coast. There are but two or three good skeletons known, this being one of the best."} This skeleton was destroyed in the San Francisco earthquake and fire in 1906. See also L. Stejneger (1893).

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1829. *Handbuch der Petrefaktenkunde... Erstes Bändchen*.

Dresden, P.G. Hilscher'sche Buchhandlung (Allgemeine Taschenbibliothek der Naturwissenschaften, 9. Theil), viii + 115.

—Allen 726. In four "Bändchen," paged consecutively (pp. 1–489), the last two dated 1830. *Hippopotamus intermedius* [= *Metaxytherium medium*], 57; *H. dubius* or *minimus* [= *Protosiren minima*], 58; *Manatus fossilis* [= *Metaxytherium medium*], 69.

x Holland, W.J.

1917. The mammals of the Isle of Pines.

Ann. Carnegie Mus., 11(3/4): 356–358. Nov. 5, 1917.

—P. 356: {"Order SIRENIA (Sea-cows). Family MANATIDAE Gray. Genus *Manatus* Brünnich. 1. *Manatus manatus* (Linnaeus). The manatee is known to occur in the lagoons about Siguanea Bay [Cuba]. An effort to secure a license to take a specimen for the Museum was made by Mr. Link, but was unsuccessful."}

Hollister, N.

1912. A list of the mammals of the Philippine Islands, exclusive of the Cetacea.

Philippine Jour. Sci., 7D(1): 1–64. Feb. 1912.

—Dugong, 3, 45–46.

Holme, T.K.

1956. [title?]

Jour. [?] Malayan Angling Assoc., 4(1): 26. Jun. 1956.

—Report of a three-foot-long dugong at Port Dickson, Malaya.

x Holton, Isaac F.

1857. *New Granada: twenty months in the Andes*.

New York, Harper & Bros., 1–605.

—P. 46: {"Next comes a pond that I suspect is brackish, La Laguna de Tesca. Your peon will tell you strange stories of the viviparous fish—manati—with women's breasts, found there. It is the *Manatus Americanus*, a mammal. This is Herndon's cow-fish, a staple article of food on the Amazon, but not often caught here [near Cartagena, Colombia]. No wonder that its meat is not like fish, for it is no more a fish than a seal or a whale is."}

Home, Everard: SEE ALSO Raffles, T.S., 1820.

x Home, Everard

1820a. On the milk tusks, and organ of hearing of the dugong.

Philos. Trans. Roy. Soc. London, 110(2)(Art. 9): 144–155. Pls. 12–14. Read Apr. 13, 1820.

—Allen 589. Discusses replacement of the tusks (146–149, 153, pls. 12–14) and the ear apparatus (149–153); describes a specimen with two vestigial lower incisors (153–154, pl. 14). "The plates give profile and basilar views of the skull, section of the tusk, milk dentition, lower jaw, incisors, and section of molars" (Allen).

x Home, Everard

1820b. Particulars respecting the anatomy of the dugong, intended as a supplement to Sir T. S. Raffles' account of that animal.

Philos. Trans. Roy. Soc. London, 110(2)(Art. 20): 315–323. Pls. 25–31. Read Jun. 29, 1820.

—Allen 590. Describes the teeth, skeletons, and internal organs of a male and a female dugong sent by Raffles. The plates show the entire animal, the stomach, tongue, cecum, heart, part of the trachea and lungs, sexual organs, sternum, and pelvic bones.

x Home, Everard

1821a. An account of the skeletons of the dugong, two-horned rhinoceros, and tapir of Sumatra, sent to England by Sir Thomas Stamford Raffles, Governor of Bencoolen.

Philos. Trans. Roy. Soc. London, 111(2)(Art. 18): 268–275. Pls. 20–24. Read Mar. 22, 1821.

—Allen 602. Notes that the arrangement of the lungs and skeleton of the dugong result in its passively maintaining a horizontal posture (268–270); illustrates the skeleton of a female (pl. 20).

x Home, Everard

1821b. On the peculiarities that distinguish the manatee of the West Indies from the dugong of the East Indian seas.

Philos. Trans. Roy. Soc. London, 111(2)(Art. 26): 390–391. Pls. 26–29. Read Jul. 12, 1821.

—German ?transl.: *Froriep's Notizen*, 2: 260–261,

Jun. 1822 (Allen 614). Comments on the anatomy of the manatee in comparison with the dugong; the plates show a manatee, its skeleton, stomach, and cecum.

Home, Everard

1823. *Lectures on comparative anatomy; in which are explained the preparations in the Hunterian Collection. Illustrated by engravings. To which is subjoined, Synopsis systematis regni animalis, nunc primum ex ovi modificationibus propositi...* Vol. III [-IV].

London, Longman, Hurst, Rees, Orme, & Brown (entire work, 6 vols., 1814–1828), Vol. 3 (text): xvii + 586; Vol. 4 (plates): i-viii, 171 pls.

–Allen 627. The plates of sirs. (pls. 21–27, 50–56, 116) all first appeared in Home (1820a,b; 1821a,b).

D Honda, A.

1927. On the “*Desmostylus*.”
Jour. of Zoology of Japan, 39: 435.
–Regards *Desmostylus* as a monotreme.

Honda, Katsuhisa: SEE Miyazaki et al., 1979.

x Hooijer, Dirk Albert

1952. Fact and fiction in hippopotamology (sampling the history of scientific error).
Osiris, 10: 109–116.

–Reviews the nomenclatural history of “*Hippopotamus minimus*” and “*Hippopotamus medius*,” noting that the first is a senior synonym of *H. dubius*. Corrects the name of *Protosiren(?) dubia* to *P.(?) minima*, new combination (113–114).

x Hooijer, Dirk Albert

1977. A sirenian skeleton from the Miocene of Eibergen, Province of Gelderland, The Netherlands: *Metaxytherium* cf. *medium* (Desmarest).
Scripta Geol., 41: 1–25. 6 pls.

–Describes and compares a partial skeleton of Middle-Late Miocene (Langenfeldian-Badenian?) age in the Leiden Museum.

x Hooijer, Dirk Albert

1982. A sirenian rib dredged from the Western Scheldt, The Netherlands.

Netherlands Jour. Zool., 32(2): 261–262. Pl. 1.
–Describes the distal portion of a rib, of unknown age but resembling those of *Metaxytherium* cf. *medium* from the Miocene of Eibergen (see Hooijer, 1977).

xD Hooijer, Dirk Albert

1984. The solution of the *Cryptomastodon* problem.
Netherlands Jour. Zool., 34(2): 228–231. 1 fig.
–Shows that the supposed desmostylian *Cryptomastodon martini* v. Koenigswald, 1933, was based on material of *Stegodon* (Proboscidea) and *Geochelone* (Chelonia).

Hopewell-Smith, Arthur

1913. *An introduction to dental anatomy and physiology, descriptive and applied.*

London, J. & A. Churchill, xx + 372. Frontisp. 334 figs. 5 pls.

Hopkins, David M.: SEE ALSO MacNeil et al., 1961.

Hopkins, David M.

1967. The Cenozoic history of Beringia—a synthesis. In: D.M. Hopkins (ed.), *The Bering Land Bridge.*

Stanford Univ. Press, 451–484. 4 figs.

–Sirs., 479. See also W.S. Laughlin (1967) and V.B. Scheffer (1967).

x Hopwood, A. Tindell

1927. Sirens in fancy and in fact.

Nat. Hist. Mag. (London), 1(1): 17–21. 3 figs. Jan. 1927.

–Pop. acc. of fossil and Recent sirens and the mermaid legend. Notes the existence of a partial skeleton of *Metaxytherium* from Ragusa, Sicily, in the British Museum.

Horikawa, Hideo: SEE ALSO Kobayashi et al., 1988; Miyazaki et al., 1988.

D Horikawa, Hideo; Kobayashi, Iwao; & Takahashi, Keiichi

1987. [Marine mammal fossils from Niigata Prefecture.] In: Y. Hasegawa (ed.), [Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals.]

Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 18–20. Mar. 1987.

–In Japanese.

Hornaday, W.T.

1895. Manatee, tapir, and peccary.

St. Nicholas, 22: 1038. Oct. 1895.

Horsfield, Thomas

1851. *A catalogue of the Mammalia in the Museum of the Hon. East-India Company.*

London, W.H. Allen & Co., vi + 212.

–Lists a skull of *Halicore dugung* from Siam (139).

Hoshita, Takahiko: SEE Kuroki et al., 1988; Yoshii et al., 1989.

Houhoullis, Paula

1990. Excerpts from [a senior thesis entitled] Applications of the Geographic Information System to manatees (*Trichechus manatus*) in West Tampa Bay, Florida. In: J.E. Reynolds, III & K.D. Haddad (eds.), Report of the Workshop on Geographic Information Systems as an Aid to Managing Habitat for West Indian Manatees in Florida and Georgia.

Florida Mar. Res. Publ., 49: 54–57. Dec. 1990.

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Amsterdam, F. Houttuyn (18 parts, 1761–1773).
–Allen 283. *Manati*, 1: 462.
- Howard, Hildegarde: SEE ALSO Barnes et al., 1981.
- D Howard, Hildegarde
1966. A possible ancestor of the Lucas auk (Family Mancallidae) from the Tertiary of Orange County, California.
Los Angeles County Mus. Contrib. Sci., No. 101: 1–8.
- Howell, Alfred Brazier
1930. *Aquatic mammals: their adaptations to life in the water*.
Springfield (Ill.) & Baltimore, Charles C Thomas; London, Bailliere, Tindall, & Cox, xii + 338. 54 figs.
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- Howell, John H.
1968. The Borgu Game Reserve of northern Nigeria: Part 2.
Nigerian Field, 33(4): 147–165. 1 tab. 5 pls. Oct. 1968.
–Discusses the occurrence, natural history, and hunting of *T. senegalensis* in the Doro River Forest Reserve, which is to be added to the Borgu Game Reserve (150–151, 165).
- x Howes, C.A.; & Bamber, M.
1970. Rarities in a museum.
Oryx, 10(5): 326–328. Sep. 1970.
–Lists *Dugong* specimens from Kenya and Ceylon in the Royal Albert Memorial Museum, Exeter, England (327).
- Howes, G.B.
1893. On the coracoid of the terrestrial Vertebrata.
Proc. Zool. Soc. London, 1893(3): 585–592. 2 figs. Oct. 1893.
–Sirs., 572 (?).
- x Howes, G.B.; & Harrison, J.
1893. On the skeleton and teeth of the Australian dugong.
Rept. Brit. Assoc. Adv. Sci., 62nd Meeting (Edinburgh, 1892): 790.
–Observations on vertebral epiphyses, phalanges, and dentition in the dugong; compares the dugong with the manatee, *Halitherium*, *Metaxytherium*, and Cetacea.
- Hoz-Zavala, Ma. Elia: SEE Colmenero-Rolón & Hoz-Zavala, 1986.
- Huber, G.C.: SEE Kappers et al., 1960.
- Hucke, K.; & Voigt, E.
1929. Beiträge zur Kenntnis der Fauna des norddeutschen Septarientones.
Zs. Deutsch. Geol. Ges., 81: 159–168. 2 pls.
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1977a. The dugong *Dugong dugon* (Müller 1776) in Papua New Guinea: a programme for conservation, management and public education.
Wildlife in Papua New Guinea, 77/14: iv + 41 + 9 pp. between pp. 29 & 30 + 11 pp. between pp. 35 & 36. 8 figs.
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1977b. Dugong: distribution, hunting, protective legislation and cultural significance in Papua New Guinea.
Wildlife in Papua New Guinea, 77/16: 1–22. 21 figs.
–Results of two mail surveys to determine dugong distribution, hunting areas, hunting methods, population dynamics, needed conservation measures, and cultural significance in PNG. Includes a selection of dugong legends.
- Hudson, Brydget E.T.
1978. Papua New Guinea's national animals.
Wildlife in Papua New Guinea, 78/2: [1–14]. 33 figs.
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1979. Dugong conservation, management and public education programme in Papua New Guinea.
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Wildlife in Papua New Guinea, 80/8: 1–102. 65 figs.
–Detailed report on dugong-related activities in PNG, with extensive appendices including post-

- ers, public-education aids, questionnaires, and other documents.
- Hudson, Brydget E.T.
1980b. Aerial surveying of dugongs and other marine resources. *Wildlife in Papua New Guinea*, 80/14.
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—Describes the program's history and aims, its present scope, and the educational and research methods used. Also includes as appendices sample carcass and aerial survey data sheets (388-398).
- Hudson, Brydget E.T.
1983. Dugongs of the northern Torres Strait: aerial surveys, observations during a tagging project, catch statistics, with recommendations for conservation and management. [Abstr.] *Proc. Pacif. Sci. Congress*, 15(1-2): 108.
- x Hudson, Brydget E.T.
1984. So long, dugong. *BBC Wildlife*, 2(6): 298-301. 5 figs. Jun. 1984.
—Pop. acc. of the linkage between the decline of dugongs and cultural change among the Kiwai of Papua New Guinea.
- Hudson, Brydget E.T.
1986a. The hunting of dugong at Daru, Papua New Guinea, during 1978-1982: community management and education initiatives. In: A.K. Haines, G.C. Williams, & D. Coates (eds.), *Torres Strait Fisheries Seminar, Port Moresby, 11-14 February 1985*. Canberra, Austral. Govt. Publ. Serv. (vii + 344), 77-94. 5 figs.
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1969. Dugong status survey in Mozambique. *World Wildlife Yearbook* (World Wildlife Fund), 1969: 137-139.
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1971. Referência preliminar às tartarugas marítimas e dugongues de Moçambique. *Veter. Moçambique* (Lourenço Marques), 4(2): 45-62.
—Based on interviews with fishermen, discusses past and present dugong distribution in Mozambique and in the Maputa River, the need for enforcement of existing protective laws, and the

need for sanctuaries (58–62).

- x Hughes, George R.; & Oxley-Oxland, R.
1971. A survey of dugong (*Dugong dugon*) in and around Antonio Enes, northern Moçambique. *Biol. Conserv.*, 3(4): 299–301. 3 figs. Jul. 1971.
–Reports the results of a brief aerial survey (27 dugongs sighted) and an interview with a fisherman, together with measurements of one dugong. Comments on dugong habits and the construction and use of dugong nets; concludes that there is a substantial dugong population in the area and that hunting pressure is slight. The survey result was also mentioned by Hughes in *South Afr. Assoc. Mar. Biol. Res. Bull.*, No. 9: 43, 1971.
- xD Hulbert, Richard C., Jr.
1992. A checklist of the fossil vertebrates of Florida. *Papers in Florida Paleontology*, No. 6: 1–35. 1 tab. May 1992.
–Lists the fossil sirs. *Protosiren* sp., *Crenatosiren olseni*, *Dioplotherium manigaulti*, *Crystosiren varguezii*, “*Hesperosiren*” *crataegensis*, *Metaxytherium calvertense*, *M. floridanum*, *Trichechus* sp., and *T. manatus* from Florida. Considers the presence of desmostylians in Florida “extremely doubtful” (28–29, 33).
- x Hulbert, Richard C., Jr.; & Morgan, Gary Scott
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–Lists *T. manatus* in the faunal lists from Leisey Sites 1A, 3A, and 3B, Hillsborough County, Florida (11).
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- x Humphreys, John
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–P. 8: {“In Edentates we find the teeth of the sloths are formed of a dentine permeated by vascular canals, hence termed vaso-dentine. The megatherium, the gigantic extinct sloth of South America, exhibits this variety very clearly, in which the dentine and the cementum also were rich in looped blood-vessels which traversed the structures.
“The teeth of the manatee possess similar characteristics...”}
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 1989. [*Extinct Japanese giant mammals*.]
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 1961. On the skulls of *Desmostylus mirabilis* Nagao from South Sakhalin and of *Paleoparadoxia*

tabatai (Tokunaga) from Gifu Prefecture, Japan. *Earth Science (Chikyu Kagaku)*, 53: 1-27. 1 tab. 22 figs. 6 pls.

—In Japanese; Engl. summ. Engl. transl.: NTIS Document No. TT 74-53093.

Ijiri, Syozi: SEE Ijiri, Shoji.

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1972. Neogene biostratigraphy and radiometric time scale of Japan—an attempt at intercontinental correlation.

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—Discusses the stratigraphic ranges of *Desmostylus japonicus* and *Paleoparadoxia tabatai* in Japan (44-45, 47, 48, 65-66).

Iker, E.

1982. Look what we've done to our wetlands.

Natl. Wildlife, 20: 42. Jun.-Jul. 1982.

Ilani, Giora: SEE ALSO Paz & Ilani, 1976.

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1976. More about dugongs.

Israel—Land and Nature, 1(4): 161. 1 fig. Jul. 1976.

—Reports a pregnant female dugong caught in a fishing net in the Gulf of Aqaba, Jan. 7, 1976.

x Illiger, Carl

1811. *Prodromus systematis mammalium et avium additis terminis zoographicis utriusque classis, eorumque versione Germanica.*

Berlin, sumptibus C. Salfeld, xviii + 302.

—Allen 523. Introduces the name Sirenia, applying it to a family within the "Ordo Natantia," and recognizes and diagnoses three monospecific genera: *Manatus*, *Halicore* (new name), and *Rytina* (new name) (140-141). These are based on, respectively, the nominal species *Trichechus Manatus australis*, *T. Dugong*, and *T. Manatus borealis*, but the implied new combinations are not printed. *Halicore* is preferred to the name *Dugong* because the latter is not of Greek or Latin origin (xvii). *Rytina* is an incorrect transliteration of the Greek but is nonetheless the "correct original spelling" of the generic name.

Illiger, Carl

1815. Ueberblick der Säugthiere nach ihrer Vertheilung über die Welttheile.

Abh. Akad. Wiss. Berlin, 1804-1811: 39-159. 5 tabs. Read Feb. 28, 1811.

—Allen 544. *Sirs.*, 53, 61, 64, 68, 70, 75, 79, 87, 91, 99, 103, 105, 110, 122; tabs. 1-5. The Family Sirenia is included with the Family Cete in the Order Natantia. Eight species are recognized: *Manatus australis*, *M. Americanus*, *M. fluviatilis*,

M. sphaerurus, *M.? Simia*, *Rytina borealis*, *R. cetacea*, and *Halicore cetacea*. "*M. australis*" is placed in the Indian Ocean and Australia together with "*H. cetacea*," based on the testimony of Dampier. *M. Americanus* and *M. fluviatilis* are both attributed to South America; one of them (it is not specified which) is said to be found in large rivers and estuaries. *M. sphaerurus* is Adanson's Senegalese manatee. "*M.? Simia*" is Steller's "sea-ape." "*R. borealis*" and "*R. cetacea*" are used interchangeably. The name *Trichechus* appears in Tab. 5, together with *Manatus*, *Halicore*, and *Rytina*.

Allen pungently comments on this work, stating that "the lists are, so far at least as the *Cete* and *Sirenia* are concerned, worthless conglomerations, which, as in the case of other groups treated in the same connection, appear to contain some names coined for the occasion, without descriptions or textual references. The paper may be safely ignored so far as Cetology is concerned." See also I. von Olfers (1818).

Imai, Nobumi: SEE Tabuchi et al., 1974.

Imes, George D., Jr.: SEE Budiarto et al., 1979.

Ingersoll, Ernest

1907. *The life of mammals.*

New York, Macmillan Co., xi + 555.

Ingles, L.G.

1958. Notas acerca de los mamíferos mexicanos.

An. Inst. Biol. Mex., 29: 374-408.

—*Sirs.*, 408.

x International Commission on Zoological Nomenclature (ICZN)

1925. Opinion 90: Report on sixteen generic names of mammals for which suspension of rules was requested.

Smithson. Misc. Coll., 73(3): 34-40. Dec. 16, 1925.

—Rules that the name *Rytina* be suppressed in favor of *Hydrodamalis*; a decision on *Manatus* vs. *Trichechus* is referred to a committee for a final decision (34, 38-40). See ICZN (1929).

x International Commission on Zoological Nomenclature (ICZN)

1929. Opinion 112: Suspension declined for *Manatus*, 1772 vs. *Trichechus*, 1758.

Smithson. Misc. Coll., 73(6)(3016): 19. Jun. 8, 1929.

—Recognizes *Trichechus* as the official generic name of the manatees and not of the walrus. See also F. Hemming (1952).

x International Commission on Zoological Nomenclature (ICZN)

1989. Opinion 1535: *Halianassa studeri* von Meyer,

1838 (Mammalia, Sirenia): neotype designated; and *Halitherium* Kaup, 1838 (Mammalia, Sirenia): *Pugmeodon schinzii* Kaup, 1838, designated as the type species.

Bull. Zool. Nomencl., 46(1): 83–84. Mar. 1989.

—Pursuant to the petitions of Domning (1987b), *Halitherium* is deemed to be the correct original spelling of *Halytherium*; the holotype of *Pugmeodon schinzii* is designated as the neotype of *Halianassa studeri*; *P. schinzii* is designated as the type species of *Halitherium*; *Halitherium* and (*Pugmeodon*) *schinzii* are placed on the Official Lists of Names in Zoology; and *Halianassa*, *Halytherium*, and (*Halianassa*) *studeri* are placed on the Official Indexes of Rejected and Invalid Names. The main outcome of these actions is that the name *Halianassa studeri* is fixed as an objective junior synonym of the Oligocene species *Halitherium schinzii*, and *Halianassa* and *H. studeri* are thereby made unavailable for application to the Miocene specimens for which they have most often been used.

International Union for the Conservation of Nature and Natural Resources (IUCN)

1966–. *Red data book. 1. Mammalia.*

Morges (Switzerland), IUCN.

—Looseleaf compilation, periodically updated, of natural history, distributional, and status data on threatened and endangered species, based on published literature and original reports of various contributors. The 1972 *Red data book* was a completely new ed.

Inuzuka, Norihisa: SEE ALSO Aizu Fossil Research Group; Ijiri & Inuzuka, 1989; Kamei et al., 1989; Kaneko & Inuzuka, 1992; Yamaguchi et al., 1981.

D Inuzuka, Norihisa

1977. On the right third inferior molar of *Paleoparadoxia tabatai* from “Wainai” remains, Iwate Prefecture.

Earth Science (Chikyu Kagaku), 31(4): 165–166. 2 figs. Jul. 1977.

—In Japanese.

D Inuzuka, Norihisa

1980a. The skeleton of *Desmostylus mirabilis* from South Sakhalin. I. Atlas and thoracic vertebrae.

Earth Science (Chikyu Kagaku), 34(4): 205–214. 2 tabs. 6 figs. 9 pls. Jul. 1980.

—In Japanese; Engl. summ.

D Inuzuka, Norihisa

1980b. The skeleton of *Desmostylus mirabilis* from South Sakhalin. II. Lumbar vertebrae, sacrum and coccygeal vertebrae.

Earth Science (Chikyu Kagaku), 34(5): 247–257. 2 tabs. 5 figs. 6 pls. Sep. 1980.

—In Japanese; Engl. summ.

D Inuzuka, Norihisa

1981a. The skeleton of *Desmostylus mirabilis* from South Sakhalin. III. Ribs, scapula and os coxae.

Earth Science (Chikyu Kagaku), 35(1): 1–18. 2 tabs. 20 figs. 6 pls. Jan. 1981.

—In Japanese; Engl. summ.

D Inuzuka, Norihisa

1981b. The skeleton of *Desmostylus mirabilis* from South Sakhalin. IV. Metacarpus.

Earth Science (Chikyu Kagaku), 35(5): 240–244. 2 figs. 2 tabs. 1 pl. Sep. 1981.

—In Japanese; Engl. summ.

D Inuzuka, Norihisa

1981c. A trial method of the mounting—basis of the skeletal reconstruction of *Desmostylus*.

Fossil Club Bull., 14: 1–7.

—In Japanese.

D Inuzuka, Norihisa

1982a. The skeleton of *Desmostylus mirabilis* from South Sakhalin. V. Limb bones.

Earth Science (Chikyu Kagaku), 36(3): 117–127. 1 tab. 8 figs. 2 pls. May 1982.

—In Japanese; Engl. summ.

D Inuzuka, Norihisa

1982b. [Atlas of reconstructed desmostylians.]

Saitama (Japan), Assoc. for the Geological Collaboration in Japan, 1–16. Illus.

—In Japanese.

D Inuzuka, Norihisa

1984a. [Restoration of *Desmostylus*.]

Tokyo, Kaimeisha, 1–146. 1 tab. 38 figs. Sep. 1984.

—In Japanese. Review: T. Urushido, *Modern Geology*, 9: 325–326, 1985.

D Inuzuka, Norihisa

1984b. Skeletal restoration of the desmostylians: herpetiform mammals.

Mem. Fac. Sci. Kyoto Univ., Ser. Biol., 9(2): 157–253. 11 tabs. 27 figs. 11 pls. Oct. 1984.

D Inuzuka, Norihisa

1984c. Studies and problems on the Order Desmostylia.

Monogr. Assoc. Geol. Collab. in Japan, 28: 1–12. 3 tabs. 2 figs. May 1984.

—In Japanese; Engl. summ. See also T. Kamei (1984).

D Inuzuka, Norihisa

1984d. Morphological restoration of *Desmostylus*.

Monogr. Assoc. Geol. Collab. in Japan, 28: 101–118. 2 tabs. 6 figs. 6 pls. May 1984.

—In Japanese; Engl. summ. See also T. Kamei (1984).

D Inuzuka, Norihisa

1985. Are “herpetiform mammals” really impossible? A

reply to Halstead's discussion.

Mem. Fac. Sci. Kyoto Univ., Ser. Biol., 10(2): 145–150. 2 figs. Sep. 1985.

—Japanese transl.: *Jour. Fossil Research*, 18(2): 69–72, 2 figs., Dec. 1985. See L.B. Halstead (1985).

D Inuzuka, Norihisa

1986. Hyracoidea; Proboscidea; Desmostylia; Sirenia. In: M. Goto & N. Otaishi (eds.), *Comparative odontology*. Tokyo, Ishiyaku-shuppan, 177–187.

D Inuzuka, Norihisa

1987a. [Evolutionary significance of primitive desmostylians.] In: Y. Hasegawa (ed.), [*Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals.*]

Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 35–43. 1 fig. Mar. 1987.

—In Japanese.

D Inuzuka, Norihisa

1987b. Primitive desmostylians, *Behemotops* and the evolutionary pattern of the Order Desmostylia. In: *Professor Masaru Matsui Memorial Volume*. Sapporo, 13–25. Pls. 1–2. May 1987.

—In Japanese; Engl. summ. Coins the new familial name *Behemotopsidae* (16).

D Inuzuka, Norihisa

1988a. The skeleton of *Desmostylus* from Utanobori, Hokkaido, I. Cranium. *Bull. Geol. Surv. Japan*, 39(3): 139–190. 6 tabs. 17 figs. 8 pls.

—In Japanese.

D Inuzuka, Norihisa

1988b. [Restoration of extinct mammals, desmostylians.] *Biomechanism*, 9: 7–19. 2 tabs. 19 figs.

—In Japanese.

D Inuzuka, Norihisa

1988c. [Re-examination of tooth identification of *Desmostylus*—type specimen of *D. japonicus* (Togari specimen).] In: Y. Hasegawa (ed.), [*Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals.*]

Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 107–122. 1 fig. Mar. 1988.

—In Japanese.

D Inuzuka, Norihisa

1988d. [Body weight of *Desmostylus*.] In: Y. Hasegawa (ed.), [*Study on fossil marine mammals from Japan (Subject of study) Studies on biostratigra-*

phy and paleontology of Cenozoic marine mammals.]

Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 123–124. Mar. 1988.

—In Japanese.

D Inuzuka, Norihisa

1989a. [III–2. *Desmostylus* and *Behemotops*.] In: *Report of research on the Ashoro mammalian fauna*.

Ashoro (Japan), Ashoro Town Board of Education (201 pp.), 40–76. 1 tab. 52 figs. Mar. 31, 1989.

—In Japanese. An article entitled “Preparation and casting” by Kenichiro Eguchi in the same volume (pp. 121–153, 3 tabs., 53 figs.) describes the preparation and reproduction of the *Behemotops* bones.

D Inuzuka, Norihisa

1989b. Reconsideration of tooth class identification in *Desmostylus*, with special reference to the holotype of *D. japonicus* (Togari specimen).

Jour. Geol. Soc. Japan, 95(1): 17–31. 1 tab. 14 figs. Jan. 1989.

—In Japanese; Engl. summ.

D Inuzuka, Norihisa

1989c. [*Desmostylus*.]

Chishitsu News, No. 421: 1–4, 6–11. 6 figs. 8 pls. Sep. 1989.

—In Japanese.

D Inuzuka, Norihisa; Akiyama, Masahiko; & Ootsuki, Hideo

1977. Desmostylian molar found from Kamiatsunai, Urahoro-cho, Tokachi-gun, Hokkaido. *Jour. Geol. Soc. Japan*, 83(2): 139–141. 1 tab. 3 figs.

—In Japanese.

xD Inuzuka, Norihisa; & Iwamizama Research Group

1980. First discovery of *Dugong* (Dugonginae) from the Middle Miocene in Kogawa, Kitahiyama-cho, Hokkaido.

Jour. Geol. Soc. Japan, 86(9): 639–641. 2 figs. Sep. 1980.

—In Japanese. Describes an isolated tooth identified as a *Dugong* molar. I have suggested (in Barnes et al., 1985: 31–32 and Takahashi et al., 1986: 317) that it may instead represent *Paleoparadoxia*.

D Inuzuka, Norihisa; & Karasawa, Hiroaki

1986. Some fossils of *Paleoparadoxia* from Miocene calcareous sandstones on the Noto Peninsula, central Japan.

Earth Science (Chikyu Kagaku), 40(4): 294–300. 1 tab. 7 figs. Jul. 1986.

—In Japanese.

D Inuzuka, Norihisa; & Murai, Takefumi

1980. On a left third inferior molar of *Paleoparadoxia*

- tabatai* from the Moniwa Formation, Miyagi prefecture.
Earth Science (Chikyu Kagaku), 34(2): 105-108. 1 tab. 4 figs. Mar. 1980.
 -In Japanese.
- D Inuzuka, Norihisa; Takayasu, Katsumi; & Tanito, Shigeru
 1985. A metatarsus of *Desmostylus* from Miocene Fujina Formation, Shimane Prefecture, Japan.
Earth Science (Chikyu Kagaku), 39(6): 453-458. 1 tab. 3 figs. 1 pl. Nov. 1985.
 -In Japanese.
- Irvine, A. Blair: SEE ALSO Bachman & Irvine, 1979; Campbell & Irvine; Neal et al., 1979.
- x Irvine, A. Blair
 1982. West Indian manatee. In: D.E. Davis (ed.), *CRC handbook of census methods for terrestrial vertebrates*. Boca Raton (Florida), CRC Press (397 pp.), 241-242.
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1838b. [Über Zähnen von *Halitherium* und *Dugong*.]
Neues Jahrb. Min. Geogn. Geol. Pet., 1838: 536.
–Allen 937. The original spelling *Halytherium* is here changed to *Halitherium*. Corrects the statement in Kaup (1838a) that the dugong has only two cheek teeth, rather than five [actually six!], and contrasts the root construction in this genus with that of *Halitherium*.
- x Kaup, Johann Jakob
1840. Notizen über die fossilen sogenannten Grasfressenden Wale.
Neues Jahrb. Min. Geogn. Geol. Pet., 1840: 673–676.
–Allen 997. Discusses, and hopelessly ensnarls, the synonymy of *Halitherium*, *Halianassa*, *Hippopotamus*, and *Manatus* spp.; mentions the name "*Fucotherium*" as one he will not propose (675); and proposes the replacement name "*Ponotherium* Bruno" for *Cheirotherium* Bruno (676)!
- Kaup, Johann Jakob
1841. *Akten der Urwelt oder Osteologie der urweltlichen*

Säugethiere und Amphibien.

Darmstadt, publ. by the author, x + 54. 14 pls.

—Describes *Cymatotherium antiquum*, n.gen.n.sp. (11–14, pl. 4), a supposed sir., based on a ?fetal mandible of a proboscidean from Germany.

Kaup, Johann Jakob

1855. *Beitraege zur naeheren Kenntniss der urweltlichen Saeugethiere.... Zweites Heft.*

Darmstadt, C.W. Leske, 1–23. 7 pls.

—The entire work was published in five parts, 1854–1861; see also Kaup (1861). Proposes a quaternary classification of sirs. and other mammals.

Kaup, Johann Jakob

1856. Ueber einen vollständigen *Halitherium* Gaumen mit Zähnen.

Neues Jahrb. Min. Geogn. Geol. Pet., 1856: 19–21. Pl. 1.

Kaup, Johann Jakob

1858. *Halitherium* besitzt einen rudimentären Femur.

Neues Jahrb. Min. Geogn. Geol. Pet., 1858: 532–534. Pl. 21.

Kaup, Johann Jakob

1861. *Beitraege zur naeheren Kenntniss der urweltlichen Saeugethiere.... Fuenftes Heft.*

Darmstadt & Leipzig, Eduard Zernin, 1–32. 5 pls.

—See also Kaup (1855). Supplemental information on *Halitherium Schinzi*, 31–32, pl. 5.

Kaup, Johann Jakob; & Scholl, Johann Baptist

1834a. Catalogue des plâtres des ossements fossiles, qui se trouvent dans le cabinet d'histoire naturelle du Grand-Duc de Hesse.

Bull. Soc. Nat. Moscou, 7: 200–216.

—Published previously as a separate, Darmstadt, 1832?

x Kaup, Johann Jakob; & Scholl, Johann Baptist

1834b. *Verzeichniss der Gypsabgüsse von dem ausgezeichnetsten urweltlichen Thierresten des Grossherzoglichen Museum zu Darmstadt.... Zweite vermehrte und verbesserte Ausgabe.*

Darmstadt, Johann Philipp Diehl, 1–28. 6 figs. Sep. 1834.

—First publication of the nomen nudum *Pugmeodon Schinzii* (16), based on a tooth (not illustrated) “Aus dem tertiären Sand bei Flonheim...” (Oligocene, Germany). I have not seen the first (1832) ed. and cannot say if this name appeared there also.

Kautz, Randy S.

1990. Use of a Geographic Information System in wildlife habitat protection planning in Florida. In: J.E. Reynolds, III, & K.D. Haddad (eds.), Report of the Workshop on Geographic Information Systems as an Aid to Managing Habitat for West Indian Manatees in Florida and Georgia.

Florida Mar. Res. Publ., 49: 45–50. 2 tabs. 5 figs.

Dec. 1990.

Kawaguchi, S.; & Shibata, A.

1972. An electron microscopic study of back protrusion of sea-cow.

Zool. Mag., 81: 310–311.

Kawai, Shin-ichiro: SEE Miyazaki et al.

Kawakami, Takeshi: SEE Oishi & Kawakami, 1984; Oishi et al., 1990.

Kazanskaya, N.I.: SEE Kalashnikova & Kazanskaya, 1986.

Kaźmierczak, T.

1964. Czy krowa morska *Rhytina stelleri* żyje jeszcze? *Protection of Nature in Poland (Chrońmy Przyrodę Ojczystą)*, 20(4): 25–29, 53. 2 figs.

—Engl. summ., p. 53.

Keates, G.

1788. *An account of the Pelew Islands, situated in the western part of the Pacific Ocean.*

London, G. Nicol, 1–378.

Kecskemeti, T.: SEE Detre et al., 1971.

x Keferstein, Christian

1834. *Die Naturgeschichte des Erdkörpers in ihren ersten Grundzügen dargestellt.*

Leipzig, Friedrich Fleischer (2 vols.), Vol. 2: iv + 896.

—Records *Manatus fossilis* “aus dem Grobkalk von Angers, Doué &c., tertiairem Mergel von Leutmeritz in Böhmen, aus Maryland in Nord-Amerika” (2: 217). It is possible that “*Phoca magna*” from the Miocene of France (2: 224–225) also represents a sir. (i.e., *Metaxytherium medium*).

Kehrer, F.A.

1896. Zur Phylogenie des Beckens.

Verh. Naturhist.-med. Ver. Heidelberg (n.s.), 5: 346–359. Pls. 7–8.

—Publ. 1895? Sirs., 357, fig. 40.

x Keith, Kent

1968. Mammals of the Pellew Islands.

Mimag (Mount Isa Mines Ltd., Australia), 19(2): 19–21. 10 figs. Jun. 1968.

—“Herds of up to a hundred” dugongs reported near the mouth of the McArthur River, Gulf of Carpentaria, Australia (20).

Kelaart, Edward Frederic

1852–1853. *Prodromus faunae zeylanicae; being contributions to the zoology of Ceylon (Appendix).*

Colombo, printed for the author, 2 vols. in 1.

—Discusses *Halicore dugung*, 89.

Keller, G.: SEE Andreae & Keller, 1901.

x Keller-Leuzinger, Franz

1874. *The Amazon and Madeira Rivers.*

London, Chapman and Hall, xvi + 177.

—Brief, unspecific paragraph on the manatee (81); fig. on p. 83. Also on p. 83 is an account of

- water-monster and "mother of waters" superstitions, with, however, no connection drawn to manatees.
- Kelley, Don Greame: SEE Harry, R.R., 1956.
- Kellogg, Remington: SEE ALSO Miller & Kellogg, 1955; Packard & Kellogg, 1934.
- Kellogg, Remington
1924. Tertiary pelagic mammals of eastern North America.
Bull. Geol. Soc. Amer., 35: 755-766.
-Sirs., 755.
- x Kellogg, Remington
1925. A new fossil sirenian from Santa Barbara County, California.
Carnegie Inst. Wash. Publ., No. 348: 57-70. Pls. 9-11. Apr. 1925.
-Describes *Metaxytherium jordani*, n.sp., from the Upper Miocene of Lompoc and discusses its relationship to *Hydrodamalis*. Refers *Dioplotherium manigaulti* Cope to *Metaxytherium* (59) without, however, writing out the implied new combination.
- Kellogg, Remington
1929a. Extinct ocean-living mammals from Maryland.
Explor. Field Work Smithsonian Inst., 1928 [1929]: 27-32. 4 figs.
- Kellogg, Remington
1929b. A new fossil toothed whale from Florida.
Amer. Mus. Novit., No. 389: 1-10.
-Mentions *Felsinotherium*, 1.
- xD Kellogg, Remington
1931. Pelagic mammals from the Temblor Formation of the Kern River region, California.
Proc. Calif. Acad. Sci., (4)19(12): 217-397. 134 figs. Jan. 30, 1931.
-Reviews the distribution of desmostylians (219-227) and gives the synonymy and type localities for *Cornwallius sookensis*, *Desmostylus cymatias*, *D. californicus*, *D. hesperus*, and *D. japonicus*, all of which he provisionally recognizes. Reports a *Desmostylus* tooth from the Upper Miocene of Washington (226), and illustrates and describes a tooth from the Temblor (225-227, figs. 1-3).
- Kellogg, Remington
1936. A review of the Archaeoceti.
Carnegie Inst. Wash. Publ., No. 482: xv + 366. 87 figs. 37 pls. Dec. 14, 1936.
- Kellogg, Remington
1942. Tertiary, Quaternary, and Recent marine mammals of South America and the West Indies.
Proc. 8th Amer. Sci. Congr., 3: 445-473.
-See also Kellogg (1943).
- x Kellogg, Remington
1943. Past and present status of the marine mammals of South America and the West Indies.
Ann. Rept. Smithsonian Inst., 1942 (Publ. no. 3705): 299-316.
-Abridged version of Kellogg (1942). Brief paragraph on Eocene and Oligocene sirs. in the West Indies (299).
- x Kellogg, Remington
1959. Description of the skull of *Pomatodelphis inaequalis* Allen.
Bull. Mus. Compar. Zool. Harvard Coll., 121(1): 3-26. 1 fig. 6 pls. May 1959.
-Mentions "manatee" (i.e., *Metaxytherium floridanum*) bones found in the Homeland Mine, Polk County, Florida (m6).
- x Kellogg, Remington
1966. Fossil marine mammals from the Miocene Calvert Formation of Maryland and Virginia. 3. New species of extinct Miocene Sirenia.
U.S. Natl. Mus. Bull., 247(3): 65-98. Figs. 32-38. Pls. 33-43.
-Reviews the Miocene Sirenia of the U.S. Atlantic coast; describes *Metaxytherium calvertense*, n.sp. (71-90), from the Middle Miocene of Maryland; discusses *Felsinotherium alleni* (new combination; 91) and *M. manigaulti* from the ?Miocene of South Carolina (91-92); describes *M. ortegense*, n.sp. (93-94), from the ?Upper Miocene of Colombia. Gives useful reviews of the usage of the names *Halianassa*, *Metaxytherium*, *Felsinotherium*, and many specific names. Considers *Hemicaulodon* Cope a sir., though it is actually a walrus (see C. E. Ray, 1975). Fixes the type species of *Metaxytherium* by restriction as *M. medium* (= *M. cuvieri*) (70), and inadvertently designates a lectotype for *Halianassa studeri* (69, pl. 43; see Domning, 1987b).
- x Kellogg, Remington; & Whitmore, Frank Clifford, Jr.
1957. Mammals. In: H.S. Ladd (ed.), *Treatise on marine ecology and paleoecology*. Vol. 2. *Paleoecology* (x + 1077 pp.).
Mem. Geol. Soc. Amer., 67(2): 1021-1024.
-Discusses the paleoenvironments of several Miocene sirs.: *Miosiren* (Antwerp Basin, Belgium), oceanic coastline (1021); *Metaxytherium* (Calvert Fm., Maryland), large estuary; *Hesperosiren* (Hawthorn Fm., Florida), environment similar to present Atlantic coast of Florida (1022).
Vol. 1 (*Ecology*, J.W. Hedgpeth, ed.; *Mem.*, 67(1): viii + 1296) of this treatise contains an article on "Marine Mammals" by the same authors (1223-1226), with a brief paragraph summarizing Recent sir. distribution on p. 1223. This is not indexed here.
- x Kellogg, William N.
1955. Sounds of sea animals [PHONOGRAPH RE-

CORD].

New York, Folkways Records & Services, Inc., Album No. FPX 125.

—Includes sounds of *T. manatus* recorded in Florida.

x Kenchington, Richard A.

1972. Observations on the digestive system of the dugong, *Dugong dugon* (Erleben). *Jour. Mamm.*, 53(4): 884–887. 1 tab. 7 figs. Nov. 30, 1972.

—Describes the gross anatomy and histology of stomachs and intestines of animals caught in northern Queensland shark nets; comments on secretions and muscular contractions of the gut, and the pH of its contents. “Sea grasses” were found even in the stomach of a “new born” calf.

x Kenchington, Richard A.

1985. Dugong hunting in the Great Barrier Reef Marine Park.

IUCN Bull. (Internatl. Union Conserv. Nature & Nat. Resources), 16(7–9): 89–90. 1 fig. Jul.–Sep. 1985.

—Reports on the regulation of traditional hunting in the Hope Vale Community, Queensland, Australia. According to Kenchington (*IUCN Bull.*, 17(1–3): 41, Jan.–Mar. 1986), authorship of this article should have been attributed to Claudia L. Baldwin.

x Kendall, Beryl

1985. Sea cows.

Swara (Mag. of the East Afr. Wildlife Soc.), 8(1): 32–33. 2 figs. Jan.–Feb. 1985.

—Pop. acc. of sirs., emphasizing East African dugongs.

x Kenny, R.

1967. The breathing pattern of the dugong.

Austral. Jour. Sci., 29(10): 372–373. 2 figs. Apr. 1967.

—Reports observations of a captive Australian dugong at Cairns Oceanarium. Its longest recorded dive lasted 8 min. 26 sec.; the average dive, 3 min. 1 sec. Forward progress was maintained during breathing, and a rhythmic pattern of breaths was noted.

Kent, Janet

1972. *The Solomon Islands*.

Newton Abbott, David & Charles; Harrisburg (Pennsylvania), Stackpole Books, 1–222. Illus.

—Dugongs in the Solomons said to be more numerous than whales; comments on superstitions of people of Malaita (22).

Kent, William Saville: SEE ALSO Welsby, T., 1967.

Kent, William Saville

1893. *The Great Barrier Reef of Australia; its products*

and potentialities.... Containing—an account, with copious coloured and photographic illustrations ... of the corals and coral reefs, pearl and pearl-shell, bêche-de-mer, other fishing industries, and the marine fauna of the Australian Great Barrier region.

London, W.H. Allen & Co., Ltd., xvii + 387. Illus.

—Repr. of 1893 ed.: Melbourne, John Currey, O’Neil, 1972. Ed. 2, London, W.H. Allen, 1900. Dugong fishery, 310, 327–330.

Kenyon, Karl W.: SEE Reeves et al., 1992; Simenstad et al., 1978.

xD Kermode, Francis

1917. Palaeontology.

Rept. Prov. Mus. Nat. Hist. (Victoria, Brit. Columbia), 1916: 42–43. Pl. 9.

—Reports a tooth of “*Desmostylus hesperus*” from Vancouver Is., B.C. (This tooth, BCPM 486, was later made the holotype of *Cornwallius sookensis*.) Includes comments on the tooth by Lawrence M. Lambe (42) and a photo of the type locality.

Kerr, Robert

1792. *The animal kingdom, or zoological system, of the celebrated Sir Charles Linnaeus. Class I. Mammalia....*

London, A. Strahan & T. Cadell; Edinburgh, W. Creech, xii + 644.

—“*Trichechus Dugon*,” 118–119; “*Trich. Manatus australis*,” 119–120; “*Trich. Manatus borealis*” (= *Hydrodamalis*), 120; “*Trich. Manatus Siren*” (= Steller’s “sea-ape”), 120.

Kesner, Michael: SEE Kaiser, H.E., 1974.

x Ketten, Darlene R.; Odell, Daniel Keith; & Domning, Daryl Paul

1992. Structure, function, and adaptation of the manatee ear. In: J. Thomas, R. Kastelein, & A. Supin (eds.), *Marine mammal sensory systems*.

New York, Plenum Press, 77–95. 2 tabs. 8 figs.

—Describes the anatomy and (using CT scans) location in the head of ear structures in Florida manatees. Calls attention to the possible role of the inflated zygomatic process in sound conduction. Concludes that the manatee has an essentially aquatic but non-acute, low-frequency ear with a relatively narrow range, poor sensitivity, and poor localization ability. Suggests that this could account for inability to avoid collisions with powerboats. Also notes hypertrophy of the chorda tympani, suggesting that taste is a very important sensory modality for manatees.

Khalil, M.B.; & Vogelsang, Enrique G.

1932. One [sic] some nematode parasites from South American animals.

Zentralbl. Bakteriolog. Parasitenk. Infektionskrankheiten und Hygiene. Abt. 1. Originale, 123: 477–485.

—Describes the nematode *Typhlophorus hagenbecki*, n.gen.n.sp., from a Caribbean *T. manatus* at Hagenbeck's Tierpark, Hamburg (see also Travassos & Vogelsang, 1931).

Khan, Majeed: SEE Thomas et al., 1985.

Khitrov, Sofron: SEE Golder, F.A., 1922; Pekarskiy, P.P., 1869.

D Khomenko, J.P.

1927. *Desmostylus* sp. iz tretichnykh plastov o. Sakhalina. (*Desmostylus* sp. des dépôts de l'île de Sakhalin.)

Izvest. Geol. Kom. (Leningrad), 46(3): 21–24. 1 pl.

—In Russian.

x D Khomenko, J.P.

1928a. Bemerkungen zu: E. Pfizenmayer, Ein Desmostylidenzahn von der neusibirischen Insel Kotelnji.

Centralbl. Min. Geol. Pal., Abt. B: Geol. Pal., 1928(9): 519–520.

—Proposes the new name *Neodesmostylus primigenius* (520) for the tooth described by Pfizenmayer (1927) from the Quaternary of Siberia. It is now regarded as a mammoth tooth.

D Khomenko, J.P.

1928b. Neue Ergebnisse über die Familie der Desmostyliidae.

Mém. Soc. Russe Min., (2)57(1): 140–147. 2 pls.

Kiely, John

1991. A million years in the making.

American Way, 24(3): 16, 18, 20, 22, 27. 3 figs. Feb. 1, 1991.

—Pop. acc. of Florida manatees.

Kigbu, E.E.: SEE Osakwe et al., 1988.

Kihira, Kenji: SEE Yoshii et al., 1989.

x Kilmer, Frank Hale

1965. A Miocene dugongid from Baja California, Mexico.

So. Calif. Acad. Sci. Bull., 64(2): 57–74. 2 figs. Apr.–Jun. 1965.

—Describes *Halianassa(?) allisoni*, n.sp., and compares it with numerous other sirs.

Kimura, Masaichi: SEE ALSO Furusawa & Kimura, 1982; Furusawa et al., 1993; Matsui et al., 1984; Shinohara et al., 1985; Takikawa Sea Cow Geological Investigation Group, 1984.

D Kimura, Masaichi

1977. Discovery of desmostylian molar from Rawan conglomerate sandstone member, Honbetu-cho, Nakagawa-gun, Hokkaido.

Earth Science (Chikyu Kagaku), 31(4): 167–170.

1 tab. Pl. 1. Maps. May 1977.

—In Japanese.

D Kimura, Masaichi

1978. *Desmostylus* teeth from the Hatsune mine, Setanagun, Hokkaido.

Jour. Geol. Soc. Japan, 84(9): 549–550. Sep. 1978.

—In Japanese.

D Kimura, Masaichi

1981. [On the fifth desmostylian specimen from Kamitokushibetsu, Utanobori-cho, Hokkaido, and its relationship with other desmostylians from Hokkaido.]

Jour. Fossil Research, 13: 15–19.

—In Japanese.

D Kimura, Masaichi

1982a. A *Desmostylus* molar tooth in the fossil collection of the Hakodate City Museum, Hokkaido.

Earth Science (Chikyu Kagaku), 36(6): 351–352. 1 pl. Nov. 1982.

—In Japanese.

Kimura, Masaichi

1982b. Sirenia.

Nature and Animals, 12(6): 2–6. 1 tab. 5 figs.

—In Japanese.

D Kimura, Masaichi

1985. On *Desmostylus* from Hobetsu-cho, Hokkaido (Part 2).

Hobetsu Town Mus. Research Rept., No. 2: 51–62. 3 tabs. 10 figs. 7 pls. Mar. 1985.

—In Japanese; Engl. summ. Part 1 is Kimura & Akamatsu (1984).

D Kimura, Masaichi; & Akamatsu, Morio

1984. On *Desmostylus* from Hobetsu-cho, Hokkaido (Part 1).

Hobetsu Town Mus. Research Rept., No. 1: 11–23. 5 tabs. 6 figs. 6 pls. Mar. 1984.

—In Japanese. Part 2 is Kimura (1985).

D Kimura, Masaichi; Akiyama, Masahiko; & Kumano, Sumio

1978. Additional specimens of *Desmostylus* molars from Kamitokushibetsu, Utanobori-cho, Hokkaido.

Jour. Geol. Soc. Japan, 84(10): 621–623. Oct. 1978.

—In Japanese.

D Kimura, Masaichi; Kokubo, Hidehiko; Kumano, Sumio; & Matsui, Masaru

1987. Desmostylian molar found from Shimukappu Village, Yufutsu County, Hokkaido.

Earth Science (Chikyu Kagaku), 41(1): 61–64. 1 tab. 3 figs. 1 pl. Jan. 1987.

—In Japanese. Describes a tooth of *Desmostylus*.

D Kimura, Masaichi; & Oguri, Hiroshi

1985. Largest desmostylian humerus and patella.

Jour. Fossil Research, 18: 11–20. 1 tab. 8 figs. 3 pls.

—In Japanese; Engl. summ.

D Kimura, Masaichi; Sato, Yoshio; & Goto, Hidehiko

1978. A molar of *Desmostylus* discovered at the Goryu section of Urahoru-cho, Tokachi-gun, Hokkaido. *Earth Science (Chikyu Kagaku)*, 32(4): 205–207. Illus. Jul. 1978.

—In Japanese.

D Kimura, Masaichi; & Takaku, Kouichi

1979. A *Desmostylus* molar from the upper course of the Sankebetsu-kawa, Haboro-cho, Tomamae-gun, Hokkaido.

Earth Science (Chikyu Kagaku), 33(4): 233–235. Jul. 1979.

—In Japanese.

x Kimura, Masaichi; Tonosaki, Tokuji; Akamatsu, Morio; Kitagawa, Yoshio; Yoshida, Mitsuo; & Kamei, Tadao

1983. Occurrences of Early–Middle Pleistocene mammalian fossils from the Nopporo Hills in the Ishikari Lowland, Hokkaido.

Earth Science (Chikyu Kagaku), 37(3): 162–177. 2 tabs. 9 figs. 4 pls. May 1983.

—In Japanese; Engl. summ. Reports a partial skeleton of *Hydrodamalis* sp. from the Shimonoporo Formation (162, 165, 167, 169, 174–175, pl. 4).

King, Judith E.: SEE Harrison & King, 1965.

x Kingdon, Jonathan

1971. *East African mammals: an atlas of evolution in Africa. Vol. 1.*

London & New York, Academic Press, x + 446. Illus.

—Gen. acc. (with a number of erroneous statements) of dugongs and their occurrence and natural history in East Africa, with an interesting series of the author's sketches of dugongs from life and from photos (388–399, 431–432). These include drawings of the superficial musculature—the first ever published, but unfortunately not described or labeled. One of them is a figure of the skull with a transparent overlay of the facial muscles.

x Kingdon, Jonathan

1991. *Arabian mammals: a natural history.*

London, Academic Press, vii + 279. Illus.

—Previously publ. in 1990 by the Al Areen Wildlife Park and Reserve, Bahrain? Pop. acc. of dugongs, with no new data and no significant discussion of their occurrence in Arabian waters (112–114, 2 figs.).

Kingsley, J.S.

1925. *The vertebrate skeleton from the developmental standpoint.*

Philadelphia, vi + 337. 324 figs.

—Sirs., 218, 300.

Kingsley, John Sterling

1888. Order VI.—Sirenia. In: J.S. Kingsley (ed.), *The Riverside Natural History.*

Boston & New York, Houghton, Mifflin & Co., Vol. 5: 210–214. Figs. 112–114.

—Also an 1884 ed.?

x Kingston, W.H.G.

1872. *On the banks of the Amazon; or, A boy's journal of his adventures in the tropical wilds of South America.*

London, T. Nelson & Sons, 1–512.

—Exciting account of a manatee caught by a jaguar (184–190); of doubtful authenticity, however, considering that the illustration on p. 185 is directly pirated from Marcoy (1869)!

x Kinnaird, Margaret F.

1983a. Aerial census of manatees and boats over the lower St. Johns River and the Intracoastal Waterway in northeastern Florida.

Site-Specific Reduction of Manatee Boat/Barge Mortality Research Report (Florida Cooperative Fish & Wildlife Research Unit, Univ. of Florida, Gainesville), No. 2: iv + 56. 10 tabs. 20 figs. Oct. 1983.

—Presents and analyzes data from one full year on manatee abundance, distribution, movements, behavioral patterns, adult/calf ratios, effects of temperature and boat traffic, and population trends. Also analyzes in detail the distribution of boat traffic and its composition in terms of boat sizes. Concludes that the manatee population in northeastern Florida is likely to be unstable and declining, and makes recommendations for management.

x Kinnaird, Margaret F.

1983b. Evaluation of potential management strategies for the reduction of boat-related mortality of manatees.

Site-Specific Reduction of Manatee Boat/Barge Mortality Research Report (Florida Cooperative Fish & Wildlife Research Unit, Univ. of Florida, Gainesville), No. 3: ii + 43. 2 tabs. Oct. 1983.

—Discusses pros and cons of methods of physical protection of manatees (propeller guards, artificial barriers, acoustic repellents, deeper dredging of channels) and passive detection and avoidance (boat speed zones, routing of boat traffic, marina siting policies, sonar imagery, public education). Describes some inconclusive experiments to test manatee response to high-intensity sounds (3–4) and the effectiveness of manatee detection by sonar (9–12). Recommends a combination of

strategies, including public education, wise marina-siting policies, and boat speed zones, plus further research on propeller guards. Includes an appendix (20–43) illustrating numerous designs for propeller guards and related devices.

x Kinnaird, Margaret F.

1983c. Site-specific analysis of factors potentially influencing manatee boat/barge mortality.

Site-Specific Reduction of Manatee Boat/Barge Mortality Research Report (Florida Cooperative Fish & Wildlife Research Unit, Univ. of Florida, Gainesville), No. 4: iv + 41. 15 tabs. 4 figs. Oct. 1983.

—Analyzes patterns of boat-related manatee deaths in relation to various measures of manatee and boat activity in Brevard County and the lower St. Johns River, Florida. In Brevard County, manatees seem to be hit more frequently while feeding than while engaged in other activities, and are killed by small boats as often as by large ones. In the lower St. Johns River, manatees are killed mainly by large vessels and barges, especially during the warmer months, and a greater proportion of adults was killed than in Brevard County. Data from scar patterns show no tendency for injured animals to avoid further boat encounters, but other evidence suggests that manatees do learn traffic patterns. Concludes with management and research recommendations for reducing boat mortality.

Kinnaird, Margaret F.

1985. Aerial census of manatees in northeastern Florida. *Biol. Conserv.*, 32(1): 59–79. 4 tabs. 5 figs.

x Kinnaird, Margaret F.

1986. The manatee: South Carolina's summertime visitor.

South Carolina Wildlife, 33(2): 6–10. 5 figs. Mar.–Apr. 1986.

—Pop. acc. of Florida manatees and their occasional occurrence in South Carolina.

x Kinnaird, Margaret F.; & Valade, James

1983. Manatee use of two power plant effluents on the St. Johns River in Jacksonville, Florida.

Site-Specific Reduction of Manatee Boat/Barge Mortality Research Report (Florida Cooperative Fish & Wildlife Research Unit, Univ. of Florida, Gainesville), No. 1: iii + 63. 5 tabs. 6 figs. Oct. 1983.

—Documents manatee use of the effluents in relation to air and water temperatures, and describes local and long-distance manatee movements and site fidelity as shown by recognition of individuals by scars. Concludes that the Jacksonville plants are used only by small numbers of

transient manatees, mainly at the beginning and end of winter, but that these plants may nonetheless be important to the manatee population on a regional scale. Makes recommendations for research and management actions at the Jacksonville plants. Includes an appendix showing the scar patterns of 36 individually identified manatees.

x Kinzer, J.

1966. Beobachtungen über das Verhalten des Lamantin *Trichechus senegalensis* (Link, 1795) in Gefangenschaft.

Zs. Säugetierk., 31(1): 47–52. 1 tab. 3 figs.

—Abstr.: L. Goettert (1966). Gives measurements of six individuals from Ebrié Lagoon, Ivory Coast, and observations on feeding, locomotion, and breathing of one kept in captivity at Abidjan.

Kipling, Rudyard

1894. *The jungle book*.

London, Macmillan & Co., vi + 212. Illus.

—Many later eds. Includes the short story “The White Seal,” with its fanciful description of Steller's sea cow and other marine creatures of the North Pacific—as memorably entertaining as it is sirenologically inaccurate.

Kirby, Tim

1986. Making up with the mermaids.

BBC Wildlife, 4(8): 391–395. 7 figs. Aug. 1986.

Kirk, G.

1967. *Theriophylaxe. Erhaltung, Bewahrung und Schutz der Säugetiere*.

Hohenbüchen, publ. by the author, 1–249.

Kirk, G.

1968. *Säugetierschutz*.

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1764. *The history of Kamtschatka, and the Kurilski Islands, with the countries adjacent.... Published at Petersbourg in the Russian language, ... and translated into English by James Grieve....*

Glocester, T. Jefferys, vii + 280. 5 pls. 2 maps. –Allen 292. A greatly abridged transl. of the original Russian ed. (St. Petersburg, Akad. Nauk, 2 vols., 1755). This version was in turn translated into German (Lemgo, J.T. Koehler, 1766) and French (Lyon, Benoit Duplain, 2 vols., 1767; sea cow, 1: 313–325; Allen 302). For a complete French transl. of the original ed., see Krasheninnikof (1768). A second Russian ed. was published in 1786. The first Russian ed. has been republished (Moscow & Leningrad, 1949; sea cow, 288). *Hydrodamalis*, 132–136.

Krasheninnikof, Stepan Petrovitch

1768. *Voyage en Sibérie, contenant la description du Kamtchatka, ou l'on trouve I. Les moeurs & les coutumes des habitants du Kamtchatka. II. La géographie du Kamtchatka, & des pays circonvoisins. III. Les avantages & les désavantages du Kamtchatka. IV. La réduction du Kamtchatka par les Russes, les révoltes arrivées en différents temps, & l'état actuel des forts de la Russie dans*

ce pays.... Tome Seconde.

Paris, Debure, pere, xvi + 627. 17 pls. 6 maps.

–Allen 305. This work forms Vol. 2 of the *Voyage en Sibérie* of l'Abbé Jean Chappe d'Auteroche (Paris, Debure, 1768). It is translated direct (and unabridged?) from the Russian original, and is greatly superior to Grieve's abridged translation (Krasheninnikof, 1764). Another French ed. (Amsterdam, Marc Michel Rey, 2 vols., 1770; sea cow, 2: 197–207) said to be a direct transl. from the Russian is merely a reprint of this one, with crude copies of the plates. *Hydrodamalis*, 446–454.

Krause, Ernst: SEE Lepsius, G.R., 1882.

Krause, W.J.: SEE Reynolds & Krause, 1982.

Krauss, Christian Ferdinand Friedrich

1858a. Beiträge zur Osteologie des surinamischen Manatus.

Müller's Arch. Anat., 1858: 390–425.

Krauss, Christian Ferdinand Friedrich

1858b. Beiträge zur Kenntnis des Schädel-Baues von *Halitherium*.

Neues Jahrb. Min. Geogn. Geol. Pet., 1858: 519–531. Pl. 20.

Krauss, Christian Ferdinand Friedrich

1859. Ueber die Deutung der Schädelknochen der fossilen Sirenen.

Verh. Ges. Deutsch. Naturf. Ärzte, 34: 63. –Publ. 1858?

Krauss, Christian Ferdinand Friedrich

1862a. Beiträge zur Osteologie des surinamischen Manatus.

Arch. Anat. Physiol. Wiss. Med., 1862: 415–427. Pl. 13.

Krauss, Christian Ferdinand Friedrich

1862b. Der Schädel des *Halitherium schinzi* Kaup.

Neues Jahrb. Min. Geogn. Geol. Pet., 1862: 385–415. Pls. 6–7.

Krauss, Christian Ferdinand Friedrich

1870. Beiträge zur Osteologie von *Halicore*.

Arch. Anat. Physiol. Wiss. Med., 1870: 525–614. –Abstr.: *Jour. Anat. Physiol.*, 5: 384?

Krauss, Christian Ferdinand Friedrich

1872. Die Beckenknochen des surinamischen Manatus.

Arch. Anat. Physiol. Wiss. Med., 1872: 257–292. Pls. 9–10.

Kreckman, Todd A.: SEE Patton et al., 1987.

x Kretzoi, Miklós

1941. *Sirenavus hungaricus* n.g., n.sp., ein neuer Prorastomide aus dem Mitteleozän (Lutetium) von Felsőgalla in Ungarn.

Ann. Hist.-Nat. Mus. Natl. Hungarici (Min. Geol. Pal.), 34: 146–156. 1 fig. 1 pl.

–Hungarian summ. Describes *S. hungaricus* (147), proposes the new names *Masrisiren Abeli*

(152) and *Halysiren* (153) together with several new names for higher taxa, and proposes a general classification for the Sirenia.

x Kretzoi, Miklós

1951. Új sziréna-típus a Magyar Miocénből. (Neuer Sirenen-Typus aus dem ungarischen Miozän.) *Földt. Közlöny (Bull. Hung. Geol. Soc.)*, 81(10–12): 438–441. Oct.–Dec. 1951?

–Text in Hungarian and German. Describes *Haplosiren legányii*, n.gen.n.sp., on the basis of two lower molars from the Miocene (Tortonian) of Hungary, and compares it with other sirs., concluding that it lies between *Metaxytherium* and *Felsinotherium*.

x Kretzoi, Miklós

1953. A legidősebb Magyar ősemős-lelet. (Le plus ancien vestige fossile de mammifère en Hongrie.) *Földt. Közlöny (Bull. Hung. Geol. Soc.)*, 83(7–9): 273–277. Jun.–Sep. 1953.

–In Hungarian; Russian & French sums. Reports sir. vertebra and rib fragments from the Early Eocene (Ypresian) of Dudar, Hungary, and comments on the functional significance of pachyostosis in hydrostasis. These specimens are now considered Middle Eocene in age.

Kretzoi, Miklós

1955. A hazai emlősállatok fejlődéstörténete. [Evolution of mammals in our country.]

Útmutató A Társadalom- és Természettudományi Ismeretterjesztő Társulat Előadói Számára [Guide for Lecturers of the Public Association for Social Science & Science] (Budapest, A Társadalom- és Természettudományi Ismeretterjesztő Társulat [Public Association for Social Science & Science]) No. 29.

–Briefly discusses the fossil sirs. reported from Hungary (9–10).

Krishna Pillai, S.; Ambrose, J.D.; & Sivasdas, M.

1989. On an unusually large sea cow *Dugong dugon* landed at Mandapam, Gulf of Mannar.

Indian Counc. Agric. Res., Mar. Fish. Inf. Serv. Tech. Ext. Ser., No. 96: 12, 16. Illus.

–Hindi summ.

Krumbiegel, Günter: SEE Fischer & Krumbiegel, 1982.

x Krumholz, Louis A.

1943. Notes on manatees in Florida waters.

Jour. Mamm., 24(2): 272–273. Jun. 8, 1943.

–Presents records of manatees killed by freezes, and observations of five manatees in the Gulf of Mexico off Sanibel Island.

Krupp, Friedhelm

1991. Die Fauna des Persisch/Arabischen Golfes und seiner Küsten.

Natur und Museum, 121(4): 97–110. 16 figs. Apr. 1, 1991.

–Brief account of the dugong population in the Gulf (103–104).

Krushinskaya, N.L.; & Lisitsyna, T. Yu.

1983. [Behavior of marine mammals.]

Moscow, Nauka, 1–334. Illus.

–In Russian.

Kubary, J.S.

1895. *Ethnographische Beiträge zur Kenntnis des Karolinen Archipels.*

Leiden, P.W.M. Trap.

Kükenthal, Willy

1891a. Über die Anpassung von Säugethieren an das Leben im Wasser.

Zool. Jahrb. (Abt. Syst. Geog. Biol. Tiere), 5: 373–399.

Kükenthal, Willy

1891b. On the adaptation of mammals to aquatic life.

Ann. Mag. Nat. Hist., (6)7: 153–179.

–Transl. of Kükenthal (1891a)?

x Kükenthal, Willy

1896. Zur Entwicklungsgeschichte des Gebisses von *Manatus*.

Anat. Anz., 12(22): 513–526. 10 figs. Nov. 26, 1896.

–Describes the dentition of a 6.85-cm fetus of *Manatus latirostris* based on serial sections. The tooth formula is interpreted to be DI 3/3 DC 0/1 DP 0/3 + 3/3 deciduous “Backzähne.” Presents evidence for the existence of a “prelacteal” dentition and for the compound origin of teeth.

Kükenthal, Willy

1897a. Vergleichend-anatomische und entwicklungsgeschichtliche Untersuchungen an Sirenen. In: R.W. Semon (ed.), *Zoologische Forschungsreisen in Australien und dem Malayischen Archipel*, Vol. 4, Part 1.

Denkschr. Med.-natw. Ges. Jena, 7: 1–75. 47 figs. 5 pls.

–See also part 10: 68 of Semon’s *Zool. Forsch.*?

x Kükenthal, Willy

1897b. Die Arten der Gattung *Manatus*.

Zool. Anz., 20(523): 38–40. Feb. 1, 1897.

–Gives diagnoses (based largely on external characters) of *Manatus latirostris* Harlan, *M. senegalensis* Desmarest (39), *M. inunguis* Natterer, and *M. Köllikeri*, n.sp., from Surinam (40). No specimens are cited in connection with the latter species description.

Kükenthal, Willy

1897c. Über die Entwicklung der Sirenen.

Verh. Deutsch. Zool. Ges., 7: 140–147.

- Kükenthal, Willy
1897d. Zur Entwicklungsgeschichte der Sirenen.
Verh. Ges. Deutsch. Naturf. Ärzte, 68(2?)(1):
181–186.
- Kükenthal, Willy
1913. Säugetiere (Mammalia). In: *Handwörterbuch der
Naturwissenschaften*.
Jena, Gustav Fischer, Vol. 8: 633–695. 42 figs.
–Sirs., 683.
- Kükenthal, Willy
1914. Zur Entwicklung des Gebisses des Dugong, ein
Beitrag zur Lösung der Frage nach dem Ur-
sprunge der Säugetierzähne.
Anat. Anz., 45(23/24): 561–577. 11 figs. Mar. 13,
1914.
- Kuga, Naoyuki: SEE ALSO Goto & Kuga, 1984; Hasegawa
et al., 1988; Kamei et al., 1989.
- D Kuga, Naoyuki; Saegusa, Haruo; & Kamei, Tadao
1987. [*Paleoparadoxia* from Tsuyama, Okayama Pre-
fecture.] In: Y. Hasegawa (ed.), [*Study on fossil
marine mammals from Japan. (Subject of study)*
*Studies on biostratigraphy and paleontology of
Cenozoic marine mammals.*]
Japan, Ministry of Education, Aid for Scientific
Study, Synthetic Study A, Subject No. 61304010,
45–48. Mar. 1987.
–In Japanese.
- x Kuhn, Hans-Jürg
1965. A provisional check-list of the mammals of
Liberia.
Senckenbergiana Biologica, 46(5): 321–340. 2
maps. Nov. 30, 1965.
–Cites a record of *T. senegalensis* at Cape Mount
(Robertsport) (333). Also includes a short history
of mammal collecting in Liberia (321–323).
- Kulatunge, D.
1963. [Title?]
Loris, 9: 273.
–Dugongs hunted in Ceylon.
- Kumano, Sumio: SEE Akiyama & Kumano, 1973; Kimura,
Akiyama, & Kumano, 1978; Kimura et al., 1987.
- Kumar, Kishor: SEE ALSO Sahni & Kumar, 1980; Sahni et
al., 1980, 1983.
- x Kumar, Kishor
1991. *Anthracobune aijiensis* nov. sp. (Mammalia:
Proboscidea) from the Subathu Formation, Eo-
cene from NW Himalaya, India.
Geobios, 24(2): 221–239. 4 tabs. 4 figs. 3 pls.
–Reaffirms that *Ishatherium subathuensis* is a sir.
and not an anthracobunid, and that it is Ypresian
in age rather than Lutetian (234–237).
- Kuntze, Roman
1932. Benedictus Dybowski als Säugetierforscher.
Zs. Säugetierk., 7(1): 39–54. Pls. 16–17. Dec. 15,
1932.
–Describes Dybowski's work in the Komandorskies and his collection of *Hydrodamalis*
bones, 1879–1885 (48–50).
- Kuramoto, Taiju: SEE Yoshii et al., 1989.
- Kuroiwa, T.
1894. [The hunting ground of the dugong.]
Dobutsugaku Zasshi, 7(83): 395.
–In Japanese. Discusses dugongs in the Ryukyu
Islands and the Yaeyama Archipelago, and the
sale of dugong products in China.
- x Kuroki, S.; Schteingart, C.D.; Hagey, L.R.; Cohen, B.I.;
Mosbach, E.H.; Rossi, S.S.; Hofmann, A.F.; Matoba,
N.; Une, Mizuho; Hoshita, Takahiko; & Odell, Daniel
Keith
1988. Bile salts of the West Indian manatee, *Trichechus
manatus latirostris*: novel bile alcohol sulfates
and absence of bile acids.
Jour. Lipid Research, 29: 509–522. 6 tabs.
5 figs.
–Reports that salts in manatee gallbladder bile
comprise a mixture of bile alcohol sulfates,
including α -, β -, and ω -trichechol, described
here for the first time. Bile acids, previously
thought to be present in all mammals, were not
detected.
- Kurt, Fred: SEE ALSO Thenius et al., 1987.
- Kurt, Fred; & Wendt, Herbert
1972. Seekühe oder Sirenen. In: B. Grzimek (ed.),
Grzimeks Tierleben. Vol. 12: 525–535.
- x Kurtén, Bjorn; & Anderson, Elaine
1980. *Pleistocene mammals of North America*.
New York, Columbia Univ. Press, xvii + 442.
Illus.
–Chap. 16 (Order Sirenia; 340–342) summarizes
Pleistocene records of *Hydrodamalis gigas* and
Trichechus manatus.
- D Kutsuzawa, Arata; & Tan, K.
1954. Geology of desmostyloid locality in Akira Prefec-
ture.
Jour. Geol. Soc. Japan, 60(706): 305–306.
–In Japanese.
- Kuz'min, D.A.: SEE Galantsev & Kuz'min, 1989.

L

L'Écluse, Charles de: SEE Clusius, Carolus.

x La Barre, Antoine Joseph Lefebvre de

1666. *Description de la France equinoctiale, cy-devant appelée Guyanne, et par les Espagnols, El Dorado.*

Paris, Jean Ribov, 1–52. 1 map.

–States that manatee meat was traded to the French, English, and Dutch by Aracaret and Palicour Indians of the Guiana coasts (14), and that manatees were “rare” in that area (31).

La Caille, Nicolas Louis de

1763. *Journal historique du voyage fait au Cap de Bonne-Espérance, par feu m. l'Abbé de La Caille....*

Paris, Guillyn, xxxvii + 380. Illus. Map.

–Manatee, 229.

La Marre, L.H. de: SEE Duhamel du Monceau & La Marre, 1782.

Labat, Jean-Baptiste (“R.P. Labat”)

1722. *Nouveau voyage aux Isles de l'Amerique, contenant l'histoire naturelle de ces pays, l'origine, les moeurs, la religion & le gouvernement des habitans anciens et modernes. Les guerres & les evenemens singuliers qui y sont arrivez pendant le long sejour que l'auteur y a fait. Le commerce & les manufactures qui y sont établies, & les moyens de les augmenter. Avec une description exacte & curieuse de toutes ces isles. Ouvrage enrichi de plus de cent cartes, plans, & figures en tailles-douces.*

Paris, Pierre-François Giffart (6 vols.). Illus.

–Allen 182. 1742 ed., Paris, Ch. J.B. Delespine, 8 vols. (Allen 221). Manatee, 2: 200–207, pl. facing p. 200 (1742 ed.: 2: 256–263, pl. facing p. 256). Allen says: “Very full original account of external characters and mode of capture, with an original figure—an adult clasping its young one to its breast. The figure, slightly altered, is given by Bellin, 1763, q.v.”

Labat, Jean-Baptiste

1728. *Nouvelle relation de l'Afrique occidentale: contenant une description exacte du Senegal & des païs situés entre le Cap-Blanc & la riviere de Serrelionne, jusqu'à plus de 300. lieuës en avant dans les terres. L'histoire naturelle de ces païs, les differentes nations qui y sont répanduës, leurs religions & leurs moeurs. Avec l'etat ancien et*

present des compagnies qui y font le commerce. Ouvrage enrichi de quantité de cartes, de plans, & de figures en taille-douce.

Paris, G. Cavelier (4 vols. in 2), Vol. 2: 1–375. Illus.

Lacépède, Bernard Germain Étienne, Comte de

1799. *Tableau des divisions, sous-divisions, ordres et genres des mammifères.*

Paris, Plassan, An VII [= 1799], 1–18.

–Includes *Manatus aequatorialis* (nomen nudum), *Dugong*, n.gen., and *Dugong indicus*, n.comb. (17).

Lacépède, Bernard Germain Étienne, Comte de

1801. Mémoire sur une nouvelle table méthodique des animaux à mammelles.

Mém. Inst. (Paris), 3: 469–502.

–Mentions *Dugong*, 501.

Lacépède, Bernard Germain Étienne, Comte de; & Daudin, F.M.

1802. *Tableaux des mammifères.* In: Buffon, *Histoire naturelle*, Didot ed., XIX, “Quadrupeds.,” 9: 254; 10: 251; 14: 194.

–Describes *Manatus minor*, n.sp., and *M. indicus*, n.comb., 14: 194.

Lack, Clem: SEE ALSO Cilento & Lack, 1959.

x Lack, Clem

1968. Dugong fishing in early Queensland.

Newsletter Roy. Austral. Hist. Soc., No. 75: 4–6. Nov. 1968.

–A brief but fairly detailed history of the Queensland dugong-oil industry.

Ladd, John

1964. Archeological investigations in the Parita and Santa Maria zones of Panama.

Bull. Bur. Amer. Ethnol., 193: xii + 291. 68 figs. 25 pls. 14 charts. 2 maps.

–Describes carved batons made of manatee bone from the El Hatillo site (150, pl. 1).

Ladds, P.W.: SEE Campbell & Ladds, 1981; Elliott et al., 1981.

Ladewig, G.

1934. Seekühe oder Sirenen.

Aquarium, 1934: 199.

Laerm, Joshua: SEE Roth & Laerm, 1980.

Laet, Johannes de

1625. *Nieuwe Wereldt ofte Beschrijvinghe van West-Indien, wit veelerhande Schriften ende Aen-*

teekeningen van verscheyden Natien by een versamelt.

Leiden, Isaack Elzevier, xxii + 526. Maps.

–Allen 57.

Laet, Johannes de

1633. *Novvs Orbis seu Descriptionis Indiae Occidentalis Libri XVIII...Novis tabulis geographicis et variis animantivm, plantarum fructuumque iconibus illustrati.*

Lugduni Batavorum [= Leiden], Elzevirios [= Elzevier], 1–104, 205–690. Illus.

–Allen 65: “Manati, p. 6, fig. The account occupies nearly a page; the figure is a copy from Clusius.” This ed. is said to be much improved over that of 1625. A French ed. (Leiden, Bonaventure & Abraham Elseviers, 1640: 1–632; Allen 69) likewise has the manatee material on p. 6. Whitehead (1977) lists other eds. in Portuguese (1912–1925) and Dutch (1931–1937).

x Lainson, R.; Naiff, R.D.; Best, Robin Christopher; & Shaw, J.J.

1983. *Eimeria trichechi* n. sp. from the Amazonian manatee, *Trichechus inunguis* (Mammalia: Sirenia).

Syst. Parasitol., 5(4): 287–289. 2 figs.

–Describes oocysts and sporocysts of this new coccidial protozoan from captive and wild manatees, the majority of which were found to be infected.

Laist, David W.: SEE Marine Mammal Commission.

Lal Mohan, R.S.: SEE ALSO Anonymous, 1993a; Nair et al., 1975; Nair & Lal Mohan, 1977.

x Lal Mohan, R.S.

1963. On the occurrence of *Dugong dugon* (Müller) in the Gulf of Cutch.

Jour. Mar. Biol. Assoc. India, 5(1): 152. Jun. 1963.

–Records two dugongs stranded in 1961 and one netted in 1962.

x Lal Mohan, R.S.

1980. Some observations on the sea cow, *Dugong dugon* from the Gulf of Mannar and Palk Bay during 1971–1975.

Jour. Mar. Biol. Assoc. India, 18(2): 391–397. 6 tabs. “Aug. 1976” (publ. Jun. 1, 1980).

–Abstr.: *Proc. Ind. Sci. Congr.*, 63(4): 109, 1976. Also exists as a 6-page reprint with different page-breaks. Analyzes body lengths, sex ratio, and seasonality of occurrence of 146 dugongs entangled in fishing nets. They were captured throughout the year but were scarcer during Apr.–Jul.; the overall sex ratio was about 1:1.

Lal Mohan, R.S.

1991. Research needs for the better management of

dolphins and dugongs of Indian coast.

Cent. Mar. Fish. Res. Inst. Bull., 44(3): 662–667. 4 figs. Feb. 1991.

Lal Mohan, R.S.

1993. Struggle for survival: the threatened dolphins and sea cows.

Frontline (Madras, India), Mar. 12, 1993: 80–81. 4 figs.

Lalana R., Rogelio: SEE Ortiz et al., 1992.

Lambe, Lawrence M.: SEE ALSO Kermodé, F., 1917.

D Lambe, Lawrence M.

1916. Report of the vertebrate paleontologist.

Summ. Rept. Geol. Surv. Canada, 1915: 193–198. –Desmostylia, 197.

Lamothe, F.: SEE Ackman & Lamothe, 1989.

xD LaMotte, Robert Smith

1935. An Upper Oligocene florule from Vancouver Island.

Carnegie Inst. Wash. Publ., No. 455: 49–56. 1 pl. Jul. 1935.

–Mentions teeth of *Desmostylus sookensis*, associated with a temperate-subtropical flora in the Sooke Formation (51–52).

Lamphear, Marjorie: SEE Delaney et al., 1986.

Lance, Cynthia: SEE Kaiser, H.E., 1974.

x Landa, Diego de

1941. Landa's Relación de las cosas de Yucatan. (A.M. Tozzer, ed.)

Papers Peabody Mus. Archaeol. Ethnol., 18: xiii + 394.

–De Landa's MS., dating from 1566, was first publ. in 1864; this is ed. 8. Includes a brief gen. acc. of “sea-cows” (misidentified by the editor as *T. m. latirostris*) being used for meat and fat in Yucatan (190–191). Gives an interesting description of harpooning of manatees, and claims (implausibly) that “bats are accustomed to prick them” in the snout, causing death from loss of blood!

x Lande, Russell

1978. Evolutionary mechanisms of limb loss in tetrapods.

Evolution, 32(1): 73–92. 4 figs. Mar. 24, 1978.

–Briefly summarizes evidence on the evolutionary rate of limb loss in sirs. (74).

Landsberger, B.

1934. Die Fauna des alten Mesopotamien nach der 14. Tafel der Serie HJAR-RA = ħubullu.

Abh. Sächs. Akad. Wiss., Philolog.-Hist. Kl., 42(6): xiii + 144.

–Mentions the occurrence of dugongs in the Persian Gulf, and states that “Ein archaisches Keilschriftzeichen der Schicht Uruk IV stellt einen Dugong dar” (71, 141).

- Landtman, Gunnar
1927. *The Kiwai Papuans of British New Guinea, a nature-born instance of Rousseau's ideal community*.
London, Macmillan & Co., Ltd., xxxix + 485.
Illus.
—Dugong hunting, 120–141.
- Landtman, Gunnar
1933. *Ethnographical collection from the Kiwai district of British New Guinea in the National Museum of Finland, Helsingfors (Helsinki). A descriptive survey of the material culture of the Kiwai people*.
Helsinki, Commission of the Antell Collection, 1–146. Illus.
—Text in Engl. and Finnish. Harpooning of dugongs, 26–28.
- Lange, Frederick W.: SEE ALSO Bradley et al., 1983.
- Lange, Frederick W.
1971. Marine resources: a viable subsistence alternative for the prehistoric Lowland Maya.
Amer. Anthropol., 73(3): 619–639. 1 tab. Jun. 1971.
—Manatee, 631.
- Langer, Peter
1988. *The mammalian herbivore stomach: comparative anatomy, function and evolution*.
Stuttgart & New York, Gustav Fischer, xvii + 557.
72 tabs. 246 figs.
- Langham, Nigel P.E.
1974. Dugongs in Malaysian waters.
Malayan Nature Jour., 28(1): 35. Sep. 1974.
- Langham, Nigel P.E.
1976. The need for marine parks and reserves in Malaysia.
Malayan Nature Jour., 29(4): 269–276. Jul. 1976.
—Dugong, 272.
- Langkavel, Bernhard
1896. Der Dugong.
Zool. Garten, 37: 337–342.
—Dugong calf supported on back of parent.
- Langkavel, Bernhard
1899. Ein kurzlebiger Zoologischer Garten.
Zool. Garten, 40: 161–162.
- xD Langston, Wann, Jr.
1953. The beast of San Pablo Dam.
Splashes (Oakland, Calif., East Bay Municipal Utility District), 20(9): 8–9. 2 figs. Sep. 1953.
—Describes the discovery of part of a supposed *Desmostylus* skeleton [which later proved to be cetacean] at the San Pablo Reservoir near Berkeley, California.
- Lankester, E. Ray
1905. *Extinct animals*.
London, xxii + 331. 280 figs.
—Rev.: *Knowledge* (n.s.), 2: 274?; *Geol. Mag.*, (5)2: 513–515, fig. 1?; *Nature* (London), 73: 6–7, figs. 1–2? *Sirs.*, 20, figs. 13–14.
- Lanyon, Janet; Limpus, Colin J.; & Marsh, Helene D.
1989. Dugongs and turtles: grazers in the seagrass system. In: A.W.D. Larkum, A.J. McComb, & S.A. Shepherd (eds.), *Biology of seagrasses: a treatise on the biology of seagrasses with special reference to the Australian region*.
New York, Elsevier Science Publ. Co., Inc. (885 pp.), 610–634. 1 tab. 5 figs.
- x Lapham, Lewis H.
1964. Can the manatee save Florida?
Saturday Evening Post, 237(25): 38–39. Jun. 27, 1964.
—Amusing pop. acc. of manatees and their use for water hyacinth control in Florida and Panama.
- Largen, M.J.: SEE Yalden et al., 1986.
- Larger, René
1913. La contre-évolution ou dégénérescence par l'hérédité pathologique cause naturelle de l'extinction des groupes animaux actuels et fossiles. Essai de paléopathologie générale comparée.
Bull. Mém. Soc. Anthropol., (6)4: 683–729.
—*Sirs.*, 718.
- Larger, René
1917. *Théorie de la contre-évolution ou dégénérescence par l'hérédité pathologique*.
Paris, F. Alcan, xiv + 405. Illus.
—Discusses giantism in *Halitherium* and other *sirs.*, 68–72.
- x Lartet, Édouard
1866. Note sur deux nouveaux siréniens fossiles des terrains tertiaires du bassin de la Garonne.
Bull. Soc. Géol. France, (2)23: 673–686. Pl. 13. Read Jun. 4, 1866.
—Abstr.: *Jour. Mag. Zool.* (Paris), 1: 341–343, 1872? Describes *Rytiodus Capgrandi*, n.gen.n.sp. [Aquitanian, Early Miocene], on the basis of two pairs of tusks and some skull and rib fragments, believing it to be allied to *Halitherium*. Also describes another (unnamed) form from a higher horizon on the basis of a mandible fragment (682–683, pl. 13). Reviews the *sirs.* of the Garonne Basin (683–684), noting that they occur in four successive beds.
- Las Casas, Bartolomé de: SEE ALSO Morison, S.E., 1942, 1963.
- Las Casas, Bartolomé de
1550. *Apologética historia sumaria*.
Madrid.
—MS., first publ. in 1909? Repr.: Mexico City, 1967.

Las Casas, Bartolomé de

1699. *An account of the first voyages and discoveries made by the Spaniards in America. Containing the most exact relation hitherto publish'd, of their unparallel'd cruelties on the Indians, in the destruction of above forty millions of people. With the propositions offer'd to the King of Spain, to prevent the further ruin of the West-Indies...*
London, D. Brown, 248 + 40.

—Apparently a transl. of a French ed. (Amsterdam, 1698). Based on works of Las Casas dated 1552–1553.

Latimer, George W.

1864. Letter offering to forward manatees for the Society's menagerie.
Proc. Zool. Soc. London, 1864(2): 167–168. Nov. 1864.

—Concerns two specimens captured at St. Johns, Puerto Rico. According to Antonio A. Mignucci Giannoni (unpubl. M.A. thesis, Univ. of Rhode Island, 1989), Latimer was Austrian Consul to Puerto Rico, and the manatees were also offered to Central Park in New York City but never arrived there. See also P.L. Sclater (1866).

Latreille, Pierre André

1800. Exposition méthodique des quadrupèdes, spécialement mentionnés dans cette édition de l'Histoire Naturelle de Buffon. In: Buffon & Sonnini (1800), *Histoire naturelle ...*, vol. 34 (q.v.).
Paris, F. Dufart, An VIII [= 1800] (324 pp.), 251–321.

—Allen 457. Reissued in 1802 with different pagination; see Buffon & Sonnini (1800). *Manatus*, 288.

x Latreille, Pierre André

1825. *Familles naturelles du Règne Animal, exposées succinctement et dans un ordre analytique, avec l'indication de leurs genres.*

Paris, J.-B. Baillière & Baudouin Frères, 1–570.
—Allen 661. Pp. 64–65: {"Onzième Ordre. Cétacés. *Cetacea*. Première Famille. Herbivores. *Herbivora*.

"Ils n'ont point d'évans. Les mamelles sont pectorales. Les dents sont terminées par une couronne plate. Les nageoires antérieures servent à la préhension. Les moustaches sont garnies de poils.

[65] "Les g. Lamantin (*Manate*), Dugong, Stellère."}

Lauckner, G.

1985. Diseases of Mammalia: Sirenia. In: O. Kinne (ed.), *Diseases of marine animals. Volume 4, Part 2. Introduction, Reptilia, Aves, Mammalia.*

Hamburg, Biol. Anstalt Helgoland (xiii, 543–884), 795–803. Illus.

Laughlin, William S.

1967. Human migration and permanent occupation in the Bering Sea area. In: D.M. Hopkins (ed.), *The Bering Land Bridge.*

Stanford Univ. Press, 409–450. 11 figs.

—Sirs., 444. See also D.M. Hopkins (1967) and V.B. Scheffer (1967).

x Laughlin, William S.

1985. Russian-American Bering Sea relations: research and reciprocity.

Amer. Anthropol., 87(4): 775–792. 1 tab. 6 figs. Dec. 1985.

—Mentions A. Hrdlička's attempts to collect sea cow bones on Bering Is. (m780); notes the importance of the distribution of *Hydrodamalis* for theories of colonization of the Aleutians (781); and mentions a skeleton in the Khabarovsk museum (m783).

Laughlin, William S.; & Harper, A.B.

1982. Demographic diversity, length of life and Aleut-Eskimo whaling.

Rept. Internatl. Whaling Comm., Special Issue, 4: 75–77.

Laurillard, C.L.

1846. *Metaxytherium.*

Dict. Univ. d'Hist. Nat., 8: 171–172.

Lavigne, D.M.: SEE Schmitz & Lavigne, 1984.

Lavocat, A.

1885. Rachis des vertébrés.

Mém. Acad. Sci. Toulouse, (8)7: 23–54.

—Sirs., 46.

Lawley, Roberto

1876. *Nuovi studi sopra ai pesci ed altri vertebrati fossili delle Colline Toscane.*

Florence, Arte della Stampa, 1–122. 5 pls.

—Abstr.: *Boll. Comm. Geol. Italy*, 8: 80–81, 1877?; *Jour. Zool.* (Paris), 6: 177–180, 1877? Sirs., 8, 105–106, 116.

x Lawley, Roberto

1877. Resti di *Felsinotherium Forestii* Cap. trovati presso Volterra.

Atti Soc. Toscana Sci. Nat., 3(2): 341–342. Read May 6, 1877.

—Records a tusk and two molars from near Volterra, Italy.

Lawlor, Timothy E.: SEE Jones & Lawlor, 1965.

Lawrence, Barbara: SEE Allen & Lawrence, 1936.

x Lawrence, James E.

1954. Nearest thing to a mermaid.

Nature Mag., 47(8): 401–404. 3 figs. Oct. 1954.

—Interesting pop. acc. of Florida manatees, includ-

- ing behavior, economic use, conservation, etc.
- Lawrie, M.E.
1970. *Myths and legends of Torres Strait, collected and translated by M. Lawrie*.
St. Lucia (Queensland), Univ. of Queensland Press, 1-372.
-Recounts dugong myths, hunting stories, and vernacular names.
- Laye, Camara
1956. *The radiance of the king*.
London, Collins, 1-319.
-Transl. from the French (*Le regard du roi*, Paris, Plon: 1-254, 1954) by James Kirkup. Novel; alludes to African manatees and a dream in which the protagonist imagines them as "fish-women" (245-254, 259-261).
- Layne, James N.: SEE ALSO Reynolds & Odell, 1991.
- x Layne, James N.
1965. Observations on marine mammals in Florida waters.
Bull. Florida St. Mus., Biol. Sci., 9(4): 131-181. 4 figs. May 19, 1965.
-Collection of reports (1957-1963) of manatees killed by cold, boat propellers, shooting, and perhaps red tide; sighting reports; and reports of seasonal migrations (166-168).
- x Lazcano-Barrero, Marco A.; & Packard, Jane M.
1989. The occurrence of manatees (*Trichechus manatus*) in Tamaulipas, Mexico.
Mar. Mamm. Sci., 5(2): 202-205. 1 fig. Apr. 1989.
-Reports manatee sightings and the collection of 5 ribs from a carcass found in the Rio Soto La Marina, constituting the westernmost record of the species and the first definitive record from the state of Tamaulipas.
- Le Cointe, Paul
1922. *L'Amazonie Brésilienne: Le pays—ses habitants: ses ressources: notes et statistiques jusqu'en 1920... Tome II*.
Paris, Augustin Challamel, 1-495. 66 figs. 1 map.
-Manatees and statistics on export of mixira, 302-304.
- Le Souëf, William Henry Dudley: SEE ALSO Lucas & Le Souëf, 1909.
- Le Souëf, William Henry Dudley
1907. *Wild life in Australia*.
Christchurch, Whitcombe & Tombs, xv + 439. 170 figs.
-Dugong, 246, 248.
- Le Souëf, Albert Sherbourne; & Burrell, Harry
1926. *The wild animals of Australasia, embracing the mammals of New Guinea & the nearer Pacific islands*.
London, G.G. Harrap & Co. Ltd., 1-388. 105 figs. -Sirs., 104.
- Leahy, Thomas M.
1979. The manatee—an endangered species.
Sea Grant 70's (Virginia Polytechnic Inst. & State Univ.), 9(3): 8-9. 2 figs. Mar. 1979.
-Brief account of manatee conservation efforts in Florida. Includes "Manatee habitats under study" (p. 9), a short report on a study of manatee behavior conducted by John Tiedemann.
- x Leakey, Louis S.B.
1958. Dugongs.
Afr. Wild Life, 12: 19-20. 1 fig. Mar. 1958.
-Brief gen. acc. of East African dugongs, chiefly remarkable for its insistence that they "mainly" inhabit fresh and brackish water, specifically "the lower reaches and estuaries of the large rivers like the Tana and the Sabaki." Also states that "small family groups" of dugongs defend particular stretches of rivers, and that females nurse calves while upright in the water. These data were evidently obtained from native informants.
- Lear, Richard J.: SEE Heinsohn et al., 1978.
- Leatherwood, J. Stephen: SEE ALSO Reeves et al., 1992.
- x Leatherwood, J. Stephen
1979. Aerial survey of the bottlenosed dolphin, *Tursiops truncatus*, and the West Indian manatee, *Trichechus manatus*, in the Indian and Banana Rivers, Florida.
Fish. Bull., 77(1): 47-59. 5 tabs. 7 figs.
-Reports 151 sightings of manatees (9.9%-13.2% of them calves) made in the course of a dolphin survey in August 1977. Also gives data on group sizes.
- Leatherwood, J. Stephen; Peters, C.B.; Santerre, R.; Santerre, M.; & Clarke, J.T.
1984. Observations of marine mammals in the Northern Indian Ocean Sanctuary, 1979-1983.
Rept. Internatl. Whaling Comm., 34: 509-520.
- x Leatherwood, J. Stephen; & Reeves, Randall R. (eds.)
1989. Marine mammal research and conservation in Sri Lanka, 1985-1986.
(Nairobi, Kenya), *United Nations Environment Programme, Marine Mammal Tech. Rept.*, No. 1: vi + 138. 17 tabs. 28 figs.
-"Ed. 2," 1991 (an unaltered reprint with a different cover). Rev.: H. Marsh, *Mar. Mamm. Sci.*, 7(2): 203-204, Apr. 30, 1991. Discusses the distribution and status of dugongs, and presents data on hunting, accidental netting, catch levels and trends, specimens in Sri Lankan museums, and the need for a dugong sanctuary (4-5, 7, 61, 64, 80, 82-91, 105, 129-132). Also appended are

the recommendations of, and lists of the papers presented at and participants in, the Symposium on Marine Mammals of the Indian Ocean, held at Colombo, Feb. 22–25, 1983 (119–127).

- x LeBaron, J. Francis
1880. The manatee, or sea cow.
Forest & Stream, 13(25): 1005–1006. Jan. 22, 1880.
–Account of Florida manatees and their live capture with nets; mentions occasional hunting with rifles, sale of skins and skeletons to museums, and dredging of bones from the sea bottom between Florida Cape and Cuba.
- x Leboucq, Hector
1889a. Über Nagelrudimente an der fötalen Flosse der Cetaceen und Sirenier.
Anat. Anz., 4(6): 190–192. 2 figs. Mar. 31, 1889.
–Abstr.: *Amer. Naturalist*, 23(274): 923? Reports observations on rudimentary nail-forming areas in a dugong fetus.
- Leboucq, Hector
1889b. Recherches sur la morphologie de la main chez les mammifères marins: pinnipèdes, siréniens, cétaqués.
Arch. Biol., 9: 571–648. Pls. 36–41.
–Sirs., 572, 574, 576, 607–608, 624–627, 638, 640, 643, pl. 39.
- x Leboucq, Hector
1896. Über Hyperphalangie bei den Säugetieren.
Verh. Anat. Ges., 10. Vers.: 174–176.
–Alludes to occasional hyperphalangy in sirs. (174).
- Leccese, Mike
1979. Florida establishes manatee refuges.
Bull. Field Mus. Nat. Hist., 50(8): 33–34. Illus.
- Leche, Wilhelm
1887. Mammalia. In: *Dr. H.G. Bronn's Klassen und Ordnungen des Thier-Reichs*.
Leipzig & Heidelberg, C. F. Winter'sche Verlagshandlung (1874–1900), 6(5) (1884–1887); 6(7) (1888–1900).
–See also C.G.A. Giebel (1883).
- Leche, Wilhelm
1921. Morphologisch-geographische Formenreihen bei den Säugethieren.
Acta Univ. Lund., (2)16(10): 1–76. 11 figs.
–Publ. 1919–1921? Sirs., 72.
- Lecointre, Comtesse Pierre: SEE Mayet & Lecointre, 1909.
- Lecointre, G.
1947. La Touraine.
Géol. Rég. de la France, 4: 1–250. 49 figs. 3 pls.
- Ledbetter, C.S.
1960. Amazing mammals of Blue Spring Run.
Florida Wildlife, 14(2): 22–24.
- Ledererr, G.
1937. Sirenen oder Seekühe.
Kosmos, 1937: 64.
- Ledru, André-Pierre; & Sonnini, Charles Nicolas Sigisbert
1810. *Voyage aux Iles de Ténériffe, la Trinité, Saint-Thomas, Sainte-Croix et Porto-Ricco, exécuté par ordre du Gouvernement Français, depuis le 30 Septembre 1796 jusqu'au 7 Juin 1798, sous la direction du Capitaine Baudin, pour faire des recherches et des collections relatives à l'histoire naturelle; contenant des observations sur le climat, le sol, la population, l'agriculture, les productions de ces îles, le caractère, les mœurs et le commerce de leurs habitants....*
Paris, Arthus Bertrand (2 vols.), Vol. 1: xlvii + 315; Vol. 2: 1–324. 1 map.
–Allen 515. *Manatus australis*, 1: 258 (by Ledru), 294–295 (by Sonnini).
- Lee, David S.: SEE ALSO Browne & Lee, 1977.
- Lee, David S.
1976. Mermaids in distress.
Wildlife in North Carolina, 40(7): 8–9, 27. 3 figs. Jul. 1976.
- Lee, David S.; & Socci, M.C.
1989. Potential effects of oil spills on seabirds and selected other oceanic vertebrates off the North Carolina coast.
Occas. Pap. North Carolina Biol. Surv., 1989–1: 1–64. Illus.
- Lee, H.
1878. The manatee.
Leisure Hour, 27: 619.
- x Lee, Ida
1925. *Early explorers in Australia*.
London, Methuen & Co. Ltd., xii + 651.
–Summarizes accounts of dugongs encountered in Australian waters by the expeditions of Dampier (19–21), Cunningham (482), and Flinders (520, 523).
- Leech, Thomas
1817. In: John Barnes, *A tour through the island of St. Helena....*
London, J.M. Richardson (xx + 239), 116–117.
- x Lefebvre, Lynn W.; & Kochman, Howard I.
1991. An evaluation of aerial survey replicate count methodology to determine trends in manatee abundance.
Wildl. Soc. Bull., 19: 298–309. 2 tabs. 4 figs.
–Analyzes winter survey data from Crystal and Homosassa rivers, Florida, 1985–1986. Concludes that unit-recount surveys (Packard et al., 1986) should not be used to develop a population index based on resightings of individuals, but can serve to improve survey designs and to obtain an

index with a measure of variation at specific aggregation sites. They could also be used in conjunction with a "variable effort recount" method, to standardize the latter and make the former method more flexible.

- x Lefebvre, Lynn W.; O'Shea, Thomas J.; Rathbun, Galen B.; & Best, Robin Christopher

1989. Distribution, status, and biogeography of the West Indian manatee. In: C.A. Woods (ed.), *Biogeography of the West Indies: past, present, and future*. Gainesville (Florida), Sandhill Crane Press (xvii + 878), 567–609. 12 figs.

–Reviews historical, distributional, and status information from all countries within the range of *T. manatus*, and discusses aspects of habitat that account for limits to the species' distribution.

- Lefebvre, Lynn W.; & Powell, James Arthur, Jr.

1990. Manatee grazing impacts on seagrasses in Hobe Sound and Jupiter Sound in southeast Florida during the winter of 1988–1989.

NTIS Document No. PB 90–271883, vi + 36. 6 tabs. 12 figs. Aug. 1990.

–Includes an appendix by Domning (34–36; see Domning, D.P., 1990a).

- Lefevre, D.

1911. Structure histologique des os de l'*Halitherium*. *C.R. Congr. Soc. Savantes Paris* (Lille, 1909), 38: 291–293.

–Correct publication date 1909?

- x Lefèvre, Théodore

1889. Note préliminaire sur les restes de siréniens recueillis en Belgique.

Zool. Anz., 12(304): 197–200. Apr. 1, 1889.

–Recognizes two forms from the Belgian Rupelian (Oligocene): *Metaxytherium Guettardi* and *Halitherium Schinzi*. States that one (presumably the former) is ancestral to *Halicore*, the other to *Manatus*. *Crassitherium* is also present and, if a valid taxon, would constitute a third member of the fauna, ancestral to *Rhytina*. *Manatherium* is considered of doubtful validity and more probably equivalent to *M. Guettardi*. The two Rupelian species definitely recognized are said to have complete epiphyses on the centra of all vertebrae.

- Leguat, François

1708. *A new voyage to the East-Indies by Francis Leguat and his companions. Containing their adventures in two desert islands, and an account of the most remarkable things in Maurice Island, Batavia, at the Cape of Good Hope, the island of St. Helena, and other places in their way to and from the desert isles.*

London, R. Bonwicke, W. Freeman, Tim. Good-

win, J. Walthoe, M. Wotton, S. Manship, F. Nicholson, B. Tooke, R. Parker, & R. Smith, xv + 248. Pls.

–Allen 164. This is a transl. of an earlier French ed. (London, David Mortier, 2 vols., 1708). Later eds.: ?1720; Hakluyt Soc. (P. Oliver, ed.), 1891. Lamentin, 67–70, pl. facing p. 67. See also G. Atkinson (1922), T. Mortensen (1933b, 1934b), and D.R. Stoddart (1972) concerning this work.

According to Allen, "The account of the Lamantin is one of the earliest descriptions of the African manatee, and is quoted by Buffon and other early naturalists. The figure of the Lamantin displays a pig-like tusk in the lower jaw. It is represented as holding its young one in its arms. 'The Lamentins, which other Nations call *Manati*, that is, *having Hands*, abound in the Sea about this Isle [Maurice], appearing often in numerous Troops....'" (67).

The illustration of a tusked "Lamentin" with a dolphin-like tail is doubtless intended to represent the dugong and not (as Allen supposed) the manatee.

- Leiblein, V.

1839. *Grundzüge einer methodischen Uebersicht des Thierreiches nach seinem Classen, Ordnungen, Familie'n und Gattungen, nebst Aufzählung ihrer Haupt-Repräsentanten. Ein Leitfaden beim zoologischen Studium.... Erstes Bändchen. Der Mensch und die Säugethiere.*

Würzburg, Stahel'schen Buchhandlung, 1–182.

–Allen 966. *Manatus americanus*, *M. Senegalensis*, *Halicore Dugong*, 165; *Rytina Stelleri*, 167. Between *Halicore* and *Rytina* is interpolated the extinct genus *Dinotherium*.

- x Leidy, Joseph

1854. The ancient fauna of Nebraska, or a description of remains of extinct Mammalia and Chelonia from the Mauvais Terres of Nebraska.

Smithson. Contrib. Knowledge, 6(7): 1–126. 24 pls.

–Mentions *Manatus* in a list of North American Pliocene fauna, based on R. Harlan (1825b, 1835) (m10).

- x Leidy, Joseph

1856a. Notices of remains of extinct Mammalia, discovered by Dr. F.V. Hayden, in Nebraska Territory. *Proc. Acad. Nat. Sci. Philadelphia*, 8: 88–90. Read Apr. 8, 1856.

–Describes *Ischyrotherium antiquus* (sic), n.gen.n.sp., a supposed sir. based on vertebrae and rib fragments from Nebraska (89). Later, Leidy (1869) decided these remains were reptilian.

- x Leidy, Joseph
1856b. Notice of some remains of extinct vertebrated animals.
Proc. Acad. Nat. Sci. Philadelphia, 8(5): 163–165. Sep. 1856.
–P. 165: {“7. *Manatus antiquus*, Leidy [n.sp.]. /The species is predicated on fragments of ribs found in the miocene deposits of New Jersey and Virginia, and on a fragment of a rib and an isolated molar tooth, discovered by Capt. Bowman, U.S.A., in the sands of Ashley river, South Carolina. The tooth apparently corresponds to the sixth or seventh upper molar of *M. latirostris*, Harlan, than which it is considerably larger. It has no anterior basal ridge, but from both of the inner lobes of the crown the summits are prolonged in a curved line to the middle of the outer lobes. The specimen measures in both diameters 9½ lines.”}
- Leidy, Joseph
1859–1860. Description of vertebrate fossils. In: F.S. Holmes, *Post-Pleiocene fossils of South-Carolina*, Parts 8–15.
Charleston, Russell & Jones (xiii + 122 + v), 99–122. Pls. 15–28.
–Sirs., 117, pl. 24. Parts 11–12, comprising pp. 115–118, were published in 1860 (see Ward & Blackwelder, *Smithson. Contrib. Paleobiol.*, 61: 134, 1987).
- x Leidy, Joseph
1869. The extinct mammalian fauna of Dakota and Nebraska, including an account of some allied forms from other localities, together with a synopsis of the mammalian remains of North America.
Jour. Acad. Nat. Sci. Philadelphia, (2)7: 23–472. 30 pls.
–Summ.: *Jour. Zool.*, 1: 187–191, 500–508, pls. 10–11, 2: 541–545, 1872? The synopsis includes the reported American species and occurrences of *Manatus* and *Prorastomus*, and also discusses Leidy’s taxon *Ischyrotherium*, which he now considers a reptile rather than a sir. (414). (Hay [1902] provisionally assigned *Ischyrotherium* to the Champsosauridae.)
- x Leidy, Joseph
1873. Contributions to the extinct vertebrate fauna of the western territories.
Rept. U.S. Geol. & Geogr. Surv. Terr. (= Hayden Survey), 1: [7]–358. 37 pls.
–Describes a tooth of *Manatus inornatus*, n.sp., from the Ashley River, South Carolina (336–337, pl. 37).
- x Leidy, Joseph
1876. [Fossils from Ashley River, South Carolina. Summary of presentation to the Academy of Natural Sciences of Philadelphia, May 9, 1876, in:] *Proceedings of societies. Amer. Naturalist*, 10(9): 570–576. Sep. 1876.
–P. 570: {“From among a collection of fossils from the Ashley phosphate beds [South Carolina], recently submitted to his [Leidy’s] inspection by Mr. J.M. Gliddon, of the Pacific Guano Company, the specimens were selected which were presented for the examination of the meeting. One of them is a well-preserved tooth of a Megatherium; another, a characteristic portion of the skull of a manatee; ...”} It is likely that these were the specimens that formed the subject of Leidy (1877), below.
- x Leidy, Joseph
1877. Description of vertebrate remains, chiefly from the phosphate beds of South Carolina.
Jour. Acad. Nat. Sci. Philadelphia, (2)8(3): 209–261. Pls. 30–34.
–Calls attention to the existence, in the collection of fossils from the Ashley phosphate beds belonging to the Pacific Guano Company, of skull and other bone fragments, which he refers to *Manatus antiquus* (211, 214).
- x Leidy, Joseph
1889. Description of vertebrate remains from Peace Creek, Florida.
Trans. Wagner Free Inst. of Science, 2: 19–31. Dec. 1889.
–P. 27: {“9. Fragments of ribs of a Manatee, *Manatus antiquus*.”} These specimens, apparently the first fossil sir. remains reported from the Bone Valley phosphate district, were referred to *Metaxytherium floridanum* by Domning (1988).
- x Leidy, Joseph
1891. Notices of Entozoa.
Proc. Acad. Nat. Sci. Philadelphia, 42(= (3)20)(3): 410–418. Oct.–Dec. 1890 (publ. Jan. 20, 1891).
–Reports *Amphistomum fabaceum* from the intestines and nasal passages of manatees (413–414).
- Leidy, Joseph
1892. [List of Vertebrata from the Pliocene of Florida.] In: *Correlation papers: Neocene. Bull. U.S. Geol. Surv.*, 84: 129–130.
- x Lemire, Michel
1968. Particularites de l’estomac du lamantin *Trichechus senegalensis* Link (Sireniens, Trichechides). *Mammalia*, 32(3): 475–520. 7 figs. pls. 25–28. Sep. 1968.
–Engl. summ. Compares the manatee stomach with those of the dugong and other mammals; discusses digestive processes and adaptation.

Lenz, Harald Othmar

1831. *Naturgeschichte der Säugethiere, nach Cuvier's Systeme bearbeitet.*

Gotha, Beckersche Buchhandlung, 1–324.

–Allen 765. Sires. and cetaceans, 294–306; lists 3 genera and 4 species of the former. Allen says “The notices of the species are very short; the references relate only to figures. The technical names are marked for accent and their etymology is given. Evidently prepared for use as a concise hand-book of Mammalogy.”

Lenz, Harald Othmar

1835. *Gemeinnützige Naturgeschichte.... Erster Band: Säugethiere.*

Gotha, Beckersche Buchhandlung, vi + 450. 8 pls.

–Allen 865. Under the Order Cetacea, Family Herbivora (= Sirenia), lists *Manatus australis*, *M. senegalensis* (427), *Halicore cetacea*, and *Rhytina Stelleri* (428).

Lépes, Marta M.: SEE Allen et al., 1976; Budiarsa et al., 1979.

Lepsius, Georg Richard

1882. *Halitherium Schinzi*, die fossile Sirene des Mainzer Beckens. Eine vergleichend-anatomische Studie.

Abh. Mittelrheinischen Geol. Ver. (Darmstadt), 1: vi + 200 + viii. 10 pls.

–Notice: *Zs. Deutsch. Geol. Ges.*, 32: 672–673, 1880? Rev.: Ernst Krause, *Kosmos*, 11(3): 234–240, Jun. 10, 1882. This monograph on the important Middle Oligocene dugongid from Germany is one of the finest and most thorough osteological studies of a sirenian ever published. In addition to a detailed osteological description of *H. schinzii*, it comprises a full review of the sir. fossil record, with detailed comparisons and diagnoses of all known fossil and Recent forms, and a discussion of the relationships of sires. among the Mammalia.

Lepthien, Emilie Utteg

1991. *Manatees.*

Chicago, Childrens Press, 1–48. Illus.

–Children's book on Florida manatees.

Léry, Jean de (= Lerijs, John)

1578. *Histoire d'un voyage fait en la terre du Bresil, autrement dit Amerique....*

La Rochelle (also Rouen?), Antoine Chuppin, 1–424.

–Engl. transl. in *Purchas his pilgrimes*, Vol. 16: 534. Another French ed., Paris, Alphonse Lemerre (2 vols.), 1880, with introduction and notes by Paul Gaffarel. This was apparently reprinted (Geneva, Droz, 1976) and translated into Portuguese (São Paulo, Martins Ed., 1941, and

Biblioteca Histórica Brasileira, vol. 7).

Gives a brief account of a possible manatee or, more likely, a pinniped encountered in the region of Rio de Janeiro (185–193); see also Whitehead (1977: 171), who also gives an Engl. transl.

Lesson, René-Primèvere

1827. *Manuel de mammalogie, ou histoire naturelle des mammifères.*

Paris, Roret, xv + 442. Atlas, 80 pls.

–Allen 699. Sires., treated as a “tribe” of the Order Cetae: *Manatus americanus*, *M. senegalensis*, *M. latirostris*, *Halicore dugong*, and *Stellerus borealis* (401–404). Allen calls this work “an indiscriminate compilation, useful mainly as giving a list of the species described up to this date.” The atlas (Allen 700) apparently contains no illustrations of sires.

Lesson, René-Primèvere

1828. *Histoire naturelle générale et particulière des mammifères et des oiseaux. Cétacés.*

Paris, Baudouin Frères, vii + 442. Pls.

–Dugong, 72–87.

Lesson, René-Primèvere

1829. Rytine ou Stellère. *Rytina*. In: *Dictionnaire classique d'histoire naturelle.*

Paris, Rey et Gravier & Baudouin Frères, Vol. 15 (Rua-S): 25–28. May 1829.

–Allen 729.

Lester, K.S.: SEE ALSO Boyde & Lester, 1967.

Lester, K.S.; & Boyde, A.

1967. Electron microscopy of predentinal surfaces. *Calcified Tissue Res.*, 1(1): 44–54.

Lesueur, Charles A.: SEE Dockery, D.T., III, 1982.

Leuckart, R.

1875. Bericht über die wissenschaftlichen Leistungen in der Naturgeschichte der niederen Thiere während der Jahre 1872–1875.

Arch. Naturgesch., 40(2): 401–505.

–Describes the trematode *Monostomum dujonis* from the eustachian tube of a dugong from the Philippines.

x Leung, Yuk-maan

1967. An illustrated key to the species of whale-lice (Amphipoda, Cyamidae), ectoparasites of Cetacea, with a guide to the literature.

Crustaceana, 12(3): 279–291. 5 figs. May 8, 1967.

–Reviews the history of *Sirencyamus rhytinae*, and regards it as a synonym of *Cyamus ovalis*, following Lütken (1873) (279–280, 287).

Leunis, Johannes; & Ludwig, Hubert

1883. *Synopsis der Thierkunde. Ein Handbuch für höhere Lehranstalten und für alle, welche sich wissenschaftlich mit der Naturgeschichte der Thiere beschäftigen wollen....* Ed. 3.

Hanover, Hahn (2 vols., 1883-1886), Vol. 1: xvi + 796. 641 figs.
-Sirs., 275.

x D Leutenegger, Madeleine

1982. Bibliographie der Sirenen (Trichechidae).
Zool. Garten (n.s.), 52(2): 81-105.
-Lists 785 titles alphabetically by author; no annotations or index. Covers the Sirenia and Desmostylia generally, not just the Trichechidae.

Levitsky, Katherine: SEE Caldwell et al., 1969.

Lévy-Bruhl, Lucien

1910. *Les fonctions mentales dans les sociétés inférieures*.
Paris, F. Alcan, 1-461.
-Various later eds. & transls. Sirs., ed. 2 (1912): 277 (quotes Guise, 1899).

x Lew, Andrew M.; Valas, Robert B.; Maloy, W. Lee; & Coligan, John E.

1986. A soluble class I molecule analogous to mouse Q10 in the horse and related species.
Immunogenetics, 23(5): 277-283. 1 tab. 7 figs.
-The molecule was not detected in serum from 9 Florida manatees (279-280).

Lewis, C.B.

1945. Mermaids and manatees. In: *Glimpses of Jamaican natural history*.
Kingston, Institute of Jamaica, 21-23.
-Ed. 2, 1949. Pop. acc. of manatees, reporting sightings near Portland Bight.

Lewis, G.E.: SEE Gard et al., 1972.

x Lewis, Jessica H.; & Wilson, John H.

1973. Variations in abilities of animal fibrinogens to clump staphylococci.
Thromb. Res., 3(4): 419-424.
-Abstr.: *Federation Proc.*, 32(3, pt. 1): 290? Reports that blood plasma samples from two *T. inunguis* in the Pittsburgh Zoo showed ability to clump; elephant plasma, however, did not (421-422).

x Lewis, Roy R., III; Carlton, Jeffrey M.; & Lombardo, Ralph

1984. Algal consumption by the manatee (*Trichechus manatus* L.) in Tampa Bay, Florida.
Florida Scientist, 47(3): 189-191.
-Report of 4 to 6 manatees observed in Jan. 1981 apparently feeding on green algae (*Ulva* sp.). Suggests that marine algae may be an important food source for manatees wintering at nearby warm-water refugia.

x Lewis, Thomas A.

1989. Slow creature caught in a fast world.
Natl. Wildlife, 28(1): 42-49. 7 figs. "Dec.-Jan. 1990."
-Pop. acc. of the threat to Florida manatees from

boat collisions, and of the rescue of an injured animal in Jan. 1989.

Leydig, Franz von

1857. *Lehrbuch der Histologie des Menschen und der Thiere*.
Frankfurt am Main, Meidinger Sohn & Co., xii + 551. 271 figs.
-Sirs., 87, 315-316.

Leydig, Franz von

1859. Über die äusseren Bedeckungen der Säugethiere.
Arch. Anat. Phys. Med., 1859: 677-747. Pls. 19-20.
-Sirs., 684, 698.

Liat, J.B.: SEE Jones et al., 1971.

Lidstone, William: SEE Brown & Lidstone, 1878.

Ligabue, G.: SEE Thomas et al., 1985.

Ligensa, Klaus: SEE Blessing et al., 1972.

Ligon, Sandra L. Husar: SEE ALSO Husar, Sandra L.

x Ligon, Sandra L. Husar

1976. A survey of dugongs (*Dugong dugon*) in Queensland.
Jour. Mamm., 57(3): 580-582. 1 tab. 1 fig. Aug. 27, 1976.
-Reports 629 dugongs seen in an aerial survey of 3540 km of coastline. Includes observations on behavior, aggregations, and possible migrations.

x Ligon, Sandra L. Husar

1982. Aerial survey of the dugong, *Dugong dugon*, in Kenya. In: *Mammals in the seas*, vol. 4.
Rome, Food & Agriculture Organization of the United Nations, 511-513.
-French & Spanish summs. Brief report on surveys flown in 1975, which sighted only 8 dugongs on the entire coast of Kenya.

Ligon, Sandra L. Husar

1983. *Trichechus manatus* (manatí, West Indian manatee). In: D.H. Janzen (ed.), *Costa Rican natural history*.
Chicago, Univ. Chicago Press (xi + 816), 498-500. Illus.

x Ligon, Sandra L. Husar; & Hudson, Brydget E.T.

1977. Aerial survey of the dugong *Dugong dugon* in Papua New Guinea.
Wildlife in Papua New Guinea, 77/17: 1-5. 4 figs.
-A survey of 750 miles of coastline and coral reef in four areas (Daru-Warrior Reef; southeastern Papuan coast; Lae area and northwestern coast of West New Britain; and northwestern coast of PNG) during April 1975 resulted in 186 sightings of dugongs.

x Lima, Daisy Costa

1971. Itacoatiara, Amazonas.
Inst. Brasil. Estatística, Coleção de Monogr., No. 497 (Ed. 2): 1-20.
-States that 20 tons of salted manatee meat, worth

CR\$14,000, was exported from Itacoatiara, Brazil in 1968 (7).

Lima, Fernando de Castro Pires de: SEE Pires de Lima, Fernando de Castro.

Lima, Francisco Fiuza: SEE Fiuza Lima, Francisco.

Lima, Murilo Rodolfo de

1989. *Fósseis do Brasil*.

São Paulo, T.A. Queiroz, Edit. Univ. São Paulo (Biblioteca de Ciências Naturais, vol. 14), 1–118. Illus.

–Classifies *Sirenotherium pirabense* as *Sirenia incertae sedis*.

Lima, Régis Pinto de: SEE Pinto de Lima, Régis

Limpus, Colin J.: SEE Lanyon et al., 1989; Marsh, Freeland et al., 1986.

Linares, Olga F.

1976. “Garden hunting” in the American tropics.

Human Ecol., 4(4): 331–349.

Linares, Olga F.

1980. Cultural inferences from organic remains. In: O.F. Linares & A.J. Ranere (eds.), *Adaptive radiations in prehistoric Panama*.

Monogr. Peabody Mus. Archaeol. Ethnol., 5: 146–150.

Lincoln, Frederick C.: SEE Beard et al., 1942.

Ling, John K.

1974. The integument of marine mammals. In: R.J. Harrison (ed.), *Functional anatomy of marine mammals*.

London, Academic Press, Vol. 2: 1–44. 1 tab. 5 figs.

–Sirs., 4, 6, 13, 16, 22–23, 35, 37–39.

Ling, John K.

1977. Vibrissae of marine mammals. In: R.J. Harrison (ed.), *Functional anatomy of marine mammals*.

New York, Academic Press, Vol. 3 (428 pp.), 387–415. 2 tabs. 12 figs.

–Sirs., 405–408.

Ling, John K.

1979. The status of endangered Australian marine mammals. In: M.J. Tyler (ed.), *The status of endangered Australasian wildlife. Proceedings of the Centenary Symposium of the Royal Zoological Society of South Australia, Adelaide, 21–23 September, 1978*.

Adelaide, Roy. Zool. Soc. South Australia (ix + 210), 67–74. 1 tab. 2 figs.

x Link, Heinrich Friedrich

1794. Ueber die natürlichen Ordnungen und Geschlechter der Säugthiere.

Mag. f. Thiergesch. Thieranat. u. Thierarztneykunde, 1(2): 33–41.

–Gives a brief characterization of only one sir. species, “*Trichechus Manatus* β . *borealis*” (=

Hydrodamalis gigas), which is placed in the order Belluae and said to be merely a variety of “*Trichechus Manatus* α ” (40–41).

Link, Heinrich Friedrich

1794–1795. *Beiträge zur Naturgeschichte*.

Rostock & Leipzig, Karl Christoph Stiller, 1(1): [iv] + 124, 1794; 1(2): 1–126, 1795.

–In the “Erstes Stück” (1794), discusses sirs. on pp. 67–68; in the “Zweytes Stück” (1795), on pp. 109–110.

Linnaeus, Carl: SEE ALSO Müller, P.L.S.; Turton, W.

Linnaeus, Carl

1748. *Systema naturae sistens regna tria naturae, in classes et ordines genera et species redacta tabulisque aenis illustrata... Secundum sextam Stockholmiensem emendatam & auctam editionem*.

Lipsiae [= Leipzig], Godofr. Kiesewetter, [1] + 2–224. Frontisp. 8 pls.

–Allen 245. A reprinting of the sixth edition. *Trichechus*, 39.

Linnaeus, Carl

1756. *Systema naturae sistens regna tria naturae, in classes et ordines genera et species redacta tabulisque aenis illustrata. Accedunt vocabula Gallica. Editio multa auctior & emendatior*.

Lugduni Batavorum [= Leiden], Theodor Haak, 1–227. 8 pls.

–Allen 273. *Trichechus manatus*, 39.

x Linnaeus, Carl

1758. *Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio decima, reformata*.

Holmiae [= Stockholm], Laurentii Salvii, [5] + 6–823 + [1].

–Facsimile ed.: London, Brit. Mus. (Nat. Hist.), 1956. The tenth edition and the official starting point for zoological nomenclature. Names and describes *Trichechus manatus*, n.gen.n.sp. (34). See also O. Thomas (1911).

Linnaeus, Carl

1766. *Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio duodecima, reformata*.

Holmiae [= Stockholm], Laurentii Salvii, [10] + 11–532.

–Allen 298. The twelfth edition and the last to appear during Linnaeus’ lifetime. For this reason it was long regarded as the most authoritative, in preference to the tenth ed. Because it includes the walrus in the genus *Trichechus*, the eventual result was that the latter name became attached to the

walrus instead of the manatee for the following century and a half. "*Trichecus Manatus*" (including both the manatee and the dugong), 49–50.

According to Allen, "In the Vindobonae reprint (1767), styled 'Editio decima tertia, ad Editionem duodecimam reformatam Holmiensem,' the pagination and matter relating to [the Sirenia] is the same as here." See also J.F. Gmelin (1788).

Linné, Carl von: SEE Linnaeus, Carl.

Linstow, Otto Friedrich Bernhard von

1878. *Compendium der Helminthologie. Ein Verzeichniss der bekannten Helminthen, die frei oder in thierischen Körpern leben, geordnet nach ihren Wohnthieren, unter Angabe der Organe, in denen sie gefunden sind, und mit Beifügung der Litteraturquellen.*

Hannover, Hahn'sche Buchhandlung, xxii + 382.
–Lists parasites of sirs., 58–59.

Linstow, Otto Friedrich Bernhard von

1889. *Compendium der Helminthologie. Nachtrag. Die Litteratur der Jahre 1878–89.*
Hanover, Hahn'sche Buchhandlung, 1–151.
–Lists parasites of sirs., 24.

Linstow, Otto Friedrich Bernhard von

1903. Entozoa des zoologischen Museums der Kaiserlichen Akademie der Wissenschaften zu St. Petersburg.
Ezhagodnik Zoologicheskogo Muzeia Imperatorskoi Akademii Nauk, 8: 265–294.
–Lists *Ascaris halicoris* from the intestine of a Red Sea dugong.

Linstow, Otto Friedrich Bernhard von

1904. Neue Helminthen.
Centralbl. Bakt. Parasitenkunde und Infektionskrankheiten, 37(1): 678–683. 11 figs.
–Describes *Opisthotrema pulmonale*, n.sp., from the lungs of a Torres Strait dugong (678–680).

x Linstow, Otto Friedrich Bernhard von

1905. *Ascaris halicoris* Baird.
Jour. Proc. Asiatic Soc. Bengal (n.s.), 1 [= *Jour.* 1(10)]: 258–260. Pl. 11. Dec. 1905.
–In German. Discusses the nomenclature and anatomy of the nematode *A. halicoris*, and mentions its occurrence in stomachs of dugongs from India, the Malay Peninsula, and the Red Sea (258).

Linstow, Otto Friedrich Bernhard von

1906. Neue und bekannte Helminthen.
Zool. Jahrb., Abt. Syst. Ökol. Geogr. Thiere, 24: 1–20.
–Records *Ascaris halicoris* from an Indian dugong.

Lioy, Paolo: SEE Capellini, G., 1865.

x Lipkin, Yaacov

1976. Food of the Red Sea *Dugong* (Mammalia: Sirenia) from Sinai.
Israel Jour. Zool., 24: 81–98. 6 tabs. 1 fig. Jun. 1976.

–Analyzes the stomach and intestinal contents of 6 dugongs from the northern Red Sea. Nearly all the contents were seagrasses, with some algal and animal material, probably ingested casually. Discusses the dugong's feeding habits and possible movements; concludes that dugongs eat whatever is available, but prefer delicate seagrasses.

Lipps, Jere H.: SEE Mitchell & Lipps, 1964, 1965.

Lisboa, Cristóvão de: SEE Walter, J., 1967.

Lisitsyna, T. Yu.: SEE Krushinskaya & Lisitsyna, 1983.

x Little, E.C.S.

1966. The invasion of man-made lakes by plants. In: R.H. Lowe-McConnell (ed.), *Man-made lakes* (Proceedings of a symposium held at the Royal Geographical Society, London, Sep. 30–Oct. 1, 1965).

Symp. Inst. Biol., No. 15 (xiii + 218): 75–86.
–Gives a pessimistic view of the manatee's potential use for weed control (82). Includes a comment by G.C.L. Bertram on the usefulness of manatees and the proposed use of dugongs for fresh-water weed control in Australia (86).

x Liversseege, J.F.

1904. Cod-liver oil and other fish oils.
Analyst, 29: 210–215. Jul. 1904.
–Analyzes and compares a variety of animal and plant oils, including dugong oil (211–214).

x Lluch Belda, Daniel

1965. Algunas notas sobre la biología del manati.
An. Inst. Nac. Invest. Biológico-Pesqueras (Mexico), 1: 405–419. 7 figs. Dec. 1965.
–Very good gen. acc. of sirs., the occurrences of manatees in Mexico, their food, probable seasonal migrations, live capture and transport, and their attempts at locomotion out of the water.

Llueca, Federico Gómez: SEE Gómez Llueca, Federico.

Lobão Tello, José L.P.: SEE Tinley et al., 1976.

Lobley, J. Logan

1908. The American fauna and its origin.
Jour. Victoria Inst., 40: 190–221.
–Sirs., 109?

Lockwood, C.C.

1974. America's vacationland or extinctionland.
Internatl. Wildlife Mag., Summer 1974.
–Brief mention of manatees in Florida, 353.

Lodi, Liliane Ferreira: SEE Borobia & Lodi, 1992.

x Loerzel, S.; & Reep, Roger Lyons

1991. Rindenerne: unusual neuron aggregates in manatee cerebral cortex.

- Internatl. Assoc. Aquatic Animal Med. Proc.*, 22: 166–171. 1 tab. 2 figs.
–Describes the morphology and distribution of Rindenkerne in the brain of a Florida manatee, and discusses their possible developmental history and possible association with functions of the vibrissae.
- n Loftin, Horace
1956. Mermaids.
Science News Letter, 69(22): 350. 1 fig. Jun. 2, 1956.
–Brief pop. acc. of sirs.
- x Loftin, Horace
1958. Some sirens!
Science News Letter, 73(16): 256. 1 fig. Apr. 19, 1958.
–Pop. acc. of manatees, including their teaching of their young to breathe.
- Lombardo, Ralph: SEE Lewis et al., 1984.
- x Lomolino, Mark V.; & Ewel, Katherine Carter
1984. Digestive efficiencies of the West Indian manatee (*Trichechus manatus*).
Florida Scientist, 47(3): 176–179. 2 tabs.
–In a captive adult female Florida manatee fed lettuce and water hyacinth, the consumption rate was low relative to body size but digestive efficiencies were high (about 80% for *Eichhornia*, 90% for lettuce), due to the low fiber content of the plants, the long passage time (about 6 days), and the long gut.
- x Long, Austin
1965. Smithsonian Institution radiocarbon measurements II.
Radiocarbon, 7: 245–256.
–Reports that the *Hydrodamalis* skull fragment from Monterey Bay, California (see R.E. Jones, 1967) was dated at $18,940 \pm 1100$ years B.P. (254).
- Lönnberg, Einar
1907. Barkdjuret eller “Stellers sjö-ko.” [Bark-animal or Steller’s sea cow.]
Fauna och Flora (Uppsala), 2(1): 1–13. 1 fig.
–In Swedish. The fig. is reproduced from E. Büchner (1891).
- Looze, Yvan: SEE Jacquet et al., 1989.
- x Lopes, Alberto Peão
1936. Fauna Moçambicana. Sirenios.
Moçambique, Documentário Trimestral (Lourenço Marques), 2(6): 27–36. 2 pls. 1 map. Jun. 30, 1936.
–Pop. acc. of sirs. in general and the dugong (31–36) in particular. Reports that a herd of “more than 50” was seen at Inhambane in early 1936.
- Lord, R.: SEE Fernandez Badillo et al., 1988.
- x Lorenz, Ludwig von
1904. Das Becken der Stellerschen Seekuh.
Abh. Geol. Reichsanst. Wien, 19(3): 1–11. 2 figs. 1 pl. Apr. 1904 (read Feb. 10, 1904).
–Abstrs.: *Verh. Zool.-Bot. Ges. Wien*, 54: 142–143; *Jahresber. Anat. Entwickl.* (n.s.), 10(3): 124–125? Describes the innominate bone of *Hydrodamalis* and compares it in detail with those of the other Recent sirs., also mentioning some fossil forms.
- Loth, Edward
1923. Kanal trous transversaires des vertébrés cervicales des cétacés et siréniens.
Arch. Biol. Soc. Sci. Varsovie, 1(20): 1–14. 14 figs.
–In Polish; French summ. Published 1925?
- Loth, Edward
1924. Les trous transversaires des vertébrés cervicales des cétacés et siréniens.
Bull. Inst. Oceanogr. Monaco, No. 403: 1–12. 14 figs.
–Published 1921? Reprinting of Loth (1923)?
- Loth, Edward
1931. Sur les fractures guériés des os des cétacés et des siréniens.
Bull. Inst. Oceanogr. Monaco, No. 571: 1–8. 10 figs.
- Loth, Edward
1940. Sur les fractures guériés des os des cétacés et des siréniens.
Résult. Camp. Sci. Prince Albert I Monaco, 103: 247–254. 10 figs.
–Reprinting of Loth (1931)?
- Lothrop, Samuel Kirkland
1937. *Coclé: an archaeological study of central Panama*.
Mem. Peabody Museum Archaeol. & Ethnol. (Harvard Univ.), vols. 7 & 8. Illus.
- x Loughman, William D.; Frye, Fredric L.; & Herald, Earl S.
1970. The chromosomes of a male manatee *Trichechus inunguis*.
Internatl. Zoo Yearbk., 10: 151–152. 1 tab. Pl. 49.
–Describes and illustrates the karyotype of the Steinhart Aquarium’s manatee. He was found to have 56 chromosomes, like both species of elephants, but of different types, indicating a rather distant relationship.
- Lounsbury, Valerie: SEE St. Aubin & Lounsbury, 1990.
- Loveland, Franklin O.: SEE ALSO Bradley et al., 1983.
- x Loveland, Franklin O.
1976. Tapirs and manatees: cosmological categories and

- social process among the Rama Indians of eastern Nicaragua. In: M.W. Helms & F.O. Loveland (eds.), *Frontier adaptations in lower Central America*. Philadelphia, Inst. for Study of Human Issues, 67–82. 1 tab.
–Describes the symbolic significance, hunting, and carcass utilization of manatees and rituals and myths concerning manatees among the Rama. Manatees symbolize culture, society, and order, in contrast to untamed nature and disorder, represented by tapirs. [The Rama are evidently people of great discernment.]
- x Loveless, J.R.
1949. Dugongs.
Walkabout, 15(3): 8. 1 fig. Mar. 1, 1949.
–Letter to the editor, reporting the deliberate netting of dugongs for oil on the Queensland coast north of Maryborough.
- Loven, Sven
1935. *Origins of the Tainan culture, West Indies*. Goteborg, Elanders Boktryckerei Aktiebolag.
- x Lovisek, James
1977. Man and manatee.
Wildlife, 19(2): 62–64. 5 figs. Feb. 1977.
–Pop. acc. of manatees and their conservation problems in the Amazon region.
- Lowe, F.: SEE Smyth & Lowe, 1836.
- x Lowell, W.R.; & Flanigan, W.F., Jr.
1980. Marine mammal chemoreception.
Mammal Review, 10(1): 53–59. Mar. 1980.
–Briefly comments on the lack of knowledge of sir. chemoreception beyond anecdotal reports (56–57).
- Lowenstein, Jerold M.: SEE ALSO Rainey et al., 1984; Shoshani et al., 1986.
- x Lowenstein, Jerold M.
1985. Molecular approaches to the identification of species.
Amer. Scientist, 73(6): 541–547. 6 figs. Nov.–Dec. 1985.
–Presents a phylogeny of sirs., proboscideans, and hyraxes based on immunological distances. It shows the sir.-proboscidean divergence at about 55 Ma, but the dugongid-trichechid divergence at only 17–20 Ma and the *Hydrodamalis-Dugong* divergence at only 4–8 Ma. It also shows *T. senegalensis* as the sister group of *T. manatus* + *T. inunguis*.
- Lowenstein, Jerold M.; Sarich, Vincent M.; & Richardson, B.J.
1981. Albumen systematics of the extinct mammoth and Tasmanian wolf.
Nature (London), 291(5814): 409–411. 4 tabs. 2 figs. Jun. 4, 1981.
- Lowenstein, Jerold M.; & Scheuenstuhl, Gary
1991. Immunological methods in molecular paleontology.
Philos. Trans. Roy. Soc. London, B. Biol. Sci., 333(1268): 375–380.
–Discusses proteins extracted from bones of *Hydrodamalis gigas*.
- x Lowery, George Hines, Jr.
1943. Check-list of the mammals of Louisiana and adjacent waters.
Louisiana St. Univ. Mus. Zool., Occas. Paper, No. 13: 213–257. 4 tabs. 5 figs. Nov. 22, 1943.
–Records (253–254) two Louisiana occurrences (one on the Texas border) of *T. m. latirostris*, the same as those cited by Gunter (1941a). However, he misquotes Gunter; the 1937 Cow Bayou specimen is confused with the 1928 Copano Bay specimen. One of these animals may have been killed by petroleum-survey blasting.
- Lowery, George Hines, Jr.
1974. *The mammals of Louisiana and its adjacent waters*. Baton Rouge, Louisiana St. Univ. Press, xxiv + 565. Aug. 16, 1974.
- x Lowes, R.H.G.
1970. Destruction in Sierra Leone.
Oryx, 10(5): 309–310. Sep. 1970.
–“The manatee” is said to still occur “in the maze of creeks and waterways between the mouths of the Sewa and Pampana rivers” (310).
- Lowry, Billie H.
1979. Marine mammals in captivity—keeping them healthy.
Sea Grant 70's (Virginia Polytechnic Inst. & State Univ.), 9(3): 3–5. 2 figs. Mar. 1979.
–Includes a short report on clinical studies of Florida manatees conducted by Paul Cardeilhac.
- x Loyau, George E.
1897. *The history of Maryborough and Wide Bay and Burnett Districts from the year 1850–1895*. Brisbane, Pole, Outridge, 1–385.
–Gives a one-paragraph account of the early years of the dugong fishery in Queensland, Australia (365).
- x Loyer, Bertrand
1993. How now, sea cow?
BBC Wildlife, 11(10): 54–55. 2 figs. Oct. 1993.
–Describes the unusual behavior of a lone dugong encountered by a film crew in Vanuatu, including poking divers with its tusks and “trying to drown” turtles. Notes a movement of the top of the nasal

- passages associated with the animal's production of "chirping sounds."
- Loyer, Godefroy: SEE N., 1719.
- Lucas, A.H.S.; & Le Souëf, W.H. Dudley
1909. *The animals of Australia. Mammals, reptiles and amphibians.*
Melbourne, Whitcombe & Tombs Ltd.
—Dugong, 60–62.
- x Lucas, Frederic August
1891. Animals recently extinct or threatened with extermination, as represented in the collections of the U.S. National Museum.
Rept. U.S. Natl. Mus., 1888–1889: 609–649. 22 figs. Pls. 95–105. 7 maps.
—Account of the extermination of *Rytina* and the collection of specimens of it (623–627, pl. 99). Includes a transl. of L. Stejneger's (1885) description of the excavation of a skeleton on Bering Island.
- x Lucas, Frederic August
1916. Sea cows, past and present.
Amer. Mus. Jour. [= Nat. Hist.] (New York), 16(5): 315–318. 3 figs. May 1916.
—Pop. acc. of sirs.
- Lucas, Frederic August
1923. Modern mermaids.
Nat. Hist. (New York), 23(2): 122–124. 3 figs. Mar.–Apr. 1923.
- Ludlow, Mark E.: SEE Correa-Viana et al., 1991; O'Shea et al., 1988; O'Shea & Ludlow, 1992.
- Ludwig, Hubert: SEE Leunis & Ludwig, 1883.
- Lukaszewicz, Karol
1965. Sto lat osiagniec hodowlanych Wroclawskiego Ogrodu Zoologicznego. [A hundred years of animal breeding in the Wroclaw Zoological Garden.]
Prezegl. Zool., 9(2): 191–198. Illus.
—In Polish; Engl. summ. Mentions manatees.
- Lull, Richard Swann
1908. The evolution of the elephant.
Amer. Jour. Sci., (4)25: 169–212. 27 figs. 4 charts.
—Abstrs.: *Geol. Zentralbl.*, 13: 203?; *Jahresber. Anat. Entwickl.* (n.s.), 14(3): 162?; *Sci. Prog.*, 4: 663? ?Repr.: *Ann. Rept. Smithson. Inst.*, 1908: 641–675. 25 figs. 2 pls. 4 charts. 1909 (sirs., 641); *Yale Peabody Mus. Nat. Hist. Guide*, No. 2: 1–44. Illus.
- x Lull, Richard Swann
1910. Relation of embryology and vertebrate paleontology.
Pop. Sci. Monthly, 77: 150–153. Aug. 1910.
—Mentions the lack of hind limbs in sir. embryos, their gross similarity to ungulates, and the development of their caudal flukes (152–153).
- Lull, Richard Swann
1912. Symposium on ten years' progress in vertebrate paleontology. Cretaceous dinosaurs.
Bull. Geol. Soc. Amer., 23: 208–212.
—Sirs., 220, 246??
- Lull, Richard Swann
1917. *Organic evolution. A text-book.*
New York, xviii + 729. 253 figs. 30 pls.
—Rev.: *Jour. Geol.*, 26: 285? Sirs., 322.
- x Lütken, Christian Frederik
1873. Bidrag til Kundskab om Arterne af Slaegten *Cyamus* Latr. eller Hvallusene.
Danske Vidensk. Selsk. Skr., (5)10(3): 229–284. 4 pls.
—In Danish; French summ. Regards "*Cyamus Rhytinae*" as a synonym of *C. ovalis*, and considers the St. Petersburg "*Rhytina*" skin fragment to be that of a *Balaena*. Suggests that the crustaceans described by Steller as parasitic on *Hydrodamalis* were not cyamids, but rather caprellids like *Leptomera* or *Proto* (270–274, pl. 2).
- x Lütken, Christian Frederik
1893. Andet Tillaeg til "Bidrag til Kundskab om Arterene af Slaegten *Cyamus* Latr. eller Hvallusene."
Danske Vidensk. Selsk. Skr., (6)7(9): 421–434. 1 pl.
—In Danish; French summ. Suggests that modern sir. parasites could throw light on the affinities of "*Sirenocyamus Rhytinae*" (433).
- Lyamin, O.I.: SEE Mukhametov et al., 1992.
- Lydekker, Richard: SEE ALSO Flower & Lydekker, 1891; Nicholson & Lydekker, 1889; Thomas & Lydekker, 1897, 1898.
- Lydekker, Richard
1887. *Catalogue of the fossil Mammalia in the British Museum. Part V. Containing the group Tillodontia, the orders Sirenia, Cetacea, Edentata, Marsupialia, Monotremata and Supplement.*
London, xxxv + 345. 55 figs.
—Rev.: E.D. Cope, *Amer. Naturalist*, 22: 164–165, 1888. Sirs., 7–13.
- x Lydekker, Richard
1892. On a remarkable sirenian jaw from the Oligocene of Italy, and its bearing on the evolution of the Sirenia.
Proc. Zool. Soc. London, 1892(1): 77–83. 2 figs. Jun. 1892 (read Feb. 2, 1892).
—Discusses a specimen [probably of Late Eocene age] that he assigns to *Halitherium veronense*, while referring the latter species to *Prorastomus* and calling the new combination *Prorastoma veronense*. Concludes that the Sirenia are descended from selenodont artiodactyls.

- Lydekker, Richard
 1896. *A geographical history of mammals*.
 Cambridge, xii + 400. 82 figs. 1 map.
 –German transl., Jena, 1897. Reviews: *Natural-
 iste*, (2)11: 138–140, 1897?; *Rev. Sci. Nat.*, 9:
 292–293?; *Science* (n.s.), 5: 26–32, 1897?
- Lydekker, Richard
 1899. On the supposed former existence of a sirenian in
 St. Helena.
Proc. Zool. Soc. London, 1899(3): 796–798. Oct.
 1899 (read Jun. 20, 1899).
- Lydekker, Richard
 18??. *Royal natural history*.
- Lydekker, Richard
 1901. Some animals exterminated during the nineteenth
 century.
Nature, 58: 252–254.
- Lydekker, Richard
 1903. The palaeontological case for evolution.
Knowledge, 26(= n.s. 18): 73–76, 100–102,
 123–126.
 –Sirs., 124.
- Lydekker, Richard
 1907. The recently discovered Tertiary Vertebrata of
 Egypt.
Sci. Prog., 1: 668–682.
 –Sirs., 673.
- x Lyman, Charles P.
 1939. A vestigial lower incisor in the dugong.
Jour. Mamm., 20(2): 229–231. 1 fig. May 14,
 1939.
 –Reports a vestigial I/3 in a dugong from Tagbac
 Bay, Philippines.
- x Lynd, Warden
 1975. Thanks, guys, said the seacows.
Florida Sportsman, 6(5): 28–29. 2 figs. Jun.–Jul.
 1975.
 –Pop. acc. of the rescue and rehabilitation
 of two cow-calf pairs by the Miami Seaquarium,
 Florida.
- Lyons, E.
 1969. *My Florida*.
 Port Salerno (Florida), Valentine Books.
 –Manatee, chap. 24.

M

Maack, G.A.

1874. Report on the geology and natural history of the Isthmuses of Choco, of Darien, and of Panama. In: T.O. Selfridge, *Reports of explorations and surveys to ascertain the practicability of a ship-canal between the Atlantic and Pacific oceans by the way of the Isthmus of Darien*. Washington, Govt. Printing Off., 155–175.
–Manatee, 171. See E.A. Goldman (1920).

Macarovici, Nec

1978. Sur la faune des mammifères fossiles neozoïques de la Roumanie. In: V. Ianovici (ed.), *Le symposium sur "La géologie des Carpates Méridionales"*. *Rev. Roum. Geol. Geophys. Geogr., Ser. Geol.*, 22: 71–98.

x Macarovici, Nec; & Oescu, C.V.

1942. Quelques vertébrés fossiles trouvés dans les calcaires récifales de Chişinău (Bessarabie). *Acad. Român., Mem. Sect. Ştiinţifice* (Bucharest) (3)17: 351–382. 8 figs. 7 pls.
–Reviews the Sarmatian fauna of Kishinev, including ribs of "*Manatus maeoticus*" (351, 353, 376–379, 382, pl. 7).

x MacCreagh, Gordon

1926. *White waters and black*. New York, Century Co., 1–335.
–Repr.: Univ. Chicago Press, 1985. Brief accounts of manatees and manatee hunting (with harpoons and blowguns) by the Tiquié Tucana Indians of the Rio Uaupés region, Brazil (277, 311, 313, 323–324; fig. facing p. 309), including "feeling out" the manatee with a "long thin rod" before harpooning it!

MacDonald, B.W.: SEE Bryden et al., 1978.

MacDougall, W.L.

1983. Wetlands in trouble—a rush to save them. *U.S. News & World Report*, 94: 77. Jun. 1983.

Macedo, Lino de

1906. *Amazonia: repositório alfabético de termos ... do grandioso vale do Amazonas*. Lisbon, Typ. Adolpho Mendonça, iv + 303. Illus.
–Manatee, 152, 189.

MacFadden, Bruce J.: SEE Webb et al., 1981.

x Macfadyen, W.A.

1952. Note on the geology of the Daban area and the localities of the described nautiloids. In: O. Haas

& A.K. Miller, Eocene nautiloids of British Somaliland.

Bull. Amer. Mus. Nat. Hist., 99(5): 347–349. 2 tabs. Aug. 5, 1952.

–Reports "sirenian remains" from the Middle Eocene (Lutetian) "Nautilus beds" of the Lower Daban series (348).

MacGillivray, John

1852. *Narrative of the voyage of H.M.S. Rattlesnake, commanded by the late Captain Owen Stanley, R.N., F.R.S., &c. during the years 1846–1850. Including discoveries and surveys in New Guinea, the Louisade Archipelago, etc. To which is added the account of Mr. E. B. Kennedy's expedition for the exploration of the Cape York Peninsula*. London, T. & W. Boone (2 vols.).

–Repr.: Adelaide, Libraries Board of South Australia, 1967. Dugong at Moreton Bay, 2: 22–25, 48.

x Machado, Francisco de Paula

1940. Peixe-boi da Amazonia.

A Voz do Mar, 19(175): 246. Sep.–Oct. 1940.

–Notes the use of Amazonian manatee meat (for "mexira") and hide, and prices of the latter; details proposed regulations for hunting, especially during the Dec.–Feb. "breeding season," and proposals for increased efficiency in processing of hides.

MacInnes, I.G. (ed.)

1950? *Australian fisheries: a handbook prepared for the second meeting of the Indo-Pacific Council, Sydney, April 1950*.

Sydney, Halstead Press Pty. Ltd., 1–103. 6 figs. 6 pls. 1 map.

–Brief comment on dugongs in Australia (43).

Mackal, Roy P.

1976. *The monsters of Loch Ness*.

London, Futura Publications Ltd.: [xi] + 401. Illus.

–Considers (in rather surprising detail) Steller's sea cow and other sirs. as possible candidates for the Loch Ness monster, presents an odd and rather lumpy reconstruction of *Hydrodamalis* (136), discusses sir. behavior, environment, and morphology, and illustrates (158) a "Hypothetical (but unlikely) sirenian" with a giraffe-like neck(!) that might conceivably account for the monster sight-

ings (135–137, 143–144, 148–149, 155, 157–159, 162, 166–167, 171–172, 177, 181, 185–186, 192, 195, 197, 204, 283, 310–312). The most noteworthy part of this quaint exercise in speculative sirenology is a calculation (311–312), based partly on Steller's measurements and partly on unsupported estimates, of the body volume and lung volume of *Hydrodamalis*, which concludes that lung gas volume was about 13% of body volume.

- x Mackay-Sim, Alan; Duvall, David; & Graves, Brent M.
1985. The West Indian manatee (*Trichechus manatus*) lacks a vomeronasal organ. *Brain Behav. Evol.*, 27(2–4): 186–194. 3 figs.
–Reports that a vomeronasal organ and nasopalatine ducts are absent in Florida manatees, but some olfactory epithelium and a rudimentary olfactory bulb are present.
- x MacKenzie, Debora
1985. In defence of the dugong, dolphin and manatee. *New Scientist*, 105(1447): 4. 1 fig. Mar. 14, 1985.
–Notice of a meeting held in Geneva to implement the United Nations Environment Programme plan for marine mammal conservation.
- MacKerras, M.J.
1958. Catalogue of Australian mammals and their recorded internal parasites. Part II. Eutheria. *Proc. Linn. Soc. New South Wales*, 83: 126–143.
- Mackey, Daniel James
1979. Can the Florida manatee survive? *Natl. Parks & Conserv. Mag.*, 53(3): 14–17. 4 figs. Mar. 1979.
- x MacLaren, James P.
1967. Manatees as a naturalistic biological mosquito control method. *Mosquito News*, 27(3): 387–393. 5 figs. Sep. 1967.
–Recounts the history of weed and insect control studies using manatees in Panama, including the introduction into the Canal Zone of nine *T. manatus* from Panama and one *T. inunguis* from Peru. Concludes that effective weed control by manatees would require an unrealistically large herd of the animals.
- Maclatchy, A.R.: SEE ALSO Malbrant & Maclatchy, 1949.
- Maclatchy, A.R.
1936. Dans la brousse gabonaise. *Terre et la Vie* (Paris), 6: 360–369. 8 figs.
–Mentions *T. senegalensis* in the Ogowe River, 362.
- Maclaud, C.
1908. La chasse du lamantin en Afrique occidentale. *La Nature* (Paris), 36(= (2)20?): 289–290. 1 fig. Apr. 11, 1908.
- x MacMillan, L.
1955. The dugong. *Walkabout*, 21(2): 17–20. 2 figs. Feb. 1, 1955.
–Detailed account of the natural history of the dugong in northwestern Australia, including shark predation, Aboriginal hunting with harpoons, economic use, and eyewitness descriptions of calving and the mother's teaching the calf to swim.
- D MacNeil, F.S.; Wolfe, J.A.; Miller, D.J.; & Hopkins, David M.
1961. Correlation of Tertiary formations of Alaska. *Bull. Amer. Assoc. Petrol. Geol.*, 45(11): 1801–1809. 2 figs. Nov. 1961.
- x MacPhee, R.D.E.; & Wyss, André R.
1990. Oligo-Miocene vertebrates from Puerto Rico, with a catalog of localities. *Amer. Mus. Novit.*, No. 2965: 1–45. 3 tabs. 12 figs. Feb. 27, 1990.
–Reviews Puerto Rican occurrences of fossil sirs and other vertebrates ranging in age from Early Oligocene to Late Miocene or Early Pliocene, and describes new material tentatively referred to *Caribosiren turneri* and *Metaxytherium* cf. *calvertense*, as well as an unnamed species of small Miocene dugongid and indeterminate sir. remains (2, 14–17, 21–38, 41). Some of the specimens described are from the former fossil vertebrate collection of the late Narciso Rabell Cabrero, now housed at the American Museum of Natural History.
- Macreadie, M.
1988. Plight of the dugong—what does the future hold? *Austral. Fish.*, 47(11): 24–26. Illus.
- Macveigh, W.P.
1974a. [Letter on dugongs.] *Malayan Nature Jour.*, 28(1): 35. 1 pl. Sep. 1974.
- x Macveigh, W.P.
1974b. On the dugong. *Malayan Nature Jour.*, 28(2): 117. Dec. 1974.
–Letter to the editor commenting further (pursuant to Macveigh, 1974a) on Bland's (1970) report of a dugong in Johore Strait. Briefly discusses the reported countershading of dugongs and the possibility of confusing them with the porpoise *Neomeris*.
- Madin, Stewart H.: SEE Morales et al., 1985.
- Maeda, Toshitsugu: SEE Furusawa et al., 1993.
- Magalhães, Couto de: SEE Couto de Magalhães.
- Magalhães de Gândavo, Pêro de: SEE Gândavo, Pêro de Magalhães de.
- Magalowski, G.: SEE Hunger & Magalowski, 1957.
- Magnier, P.
1962. Étude géologique du gisement de vertébrés du

- Gebel Zelten (Libye).
C.R. Somm. Séanc. Soc. Géol. France, 1962(2): 55–57. 3 figs.
- Magnus, Richard W.
 1978. The prehistoric and modern subsistence patterns of the Atlantic coast of Nicaragua: a comparison. In: B.L. Stark & B. Voorhies (eds.), *Prehistoric coastal adaptations: the economy and ecology of maritime Middle America*. New York, Academic Press: 61–80.
- Magnussen, Harro: SEE Soza de Castro, F. de, 1907.
- Magor, Diana Marion: SEE Bengtson & Magor, 1979; Domning & Magor, 1977; Rainey et al., 1984.
- Mahoney, J.A.; & Ride, W.D.L.
 1975. Index to the genera and species of fossil Mammalia described from Australia and New Guinea between 1838 and 1968. *West. Austral. Mus. Spec. Publ.*, No. 6: 1–249. –Lists *Chronozoon* as probable synonym of *Phascolumys gigas* (152); also lists *Halicore brevirostris* (157).
- Maia, Alvaro Botelho
 1936. *Mensagem do Governador ... á Assembléa Legislativa [do Estado do Amazonas], na abertura da sessão ordinária, em 3 de Maio de 1936*. Manaus (Brazil), Secção de Obras da Imprensa Publica, 1–283 + tables. –Lists, in an unnumbered table, the quantities of manatee hides, mixira, and lard exported from municipalities in the state of Amazonas, Brazil, in 1935.
- Maia, Alvaro Botelho
 1944. *Exposição ao Excelentissimo Senhor Doutor Getulio Vargas, Presidente da República... (Maio de 1943–Julho de 1944)*. [Interventoria Federal no Estado do Amazonas.] Manaus (Brazil), D.E.I.P., 1–191. –Lists, in an unnumbered table, statistics on exports of manatee hides from the state of Amazonas, Brazil, in 1943.
- Maigret, J.: SEE ALSO Dupuy & Maigret.
- Maigret, J.
 1982. Recherches scientifiques dans les parcs nationaux du Sénégal. XVIII. Les mammifères marins du Sénégal. Etat des observations dans les parcs nationaux. *Mem. Inst. Fondam. Afr. Noire*, 92: 221–231.
- Maison, E.
 1899. Sirénes et lamantins. *Cosmos* (n.s.), 40: 106–108. 1 fig.
- Major, Charles Immanuel Forsyth (= C.J. Forsyth Major)
 1899. Note on a table of contemporary geological deposits arranged stratigraphically, with their characteristic genera of mammals. *Geol. Mag.*, (4)6: 60–69. –Sirs., 62.
- Malbrant, René; & Maclatchy, A.R.
 1949. *Faune de l'équateur africain français*. Paris, Lechevalier (Encyclopédie Biologique, vols. 35–36). –Mentions the occurrence of manatees on the Sangha R., Congo.
- x Malde, Harold E.
 1959. Geology of the Charleston phosphate area, South Carolina. *U.S. Geol. Surv. Bull.*, 1079: 1–105. Illus. –Reports the zygomatic process of a sir. [USNM no. 321754] from the Oligocene Cooper Marl (19, 21).
- x Maldonado-Koerdell, Manuel
 1953. Segundo hallazgo de sirenidos fosiles en Mexico. *Ciencia* (Mexico), 13(7/8): 146–148. 1 fig. Nov. 20, 1953. –Reports sir. rib fragments and associated invertebrates from “Middle or Upper Oligocene” rocks of Chiapas, Mexico. These may instead be Eocene in age (Domning, Morgan, & Ray, 1982: 7).
- Maloy, W. Lee: SEE Lew et al., 1986.
- x Maluf, N.S.R.
 1989. Renal anatomy of the manatee, *Trichechus manatus*, Linnaeus. *Amer. Jour. Anat.*, 184(4): 269–286. 3 tabs. 43 figs. Apr. 1989. –Detailed description of the Florida manatee's kidney, lavishly illustrated with line drawings and photographs, but with little discussion of function. Compares the kidney of *T. manatus* with those of other sirs. and other mammals, and concludes that its structure suggests “a mammal capable of forming a copious but only moderately hypertonic urine.”
- Malukovich, Vladimir
 1977. [Where are you, Steller's sea cow?] *Kamchatsky Komsomolets* (Petropavlovsk): 1 p. 1 fig. Jan. 1977. –In Russian. Newspaper article, quoted in J.-P. Sylvestre (1983). Describes the supposed sighting of a live *Hydrodamalis* in Anapkinskaya Bay, Kamchatka, in the summer of 1976.
- x Mani, S.B.
 1960. Occurrence of the sea cow, *Halicore dugong* (Erxl.), off the Saurashtra coast. *Jour. Bombay Nat. Hist. Soc.*, 57(1): 216–217. –Reports the finding of a dead dugong and the capture of another (13 feet 4 inches in length) near Bedi Bunder (Jamnagar), northwestern India, at about 22°30'N. This was considered by the journal's editor to be an extension of the recorded

range in India. See also Silas (1961).

x Manigault, Gabriel E.

1886. [Discovery of two unusual fossils.]
Proc. Elliott Soc. of Science and Art, 2(12): 91–92. Apr. 1886 (read Mar. 12, 1885).
–Notice of the presentation of a “dugong” specimen (the holotype of *Dioplotherium manigaulti* Cope, 1883, from the bed of the Wando River near Cainhoy, South Carolina) to the Charleston Museum by Mr. G.W. Coxe in 1878. Manigault later exhibited this specimen to the Society on Sep. 29, 1887 (see *Proc. Elliott Soc.*, 2(23): 177, March 1888).

Mann, E.W.

- 1903a. Dugongöl.
Jour. Soc. Chem. Ind., 1903: 1357.

Mann, E.W.

- 1903b. [Title?]
Pharm. Jour., 71: 840.
–Abstr.: *Analyst*, 29: 93, 1904.

Mann de Toledo, Peter: SEE Toledo, Peter Mann de

Manning, Earl M.: SEE Prothero et al., 1988.

Manzij, Sawwa Filimonowitsch: SEE ALSO Sukhanov & Manzij, 1986.

Manzij, Sawwa Filimonowitsch; & Pilipshuk, Oleg Yaroslawowitsch

1984. Morphologie und Funktionsanalyse des Axialskeletes des amerikanischen Lamantins *Trichechus manatus* Lin., 1758, Mammalia, Sirenia.
Zool. Jahrb. Anat., 111(3): 257–295. 17 figs.
–Engl. summ.

Marañón, Gregório: SEE Pires de Lima, F. de C., 1952.

Marburg, O.

1920. Neue Studien über die Zirbeldrüse.
Arb. Neurol. Inst. Wien. Univ. (Obersteiner's), 23(1).

Marcet-Riba, J.

1956. Sucesión estratigráfica y fósiles del Eoceno de la Zona de Palafrugell-Esclana-Regencós (Bajo Ampurdán, provincia de Gerona).
Notas y Com. Inst. Geol. y Minero España, No. 42: 48–49.
–Reports sir. rib fragments from the Eocene of Esclanyà, Spain.

x Marcoy, Paul (pseudonym of Laurent Saint-Cricq)

1869. *Voyage a travers l'Amerique du Sud*. Paris, L. Hachette & Cie. (2 vols.), Vol. 1: 1–704; Vol. 2: 1–519. Illus.
–Engl. transl.: Marcoy (1875). Interesting accounts of Amazonian manatees, including Indians' use of manatee-hide straps in wrapping the dead (1: 671–672), hunting (1: 673; 2: 149–153), possible fighting between male manatees (2: 151), a manatee fetus (2: 152, 155), anatomical and

gastronomical comments (2: 155–157), and the capture of a manatee by a jaguar (2: 202–204). There are two pictures of hunting (1: 673; 2: 153), one of the fetus (2: 155), and a most dramatic one of the jaguar and his prey (2: 203). See also Van Bree & Duguay (1977).

x Marcoy, Paul (pseudonym of Laurent Saint-Cricq)

1875. *Travels in South America*. New York, Scribner, Armstrong, & Co. (2 vols.), Vol. 1: xii + 524; Vol. 2: viii + 496.
–A somewhat abridged and bowdlerized transl. of Marcoy (1869). “Lamantin” is incorrectly translated as “seal” (2: 42). Scientific names are added here and there (e.g., “*Manatus americanus*,” 2: 187). The same illustrations are used as before. The sir. material is found in vol. 2: 42, 45, 187–194, 235–237.

x Marcus, H.

- 1921a. Über die Zahl und die Verschiebung von Zähnen besonders bei *Manatus*.
Arch. Entwicklungsmech. Organismen, 47(4): 571–586. 4 tabs. 3 figs. Pls. 18–19. Apr. 18, 1921.
–Discusses the mode of tooth replacement in manatees in the light of a study of a series of *T. senegalensis*. Concludes that replacement is principally due to forward pressure from teeth erupting at the back of the toothrow, and that the number of teeth formed during the lifetime is at least 12–15 per jaw quadrant (274–286, pls. 18–19).

x Marcus, H.

- 1921b. Über die Zähne und die Korrelation ihrer Zahl mit dem Alter, untersucht an Blindwühlen, Krokodilen und Seekühen. In: *Deutsche Zahnheilkunde: Forschung und Praxis. Ein Band zu Ehren von O. Walkoff*. Ed. 2. (Sonderheft von *Deutsche Zahnheilkunde*.) Leipzig, Georg Thieme, 145–157. 6 figs. Pls. 5–6.
–First ed., 1920? Discusses the number of erupted and developing teeth in *T. inunguis* and *T. senegalensis*, and the process of tooth replacement (154–156).

x Marden, Luis

1947. Guatemala revisited.
Natl. Geogr. Mag., 92(4): 525–564. Illus. Oct. 1947.
–Account of harpooning a manatee in Lake Izabal, Guatemala (552, 558); photo, 546.

Marine Mammal Commission, U.S.

1986. *Habitat protection needs for the subpopulation of West Indian manatees in the Crystal River area of northwest Florida*.

NTIS Document No. PB 86-200250, iv + 46. 2 tabs. 7 figs.

—Written by David Laist, David Gluckman, Daryl Domning, and James Mead. Report originally issued Sep. 1984.

Marine Mammal Commission, U.S.

1988. *Preliminary assessment of habitat protection needs for West Indian manatees on the east coast of Florida and Georgia.*

NTIS Document No. PB 89-162002, xi + 107. 9 tabs. 21 figs. Dec. 1988.

—Written mainly by David Laist.

Marius (pseudonym)

1917. The Australian dugong.

The Lone Hand, May 1, 1917: 300-301. 1 fig.

—Pop. acc. of dugongs and dugong hunting in Queensland.

Markley, Susan: SEE Clark, M.G., 1990.

x Marlow, B.J.

1962. A recent record of the dugong, *Dugong dugon*, from New South Wales.

Jour. Mamm., 43(3): 433. Aug. 20, 1962.

—Reports an adult male washed ashore near Sydney in 1959, possibly killed by cold (see also Anon., 1959b). It bore specimens of the barnacle *Platylepas hexastylus*, and its mouth contained the seagrasses *Halophila ovalis* and *Zostera capricornii*.

Mármol Burgos, Andrés E.: SEE ALSO Neville et al., 1976.

x Mármol Burgos, Andrés E.

1976. Informe preliminar sobre las plantas que sirven de alimento al manatí de la Amazonia (*Trichechus inunguis*). [Abstr.]

Resúmenes del Primer Congreso Nacional de Botánica (Lima, Peru, Jun. 28-Jul. 3, 1976): 31-32.

—Lists *Pistia stratiotes*, *Eichhornia crassipes*, *E. azurea*, *Echinochloa* sp., *Paspalum* sp., and Convolvulaceae among manatee food plants in the Peruvian Amazon.

x Marmontel, Miriam; Odell, Daniel Keith; & Reynolds, John E., III

1992. Reproductive biology of South American manatees. In: W.C. Hamlett (ed.), *Reproductive biology of South American vertebrates.*

New York, Springer-Verlag, 295-312. 1 tab. 9 figs.

—Reviews available data on sir. reproductive anatomy, physiology, and behavior and their implications for conservation, emphasizing *T. manatus* and *T. inunguis*.

Marmontel, Miriam; O'Shea, Thomas J.; & Humphrey, Stephen R.

1990. *An evaluation of bone growth-layer counts as an age-determination technique in Florida manatees.*

NTIS Document No. PB 91-103564, x + 94. 9 tabs. 34 figs. Sep. 1990.

Marquardsen, Hugo

1920. *Angola.*

Berlin, D. Reimer (E. Vohsen), viii + 134. Frontisp. 12 pls. Maps.

—Sirs., 69.

Marsden, William

1811. *The history of Sumatra, containing an account of the government, laws, customs, and manners of the native inhabitants, with a description of the natural productions, and a relation of the ancient political state of that island.* Ed. 3.

London, printed for the author by J. M'Creery, viii + 479.

—Allen 525. Duyong, 122 (not mentioned in ed. 1?).

Marsh, Helene D.: SEE ALSO Bryden et al., 1978; Denton et al., 1980; Elliott et al., 1979; Heinsohn et al.; Hudson & Marsh, 1986; Lanyon et al., 1989; Leatherwood & Reeves, 1989; McCabe et al., 1978; Murray et al., 1977; Nishiwaki & Marsh, 1985; Preen et al., 1989; Rowlett & Marsh, 1985; Smith & Marsh, 1990; Spain et al.; Appendix 1, *Dugong Newsletter.*

Marsh, Helene D.

1977. The alimentary canal of the dugong. [Abstr.] *Bull. Austral. Mamm. Soc.*, 4(1): 32. Sep. 1977 (read May 1977).

Marsh, Helene D.

1978. Age determination in the dugong *Dugong dugon*, using dentinal growth layers. [Abstr.] *Bull. Austral. Mamm. Soc.*, 5(1): 37-38. Read May 1978.

x Marsh, Helene D.

1980. Age determination of the dugong (*Dugong dugon* (Müller)) in northern Australia and its biological implications. In: W.F. Perrin & A.C. Myrick, Jr. (eds.), *Age determination of toothed whales and sirenians.*

Repts. Internatl. Whaling Comm., Special Issue, 3: 181-201. 6 tabs. 19 figs.

—Describes in detail the morphology and internal structure of the incisors and cheek teeth, and correlates their growth layers, size, and eruption with season of death, body length, puberty, and closure of cranial sutures. Growth layers were also observed in the tympanic bones and ribs, but not the humerus or malleus. Concludes that the tusks are best for age determination, that one growth layer group is deposited in them per year, and that marked accessory layering probably represents individual rather than latitudinal variation. Life span is in excess of 50 years. Puberty in both sexes occurs at 9 or more years of age in the Townsville population, but several years later in the Morning-

ton Island population. The tusks of males erupt at about 12 and 14+ years in these two populations, respectively. An age-length growth curve for both sexes, based on number of dentinal growth layer groups, is presented. Techniques used in aging dugong teeth are also described on pp. 41–45 of this volume.

x Marsh, Helene D. (ed.)

1981a. *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979.*

[Townsville (Australia)], James Cook Univ., vii + 400. Illus.

–The “second ed.” of this work (1984) is essentially identical in content, but is typeset rather than reproduced from typescript and has different pagination (viii + 240), and the paper by Blair has been updated with newly published names of parasites. The original pagination is used here for indexing. Contains 22 seminar papers and abstracts, listed in this bibliography by their authors (1–203); two sets of conservation recommendations (205–216); 10 background papers, listed here by author (217–343); 2 workshop reports, listed here by author (345–368); and, as appendices, sample data sheets for carcass salvage and aerial surveys used by the James Cook University and Papua New Guinea dugong projects (369–398) and a list of participants in the conference (399–400).

The seminar papers and abstracts are by Bertram, Nishiwaki et al., Hendrokusumo et al., Brownell et al., Jones, Heinsohn (2), Elliott, Prince et al., Marsh (2), Anderson, Chase, Hudson, Spain & Marsh, Murray, Denton, Miyazaki et al., Campbell & Ladds, Yamasaki et al., Kamiya & Yamasaki, and Kataoka & Asano. The background papers are by Heinsohn (2), Denton, Rainey, Marsh (2), Marsh & Glover, Blair, Spain & Marsh, and Channells & Morrissey. The workshop reports are by Marsh & Heinsohn and Marsh & Kasuya.

n Marsh, Helene D.

1981b. The life history parameters of the dugong and their implications for conservation. [Abstr.] In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.).

[Townsville (Australia)], James Cook Univ. (vii + 400), 88–90.

–Abstr. of Marsh (1980).

n Marsh, Helene D.

1981c. The food of the dugong. [Abstr.] In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.).

[Townsville (Australia)], James Cook Univ. (vii + 400), 164–165.

–Abstr. of Marsh, Channells, Heinsohn & Morrissey (1982).

x Marsh, Helene D.

1981d. Preliminary description of the reproductive organs of the female dugong and suggested methods of specimen collection as part of a carcass salvage program. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.).

[Townsville (Australia)], James Cook Univ. (vii + 400), 248–259. 1 tab. 6 figs.

–Describes the gross anatomy of the female reproductive tract, discusses the evidences of ovulation and pregnancy, and recommends procedures for specimen collection and preservation.

x Marsh, Helene D.

1981e. Techniques used for determining age in dugongs based on the examination of layers in hard tissues. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.).

[Townsville (Australia)], James Cook Univ. (vii + 400), 311–343. 1 fig.

–Describes in detail techniques for collecting, processing, sectioning, staining, and examining dugong teeth. Also discusses layering in bones and the use of aspartic acid racemization in teeth and eyelenses. Includes a glossary (335–339).

x Marsh, Helene D.

1983. Conserving the dugong (cowfish) in Vanuatu.

Naika, Jour. Vanuatu Nat. Sci. Soc., No. 9: 1–5. 1 fig. Mar. 1983.

–French & Pidgin summs. Gen. acc. of dugong biology, with some comments on dugongs in Vanuatu and recommendations for their protection.

Marsh, Helene D.

1984a. How Borrooloola “May-Day” launched air rescue for dugongs and turtles.

Habitat Australia, 12(4): 2–5. 4 figs. Aug. 1984.

Marsh, Helene D.

1984b. The dugong problem.

Queensland Fisherman, Sep. 1984: 8.

x Marsh, Helene D.

1984c. Stranded!

Simply Living, 2(5): 106–107. 6 figs.

–Pop. acc. of rescuing dugongs and turtles stranded by Cyclone Kathy in northern Australia.

Marsh, Helene D.

1984d. Marine mammals: gargantuan yet graceful. In: *The Readers' Digest book of the Great Barrier Reef.*

Sydney, Readers' Digest, 298–303. 10 figs.

x Marsh, Helene D.

1986a. The status of the dugong in Torres Strait. In: A.K. Haines, G.C. Williams, & D. Coates (eds.), *Torres Strait Fisheries Seminar, Port Moresby, 11–14 February 1985*.

Canberra, Austral. Govt. Publ. Serv. (vii + 344), 53–76. 8 tabs. 4 figs.

—On the basis of an aerial survey, available life-history data, and available catch statistics, a population model is formulated that indicates that the Torres Strait dugong population has been seriously overexploited in the recent past, is insufficient to support the present catch level, and is in danger of extermination.

Marsh, Helene D.

1986b. 'Dugong is Number One Tucker.'

Oceanus, 29(2): 102. 1 fig. Summer 1986.

—See also B.E.T. Hudson (1986).

Marsh, Helene D.

1986c. Dugong life history: implications for management of Australian populations. In: S. Burgin (ed.), *Endangered species: social, scientific, economic and legal aspects in Australia and the South Pacific. Proceedings of a conference held at the University of Sydney, May 11 and 12, 1984*.

Sydney, Total Environment Centre (iv + 231), 163–187. 5 tabs.

—Abstr.: *Austral. Mar. Science Assoc. Bull.*, 79: 26–27, 1982.

Marsh, Helene D.

1986d. Research on dugongs and other marine mammals by James Cook University of North Queensland. In: P.D. Shaughnessy (ed.), Report of CSIRO Marine Mammal Workshop.

CSIRO Tech. Memo., No. 26: 42–43. Mar. 1986.

x Marsh, Helene D.

1988a. An ecological basis for dugong conservation in Australia. In: M.L. Augée (ed.), *Marine mammals of Australasia: field biology and captive management*.

Sydney, Roy. Zool. Soc. New South Wales (vii + 140), 9–21. 2 tabs. 3 figs. Mar. 1988.

—Gen. acc. of dugong biology, ecology, and status in Australia, with preliminary data from a radiotracking study and dugong population estimates for several parts of the northern coast.

x Marsh, Helene D.

1988b. Dugong research: current status and opportunities. In: A.J. Dartnall (ed.), *Australian tropical marine science and technology: current status and opportunities*.

[Canberra], Austral. Marine Sciences & Technologies Committee, Austral. Inst. Marine Science, Dept. of Science, & Great Barrier Reef Marine Park Authority (1–260), 128–130.

—Short summary of the types and results of dugong research being conducted in Australia.

x Marsh, Helene D.

1988c. Dugongs of the southeast coast.

Whalewatcher, 22(4): 8–10. Cover illus. + 3 figs. Winter 1988.

—Detailed gen. acc. of dugongs in Australia.

Marsh, Helene D.

1988d. The dugong problem. In: F. Gray & L. Zann (eds.), *Traditional knowledge of the marine environment in northern Australia. Proceedings of a workshop held in Townsville, Australia, 29 and 30 July 1985*.

Great Barrier Reef Marine Park Authority Workshop Ser., No. 8: 120–131.

x Marsh, Helene D.

1988e. The importance of marine parks for the management of dugongs in Australian waters.

Proc. Symp. Endangered Marine Animals & Marine Parks (Cochin, India, Jan. 12–16, 1985), 1: 495–502. 1 fig. Oct. 1988.

—Reviews dugong life history, causes of mortality, and the role of marine parks and other conservation measures needed for dugong protection.

x Marsh, Helene D. ("Helen E. Marsh")

1989a. Mass stranding of dugongs by a tropical cyclone in northern Australia.

Mar. Mamm. Sci., 5(1): 78–84. 1 tab. 4 figs. Jan. 1989.

—Reports the stranding of at least 27 dugongs in the Northern Territory in 1984, of which 23 were rescued. Describes the condition, behavior, sex, and reproductive status of the stranded animals, and gives data on the age, reproductive status, stomach contents, and heavy metal status of 3 that were necropsied.

Marsh, Helene D.

1989b. Tracking dugongs by satellite.

The Pilot (Newsletter of the UNEP Marine Mammal Action Plan), No. 3: 10–11. 1 fig. Apr. 1989.

Marsh, Helene D.

1989c. Dugongidae. Chapter 57 in: *Fauna of Australia, Vol. 1B. Mammalia*.

Canberra, Austral. Govt. Publ. Serv. (ix + 401–1227), 1030–1038. 3 figs.

Marsh, Helene D.

1990. Sea cows. In: E. Gould & G. McKay (eds.), *Mammals*.

New York & Sydney, Mallard Press (Encyclopedia of Animals) (240 pp.), 164–166. 4 figs.

- Marsh, Helene D.
1991. Our tropical siren.
Austral. Geogr., No. 21: 42–57. Cover illus. + 30 figs. Jan.–Mar. 1991.
–See also Preen (1991).
- x Marsh, Helene D.; & Anderson, Paul K.
1983. Probable susceptibility of dugongs to capture stress.
Biol. Conserv., 25(1): 1–3. Jan. 1983.
–Reports an elevated blood serum potassium level in a dugong chased by a speedboat and harpooned; recommends caution in research and management actions that may result in stress to dugongs.
- x Marsh, Helene D.; Channells, Peter W.; Heinsohn, George Edwin; & Morrissey, Janice
1982. Analysis of stomach contents of dugongs from Queensland.
Austral. Wildl. Res., 9(1): 55–67. 3 tabs. 4 figs.
–Abstr.: Marsh (1981c). Stomach contents of 96 dugongs confirmed that the diet consists almost entirely of seagrasses of all available genera, and probably reflects the generic composition of the beds where the animals were captured. Rhizomes were present in all stomachs, including that of a neonatal calf. Non-epiphytic algae were found in 51% of stomachs, but in small amounts. Also discusses the effects of cyclones on dugong feeding areas and diet, and the dietary importance of seagrass rhizomes vs. leaves and stems.
- xD Marsh, Helene D.; Channells, Peter W.; & Morrissey, Janice
1979. *A bibliography of the Recent Sirenia.... Prepared for the Dugong Seminar Workshop held at James Cook University, May 8–13th 1979.*
Townsville (Australia), James Cook Univ., i + 163.
–Lists 1,746 titles alphabetically by author; no index. Some entries are annotated. The preface states: “This bibliography was prepared as a background paper for the Dugong Workshop.... It was prepared in a limited time and without access to a major library. Accordingly, we were forced to rely on previous published and unpublished bibliographies of the recent Sirenia.” This was the most comprehensive sirenian bibliography compiled prior to the present one, and it contains many paleontological and desmostylian as well as neontological references.
- x Marsh, Helene D.; & Eisentraut, M.
1984. Die Gaumenfalten des Dugong.
Zs. Säugetierk., 49(5): 314–315. 1 fig.
–Illustrates and briefly describes the rather reduced pattern of palatal ridges in a dugong.
- Marsh, Helene D.; Freeland, W.J.; Limpus, Colin J.; & Reed, P.C.
1986. The stranding of dugongs and sea turtles resulting from Cyclone Kathy, March 1984: a report on the rescue effort and the biological data obtained.
Conservation Commission of the Northern Territory (Darwin, Australia), *Tech. Rept.*, No. 25: iv + 60. 8 tabs. 24 figs. May 1986.
- x Marsh, Helene D.; Gardner, Blair R.; & Heinsohn, George Edwin
1981. Present-day hunting and distribution of dugongs in the Wellesley Islands (Queensland): implications for conservation.
Biol. Conserv., 19(4): 255–267. 2 tabs. 4 figs. Apr. 1981.
–Describes present hunting techniques using harpoons and outboard motors, and the results of aerial surveys of the Wellesley Islands area. Peak hunting activity coincides with seasonal movements of dugongs; 374 animals were counted, of which about 40 are taken each year. Hunting is now easier and less dangerous, but some sociological factors discourage it, and some hunters try to avoid taking pregnant females.
- x Marsh, Helene D.; & Glover, Timothy D.
1981. A preliminary description of the reproductive organs of the male dugong and suggested methods of specimen collection. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.). [Townsville (Australia)], James Cook Univ. (vii + 400), 261–273. 4 figs.
–Abstr.: *Proc. Soc. Study Fert. Camb.*, 1979: 16. Describes the gross anatomy of the male reproductive tract, and recommends procedures for tissue and blood collection and preservation. Also suggests topics and approaches for future study.
- x Marsh, Helene D.; & Heinsohn, George Edwin
1981. Report of the aerial survey workshop. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.). [Townsville (Australia)], James Cook Univ. (vii + 400), 345–353. 2 tabs. 1 fig.
–Describes a workshop on aerial survey techniques, consisting of flights over the Cleveland Bay area (Queensland). Dugong sightings by different teams of observers are tabulated and compared, showing repeatability of the results.
- x Marsh, Helene D.; & Heinsohn, George Edwin
1982. Conserving the dugong: Australia’s responsibility.

- Bull. Austral. Littoral Soc.*, 5(5): 1–5. 2 figs. Nov. 1982.
 –Text reprinted: Marsh & Heinsohn (1983). Gen. acc. of dugong biology, threats to dugong survival, and conservation needs in Australia and Papua New Guinea.
- n Marsh, Helene D.; & Heinsohn, George Edwin
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 –Repr. of Marsh & Heinsohn (1982).
- x Marsh, Helene D.; Heinsohn, George Edwin; & Channells, Peter W.
 1984. Changes in the ovaries and uterus of the dugong, *Dugong dugon* (Sirenia: Dugongidae), with age and reproductive activity. *Austral. Jour. Zool.*, 32(6): 743–766. 4 tabs. 13 figs.
 –Gross and histological studies of 49 female reproductive tracts showed extreme flattening of the ovaries, a high frequency of sterile cycles, low fecundity, greater activity of the right ovary than the left, and the presence of ovarian cysts and parasites. The dugong appears to be polyovular and polyestrous. Placental scars are considered the best index to parity. Similarities of reproductive biology between dugongs and elephants are pointed out.
- x Marsh, Helene D.; Heinsohn, George Edwin; & Glover, Timothy D.
 1984. Changes in the male reproductive organs of the dugong, *Dugong dugon* (Sirenia: Dugongidae [sic]) with age and reproductive activity. *Austral. Jour. Zool.*, 32(6): 721–742. 5 tabs. 12 figs.
 –Gross and histological studies of 59 male reproductive tracts showed wide variation in testicular activity; many males in a population at any given time seem not to be producing sperm. Differences from and resemblances to other “paenungulates” and other mammals are discussed.
- x Marsh, Helene D.; Heinsohn, George Edwin; & Marsh, Lachlan M.
 1984. Breeding cycle, life history and population dynamics of the dugong, *Dugong dugon* (Sirenia: Dugongidae). *Austral. Jour. Zool.*, 32(6): 767–788. 5 tabs. 3 figs.
 –Reports that fertility is discontinuous in both males and females; calving is diffusely seasonal; neonates are 1.0–1.3 m long; sexual maturity is attained at 2.2–2.5 m and at least 9–10 years; gestation lasts about 1 year and lactation at least 1.5 years; the sex ratio is 1:1; the calving interval is 3–7 years; mortality is more important than the age of maturity in influencing population dynamics; estrus can occur during lactation; the low nutritive value of seagrasses may explain the discontinuous fertility; and the delay in maturity may be density-dependent. Gives original accounts of three births, one shark attack, and one case of males fighting with their tusks.
- x Marsh, Helene D.; Heinsohn, George Edwin; & Spain, Alister V.
 1977. The stomach and duodenal diverticula of the dugong (*Dugong dugon*). In: R.J. Harrison (ed.), *Functional anatomy of marine mammals*. London, Academic Press, Vol. 3: 271–295. 1 tab. 10 figs.
 –Describes the gross anatomy, histology, and histochemistry of the stomach and diverticula and discusses their functional and ecological implications. Reports occurrences of the parasites *Paradujardinia halichoris* and *Lankatrema* sp.
- x Marsh, Helene D.; & Kasuya, Toshio
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 –Describes a workshop on the preparation and reading of growth layers in dugong tusks, with tabulation and comparison of the results obtained by experienced and inexperienced readers. Tusks from lower latitudes tended to be harder to score due to their numerous accessory layers.
- Marsh, Helene D.; O'Shea, Thomas J.; & Best, Robin Christopher
 1986. Research on sirenians. *Ambio*, 15(3): 177–180. 4 figs.
- Marsh, Helene D.; & Rathbun, Galen B.
 1987. Tracking dugongs. *Argos Newsletter*, No. 29: 8–9. 1 fig. Mar. 1987.
 –Text in French & Engl.
- x Marsh, Helene D.; & Rathbun, Galen B.
 1990. Development and application of conventional and satellite radio tracking techniques for studying dugong movements and habitat use. *Austral. Wildl. Res.*, 17(1): 83–100. 4 tabs. 8 figs.
 –Describes techniques used on, and data obtained from, 6 male dugongs radiotagged in North Queensland and tracked for 1–16 months. Their movement patterns were surprisingly similar to those of Florida manatees; all spent most of their time in relatively small and overlapping home

ranges near inshore seagrass beds. Only one pubertal male undertook long-distance movements (>140 km in 2 days). Another dugong repeatedly travelled 10 km up a tidal creek. Concludes that conventional transmitters are better for behavioral observations, but satellite transmitters are better for tracking movements.

Marsh, Helene D.; & Saalfeld, W. Keith

1989. The distribution and abundance of dugongs in the northern Great Barrier Reef Marine Park. *Austral. Wildl. Res.*, 16(4): 429-440. 5 tabs. 5 figs.

Marsh, Helene D.; & Saalfeld, W. Keith

1990. The distribution and abundance of dugongs in the Great Barrier Reef Marine Park south of Cape Bedford. *Austral. Wildl. Res.*, 17(5): 511-524. 4 tabs. 8 figs.

Marsh, Helene D.; & Saalfeld, W. Keith

1991. The status of the dugong in Torres Strait. In: D. Lawrence & T. Canfield-Smith (eds.), Sustainable development for traditional inhabitants of the Torres Strait region. *Great Barrier Reef Marine Park Authority Workshop Ser.*, No. 16: 187-194.

x Marsh, Helene D.; & Sinclair, D.F.

1989a. Correcting for visibility bias in strip transect aerial surveys of aquatic fauna. *Jour. Wildl. Manage.*, 53(4): 1017-1024. 1 tab. 1 fig.
-Reports on the procedures used to develop survey-specific perception-bias and availability-bias correction factors in surveys of dugongs in northern Australia.

Marsh, Helene D.; & Sinclair, D.F.

1989b. An experimental evaluation of dugong and sea turtle aerial survey techniques. *Austral. Wildl. Res.*, 16(6): 639-650. 1 tab. 5 figs.

x Marsh, Helene D.; Spain, Alister V.; & Heinsohn, George Edwin

1978. Minireview: physiology of the dugong. *Compar. Biochem. Physiol., Part A*, 61(2): 159-168. 1 tab. 3 figs.
-Briefly summarizes published literature and some unpublished data on dugong anatomy, feeding, digestion, fat composition, excretion, reproduction, respiration, circulation, nervous and endocrine systems, social behavior, and vocalizations.

Marsh, Lachlan M.: SEE Marsh, Heinsohn, & Marsh, 1984.

Marsh, Othniel Charles

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-Repr.: *Proc. Amer. Assoc. Adv. Sci.*, 26: 211-258, 1878. Sirs. in latter, 234, 252.

xD Marsh, Othniel Charles

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-This, the first scientific paper published on desmostylians, describes *Desmostylus hesperus*, n.gen.n.sp., from Alameda County, Calif., on the basis of isolated teeth and a lumbar vertebra deposited in the Yale Peabody Museum. It was believed to be Pliocene in age and related to *Metaxytherium* and *Halicore*. In fact it is Miocene in age, and according to Merriam (1911: 404) the type was actually collected in Contra Costa County.

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x Marshall, Alan J.

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-Ed. 1, Melbourne, Cheshire: iv + 88, illus., 1952. Recounts an Aboriginal story, collected in Arnhem Land, of "The bittern who caught a dugong" (80-84).

Marshall, W.

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x Marshall, W.

1896. Über Waltiere. *Zool. Garten* (Frankfurt), 37: 17-25, 40-48.
-Notes the value to siris. of a heavy skeleton in aiding submergence with large, air-filled lungs (46).

x Martin, J.H.D.

1975. A list of mammals from Stradbroke Island. *Proc. Roy. Soc. Queensland*, 86(12): 73-76. Mar. 1, 1975.
-P. 74: {"There is one Queensland Museum record of a dugong juvenile (J4391, Moreton Bay) and one record of a 'Porpoise' skull (J21718). Dugong (*Dugong australis* Owen, 1847) were common in the waters around Stradbroke Island (the Amity Banks) at the turn of the century, but in latter years sightings have been infrequent."} See also H. Kirkman (1975).

x Martin, Johann Karl

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-"Seperatausgabe des 1sten Theils" of Martin

- (1888). Discusses food plants of "*Manatus latiostris*" (mentioning *Montrichardia* by name) and its range in Suriname (27).
- Martin, Johann Karl
1888. *Bericht über eine Reise nach Niederländisch West-Indien und darauf gegründete Studien. Zweite Teil. Geologie.* Leiden, E.J. Brill, ix + 238. 41 figs. 3 pls. 4 maps. —See also Martin, 1887. Fossil sirs., Aruba & ?Bonaire, 89, 101–103, pl. 1.
- Martin, Larry D.: SEE Whetstone & Martin, 1979.
- Martin, Lawrence: SEE Raza et al., 1984.
- Martin, R.M.
1977. *Mammals of the seas.* London, Batsford, 1–208. —Pop. acc. of dugongs and manatees, chap. 8.
- Martins, Charles
1857. Nouvelle comparaison des membres pelviens et thoraciques chez l'homme et chez les mammifères déduite de la torsion de l'humerus. *Ann. Sci. Nat.*, (4)8: 45–110. Pls. 2–3. —Sirs., 69.
- Martius, Carl Friedr. Phil. von: SEE Spix & Martius, 1831.
- Martyr, Peter (= Martire d'Anghiera, Pietro)
1516. *De orbe novo decades.* Alcalá, A. Guillelmi, 67 leaves. —First printing of the Second and Third Decades. The First Decade was first published in 1511, but does not seem to refer to manatees.
- Martyr, Peter (= Martire d'Anghiera, Pietro)
1533. *De rebus oceanis & orbe nouo decades tres: quibus quicquid de inuentis nuper terris traditum, nouarum rerum cupidum lectorem retinere possit, copiose, fideliter, eruditique docetur. Eivsdem praeterea Legationis Babylonicae libri tres: vbi praeter oratorii myneris pulcherrimum exemplum, etiam quicquid in uariarum gentium moribus & institutis insigniter praeclarum uidit queque terra marique acciderunt, omnia lectu mirè iucunda, genere dicendi politissimo traduntur.* Basileae [= Basel], Ioannem Bebelium, leaves 1–92. —Allen 4. First ed.: Martyr (1516). Engl. transl.: London, William Powell, 1555; repr. in E. Arber, *The first three English books on America...*, Birmingham, 1885, repr. New York, Krauss Repr. Co., 1971. Manati, leaf 60, C, D (in the Eighth Book of the Third Decade).
"Peter Martyr has the distinction of being the earliest historian of the New World ..., a term coined by him" (Morison, 1942).
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- Masterson, James Raymond; & Brower, Helen
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- Mate, Bruce R.; Rathbun, Galen B. ("Geylen Rathburn"); & Reid, James P. ("James Reed")
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- Matoba, N.: SEE Kuroki et al., 1988.
- Matschie, Paul: SEE ALSO Hemprich & Ehrenberg, 1828–1899.
- Matschie, Paul
1893. Die Säugethiere des Togogebietes. *Mitt. Deutsch. Schutzgeb.* (Berlin), 6: 162–180. —Sirs., 180.
- x Matson, George Charlton
1915. The phosphate deposits of Florida. *U.S. Geol. Surv. Bull.*, 604: 1–101. Tabs. 2 figs. 17 pls. —Illustrates the "jawbone of a manatee" (pl. 12) that was later made the holotype of *Metaxytherium floridanum* Hay, 1922; from the Bone Valley Formation.
- Matson, George Charlton; & Clapp, F.G.
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- x Matson, George Charlton; & Sanford, Samuel
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with the deposition of the beds, among them being teeth of horses, rhinoceroses, mammoths, sharks, and manatees.”} “Manatees” here refers to Miocene dugongids, principally *Metaxytherium floridanum*.

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- x Matthes, Ernst
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–Criticizes Abel’s (1912) statements on the hearing of marine mammals, and supports Boenningshaus (1904). Concerning sirs., Matthes concludes (597–599) that their ears are adapted only for hearing in the water and not in the air.
- Matthes, Ernst
1912b. Zur Entwicklung des Kopfskelettes der Sirenen. 1. Die Regio ethmoidalis des Primordialkraniums von *Manatus latirostris*. *Jena. Zs. Natw.*, 48: 489–514.
- Matthes, Ernst
1915. Beiträge zur Anatomie und Entwicklungsgeschichte der Sirenen. 1: Die äussere Körperform eines Embryos von *Halicore dugong* von 15 cm Rückenlänge. *Jena. Zs. Natw.*, 53(= n.s. 46): 557–580. Pl. 8.
- Matthes, Ernst
1921a. Eine bemerkenswerte Eigentümlichkeit am Meckel’schen Knorpel eines Säugethieres: Zusammensetzung des Meckel’schen Knorpels bei *Halicore dugong* aus zwei hintereinander liegenden Teilstücken. *Anat. Anz.*, 54(11): 209–229. 6 figs. Aug. 1, 1921.
- Matthes, Ernst
1921b. Einige Beobachtungen über die Entwicklung des Schädels der Sirenen. *Verh. Deutsch. Zool. Ges. (Berlin)*, 26: 73–75.
- Matthes, Ernst
1921c. Zur Kenntniss des Knorpelschädels von *Halicore dugong*. *Zool. Anz.*, 52: 139–151. 2 figs.
- Matthes, Ernst
1921d. Zur Entwicklung des Kopfskelettes der Sirenen. II. Das Primordialkranium von *Halicore dugong*. *Zs. Ges. Anat.*, 60(1): 1–304. 36 figs. 6 pls.
- Matthes, Ernst
1921e. Neuere Arbeiten über das Primordialkranium der Säugethiere. *Zs. Ges. Anat.*, Abt. 3, 23: 669–912. 13 figs.
- Matthes, Ernst
1929. Die Dickenverhältnisse der Haut bei den Mammalia im allgemeinen, den Sirenia im besonderen. *Zs. Wiss. Zool.*, 134(2/3): 345–357. 1 fig.
- Matthes, Ernst
1945. Zur Embryologie und Systematik der Gattung *Manatus*. *Mem. Estud. Mus. Zool. Univ. Coimbra*, 164:

1-43. 3 figs. 2 pls.

—Synonymizes *Manatus koellikeri* Kükenthal with *T. m. manatus* (42).

Matthew, William Diller

1912. Symposium on ten years' progress in vertebrate paleontology. African mammals.

Bull. Geol. Soc. Amer., 13: 156-162.

—Sirs., 156.

Matthew, William Diller

1915. Climate and evolution.

Ann. New York Acad. Sci., 24: 171-318. 33 figs.

—Rev.: *Amer. Jour. Sci.* (4)40: 83-85. Sirs., 256, 314.

x Matthew, William Diller

1916a. New sirenian from the Tertiary of Porto Rico, West Indies.

Ann. New York Acad. Sci., 27: 23-29. 2 figs. Jan. 28, 1916 (read Nov. 8, 1915).

—Abstr.: *Ann. N. Y. Acad. Sci.*, 26: 439, May 12, 1915? Describes *Halitherium antillense*, n.sp., and compares it with other sirs.; discusses sir. affinities and phylogeny, distribution, and cheek tooth formulae. The age of the new species is given only as "Tertiary"; it is Middle Oligocene according to Reinhart (1959: 21).

D Matthew, William Diller

1916b. Recent progress in vertebrate palaeontology. Mammals.

Science (n.s.), 43: 107-110.

—Desmostylians, 109.

Mattioli, Stefano

1981. È veramente scomparsa la ritina?

Geodes, La Terra che Vive, 3(3): 88-96. 9 figs. Jul.-Aug. 1981.

—Pop. acc. of Steller's sea cow.

Maupin, B.

1969. *Blood platelets in man and animals. Vol. 1.*

Oxford, Pergamon Press, 1-541.

—Considers the manatee blood smear reported by Knoll (1958) to be inconclusive.

Maureta, J.; & Thos y Codina, S.

1881. Descripción física, geológica y minera de la provincia de Barcelona.

Mem. y Com. Mapa Geol. España: 1-487. 8 pls.

—Reports the discovery of fossil bones and teeth, which later proved to be sirenian and were made the holotype of *Metaxytherium catalaunicum* Pilleri et al., 1989.

x Maw, Henry Lister

1829. *Journal of a passage from the Pacific to the Atlantic, crossing the Andes in the northern provinces of Peru, and descending the River Marañon, or Amazon.*

London, John Murray: xv + 486.

—Account of a manatee harpooned at Tabitinga, Brazil (near the border with Peru and Colombia), with general remarks on its appearance and gross anatomy (237-239).

Mawdesley, Thomas L.E.

1974. Some aspects of neoplasia in marine animals. In: F.S. Russell & M. Yonge (eds.), *Advances in marine biology, Vol. 12.*

New York & London, Academic Press (xii + 436), 151-231.

Mawson, Patricia M.: SEE Johnston & Mawson, 1941.

May, James H.

1974. Wayne County geology.

Mississippi Geol. Surv. Bull., 117: 13-194. Illus.

—Mentions sir. ribs from the Upper Oligocene Chickasawhay Formation (96).

May, R.M.: SEE Dayton, P.K., 1975.

x Mayer, Johann

1784. Nachricht von verschiedenen Knochen nicht einheimischer Thiere, so in Böhmen gefunden werden.

Abh. einer Privatgesellschaft in Böhmen (Prague), 6: 260-267. Pls. 3-4.

—Reports teeth and bones of "*Mannatus*" found in excavations at Leutmeriz (Litomerice) and Theresienstadt (Terezin?), Czechoslovakia (262-263). With them were found "verschiedene dünne spitzige stark gebogene Zähne"; could these have been *Rytiodus*-like tusks?

Mayet, Lucien; & Lecointre, Comtesse Pierre

1909. Étude sommaire des mammifères fossiles des faluns de la Touraine, proprement dite.

Ann. Univ. Lyon, Sci. Med. (n.s.), 1, fasc. 26: 1-72. 30 figs.

Maynard, C.J.

1872. Catalogue of the mammals of Florida, with notes on their habits, distribution, etc.

Bull. Essex Inst., 4(10): 137-150.

Maynard, C.J.

1883. The mammals of Florida.

Quart. Jour. Boston Zool. Soc., 2(2): 20.

x Maynes, G.; & Hudson, Brydget E.T.

1981. The mammals on our stamps. Descriptions of the mammals featured on Papua New Guinea's October 1980 stamps issue.

Wildlife in Papua New Guinea, 81/6: 1-6. 4 figs. —Pop. acc. of the dugong, with an illustration of the 7-toea stamp depicting it (4-6).

Mazzeo, Jeff: SEE Dierauf, L.A., 1990.

McAllister, A.: SEE Patton et al., 1989.

D McAnally, Lee McKenzie

1993. Fallacy, felony and fossils from the Sooke Formation.

Vancouver Island Paleontological Society News-

letter, No. 3: 8–9. 4 figs. Spring 1993.

–Relates the history of the type and other specimens of *Cornwallius sookensis*, including their apparent theft from the British Columbia Provincial Museum in 1928 and their mysterious return in 1932.

x McAtee, W.L.

1950. Possible early record of a manatee in Virginia. *Jour. Mamm.*, 31(1): 98–99. Feb. 21, 1950.

–Calls attention to the account by Glover (1676) of an animal seen in the Rappahannock River, which may have been a manatee, or, in my opinion, perhaps a pinniped.

x McBain, James

1860. Notice of a skull of a manatee from Old Calabar. *Rept. 29th Meeting Brit. Assoc. Adv. Sci., Notices*: 150–152. Read Sep. 1859, *fide* McBain (1863). –Describes in detail a skull of *T. senegalensis*.

x McBain, James (“M’Bain”)

1863. Remarks on some comparative anatomical distinctions between the skull of the *Manatus Senegalensis* and that of a manatee from the Bay of Honduras.

Proc. Roy. Phys. Soc. Edinburgh, 2: 261–267. Read Mar. 27, 1861.

–Compares a skull of “*Manatus australis*” with the skull described by McBain (1860).

x McCabe, M.; Hamilton, R.; & Marsh, Helene D.

1978. Some studies on the oxygen affinity of haemoglobin from the dugong. *Compar. Biochem. Physiol., Part A*, 61(1): 19–22. 2 tabs. 3 figs.

–Reports that the oxygen-hemoglobin equilibrium curves did not show the pronounced sigmoidality seen in humans; the oxygen affinities were rather high; and the Bohr effect was not very marked. Significant subunit dissociation of dugong hemoglobin may occur at low concentrations.

McCarthy, T.J.

1986. The gentle giants of Belize. Part II: Distribution of manatees.

Belize Audubon Soc. Bull., 18: 1–4.

McCleery, D.P.: SEE Oldham et al., 1938.

x McClenaghan, Leroy R., Jr.; & O’Shea, Thomas J.

1988. Genetic variability in the Florida manatee (*Trichechus manatus*).

Jour. Mamm., 69(3): 481–488. 4 tabs. Aug. 30, 1988.

–Reports that gel electrophoresis of tissues of salvaged carcasses from 20 counties in Florida showed normal to high levels of polymorphism and heterozygosity, and considerable genetic homogeneity across regions. The latter is attributed to high gene flow. An excess of homozygotes

within regions may be due to natal-area fidelity.

McClintock, Jack

1990. Too nice to live.

Life, 13(14): 42–43, 45–48. 8 figs. Nov. 1990.

–Sequel: *Life*, 14(9): 19. 1 fig. Jul. 1991.

McClune, Michael C.: SEE Bullock et al., 1982.

McClung, Robert M.

1969. *Lost wild America: The story of our extinct and vanishing wildlife*.

New York, William Morrow & Co., 1–240. Illus.

–Brief pop. acc. of manatees in Florida (165–166).

McClung, Robert M.

1977. Man and manatee.

Defenders Mag., 52(3): 187–189. 2 figs.

–Pop. acc. of sirs. and their conservation.

x McClung, Robert M.

1978. Sad songs for the siren seacows.

Defenders Mag., Feb. 1978: 46–47. 2 figs.

–Pop. acc. of sirs. and the discovery of *Hydrodamalis*.

D McCornack, Ellen Condon

1914. A study of the Oregon Pleistocene; the Oregon *Desmostylus* skull.

Oregon Univ. Bull. (n.s.), 12(2): 1–16. Illus.

McCue, J.

1971. Dugong tusks?

Jour. Arabian Nat. Hist. Assoc. (Dhahran), 1: 10.

McEachran, J.D.: SEE Miyake et al., 1992.

McGrigor-Croft, John: SEE ALSO Anon., 1872.

x McGrigor-Croft, John

1860. The dugong: the valuable medicinal properties of its oil in consumption and various diseases.

Zoologist, 18: 7166–7169.

–Describes the marked improvement produced by dugong oil in two cases of scrofula and consumption. Also notes that it helps in treating chronic dyspepsia and dysentery.

McGuire, Peter M.: SEE Bradley et al., 1993.

Mchedlidze, Guram Andreyevich

1976. [Features of the evolution of cetacean fauna from the Black Sea and Caspian Sea regions in the late Oligocene–early Miocene.]

Proc. Congr. Regional Committee on Mediterranean Neogene Stratigraphy, No. 6: 185–187.

McIntosh

1911. A brief sketch of the toothed whales (Odontoceti).

Zoologist, (4)15: 81–103.

–Sirs., 81.

McKenna, Malcolm Carnegie: SEE ALSO Domning et al.,

1986; Novacek et al., 1988; Ray et al., 1994; Wyss et al., 1987.

x McKenna, Malcolm Carnegie

1956. Survival of primitive notoungulates and condy-

larths into the Miocene of Colombia.
Amer. Jour. Sci., 254: 736–743. 2 figs. Dec. 1956.

–P. 739, note: {“Stirton (1947) has described a new genus, *Lophiodolodus*, from the Oligocene Chaparral fauna, found near Tolima, Colombia, comparing it with the didolodonts. I suspect that *Lophiodolodus* is a sirenian; for this reason the genus does not enter into the present discussion.”}

McKenna, Malcolm Carnegie

1969. The origin and early differentiation of therian mammals.

Ann. New York Acad. Sci., 167(1): 217–224.

D McKenna, Malcolm Carnegie

1975. Toward a phylogenetic classification of the Mammalia. In: W.P. Luckett & F.S. Szalay (eds.), *Phylogeny of the primates*. New York & London, Plenum Publ. Corp., 21–46. 3 figs. Dec. 1975.

–Introduces the taxon Tethytheria with the rank of “mirorder” to include the Sirenia, Desmostylia, and Proboscidea, and discusses the cladistic relationships of these orders with other mammals.

x McKenna, Malcolm Carnegie

1980. Early history and biogeography of South America’s extinct land mammals. In: R.L. Ciochon & A.B. Chiarelli (eds.), *Evolutionary biology of New World monkeys and continental drift*. New York, Plenum Publ. Corp., 43–77.

–Suggests that *Florentinoameghinia* and *Lophiodolodus* are both sirs. (66).

xD McKenna, Malcolm Carnegie

1987. Molecular and morphological analysis of high-level mammalian interrelationships. In: C. Patterson (ed.), *Molecules and morphology in evolution: conflict or compromise?* Cambridge, Cambridge Univ. Press, 55–93. 2 tabs. 7 figs.

–Summarizes the evidence tending to place sirs. and desmostylians together with other “paenungulates” in a very early, probably Cretaceous, side-branch of the Eutheria (61–63, 70–71, 79–82).

x McKenna, Malcolm Carnegie

1992. The alpha crystallin A chain of the eye lens and mammalian phylogeny. In: A. Forstén, M. Fortelius, & L. Werdelin (eds.), Björn Kurtén—a memorial volume.

Ann. Zool. Fennici, 28(3–4): 349–360. 2 tabs. 1 fig. Feb. 19, 1992.

–Presents a new cladogram based on eye-lens protein sequence data, showing *Trichechus* closest to hyracoids and tubulidentates and farther from elephants (350, 354–355, 357).

McKillop, Heather I.

1984. Prehistoric Maya reliance on marine resources: analysis of a midden from Moho Cay, Belize.

Jour. Field Archaeol., 11(1): 25–35.

x McKillop, Heather I.

1985. Prehistoric exploitation of the manatee in the Maya and circum-Caribbean areas.

World Archaeology, 16(3): 337–353. 7 figs. Feb. 1985.

–Reviews historical, ethnographic, and archaeological records of manatee exploitation in the Caribbean; discusses the manatee remains found at Moho Cay, Belize, and other Mayan sites; illustrates manatee-bone carvings from Moho Cay; and offers generalizations about patterns of marine and terrestrial resource exploitation in the region.

x McLaren, Suzanne B.; Schlitter, Duane A.; & Genoways, Hugh H.

1986. Catalog of the Recent marine mammals in the Carnegie Museum of Natural History.

Ann. Carnegie Mus., 55(11): 237–296. Nov. 7, 1986.

–Lists 2 *T. inunguis* from Brazil, 26 *T. manatus latirostris* from Florida, and 1 *T. senegalensis* from Cameroun in the Carnegie Museum collection (293–296).

D McLeod, Samuel A.; & Barnes, Lawrence G.

1984. Fossil desmostylians.

Mem. Nat. Hist. Foundation of Orange County (California), 1: 39–44. 6 figs. Jan. 1, 1984.

McMillan, K.: SEE Barile et al., 1983.

x McNally, Robert

1984. The short, unhappy saga of Steller’s sea cow.

Sea Frontiers, 30(3): 168–172. 4 figs. May–Jun. 1984.

–Pop. acc. of *Hydrodamalis* and the Bering expedition.

McNerney, B.B.

1982. Birth of a manatee: an eyewitness account.

Oceans, 15(6): 12. Nov.–Dec. 1982.

–Describes the birth of a wild manatee in the Tomoka R., Florida.

McNulty, Faith

1979. Manatees.

New Yorker, 55(2): 83–89. 1 fig. Feb. 26, 1979.

–Repr. in *The wildlife stories of Faith McNulty*. Garden City (New York), Doubleday & Co. (470 pp.), 49–57, 1980.

McSpadden, J.

1947. *Animals of the world*.

Garden City (New York), Garden City Publ. Co.: 1–345.

- McTurk, William H.
1960. Stories of the manatees.
Jour. Brit. Guiana Mus. & Zoo, No. 26: 34. Jun. 1960.
—Material in No. 23 also? Stories of people killed by manatees' upsetting canoes.
- Mead, James G.: SEE ALSO Marine Mammal Commission, 1986.
- x Mead, James G.
1983. Ri or dugong? (Comment on Wagner [1982]).
Cryptozoology, 2: 161–162. Winter 1983.
—Concludes that the "ri" of New Ireland is not a porpoise, and suggests some sorts of evidence that would help determine whether it is a dugong.
- Meckel, Johann Friedrich
1806. *Abhandlungen aus der menschlichen und vergleichenden Anatomie und Physiologie*. Halle, Hemmerde, & Schwetschke, 1–381.
—Describes the thymus in a manatee fetus.
- Meckel, Johann Friedrich
1825. *System der vergleichenden Anatomie. 2. Theil*. Halle, Renger, 1. Abt. (1824): x + 542; 2. Abt. (1825): x + 638.
- Medeiros, Aury Felix de
1972. *Couros e peles silvestres*. Rio de Janeiro, ?publ. by the author, 1–40.
- Medem, F.
1968. Caza—exterminación de nuestra fauna.
Revista Pispesca (Bogotá), No. 17: 12–14.
- Meduna, A.J.: SEE OSKWE ET AL., 1988.
- Medway, Lord
1965. Mammals of Borneo: field keys and an annotated checklist.
Jour. Malayan Branch, Roy. Asiatic Soc., 36(3)(203): xiv + 193. 5 tabs. Frontisp. 9 figs. 34 pls. 1 map.
—Reports dugong specimens from Sandakan and Kotawaringin; discusses their local distribution and exploitation (154).
- x Medway, William; Bruss, M.L.; Bengtson, John L.; & Black, D.J.
1982. Blood chemistry of the West Indian manatee (*Trichechus manatus*).
Jour. Wildl. Diseases, 18(2): 229–234. 3 tabs. Apr. 1982.
—Blood of 8 wild manatees from Blue Spring, Florida, and 2 captives was similar to samples analyzed by White et al. (1976), but with increased anion gaps, protein, and albumin/globulin ratios. Some values were probably affected by the animals' struggling. A narrow range of serum osmolality may reflect the Blue Spring population's freshwater habitat.
- x Medway, William; Dodds, W. Jean; Moynihan, Ann C.; & Bonde, Robert K.
1982. Blood coagulation of the West Indian manatee (*Trichechus manatus*).
Cornell Veter., 72(2): 120–127. 4 tabs. Apr. 1982.
—Blood samples from 10 Florida manatees showed the presence of clotting factor XII; intrinsic system activities were much higher and extrinsic activities lower than those of the dog; and factor X activity was about the same as in the dog.
- Medway, William; & Geraci, Joseph R.
1986. Clinical pathology of marine mammals. In: M.F. Fowler (ed.), *Zoo and wild animal medicine.*, 2nd. revised ed. Philadelphia, W.B. Saunders (xxiv + 1127), 791–797. Illus.
- x Medway, William; Rathbun, Galen B.; & Black, D.J.
1982. Hematology of the West Indian manatee (*Trichechus manatus*).
Veter. Clin. Pathol., 11(2): 11–15. 3 tabs. 1 fig.
—Hemograms on blood of 10 Florida manatees showed that the red cells were large and fewer in number than in most land mammals; neutrophils and reticulocytes were absent; eosinophils were hard to distinguish from heterophils; large and small lymphocytes, monocytes, and basophils were present; and the total numbers of white cells and platelets were comparable to those in common domestic mammals.
- x Meek, Charles Kingsley
1931. *A Sudanese kingdom: an ethnographical study of the Jukun-speaking peoples of Nigeria*. London, Kegan Paul, Trench, Trubner & Co., xxxiv + 548. Numerous figs. 64 pls. 2 maps.
—Lists clans having manatee taboos, and mentions a couple of manatee myths and superstitions (76–78); gives the formula for a virility charm made from a manatee penis (304).
- Meggers, Betty J.
1971. *Amazonia: man and culture in a counterfeit paradise*. Chicago & New York, Aldine-Atherton, ix + 182.
—Manatees, 25, 33–35, 127, 134, 154, 176.
- x Meggers, Betty J.
1977. Estéril Amazônia.
Veja, No. 456: 48–49. 2 figs. Jun. 1, 1977.
—In Portuguese. A magazine interview in which she urges the raising of manatees in Amazonia as an alternative to cattle raising (49).
- x Meggers, Betty J.; & Evans, Clifford
1957. Archeological investigations at the mouth of the Amazon.

- Bur. Amer. Ethnol. Bull.*, 167: xxviii + 664. 112 pls.
 –P. 570: {“According to La Barre (1666, p. 14), the Aracaret and Palicour hunted the manatee with a harpoon and traded their catch to the French, English, and Dutch.”}
- Meinertz, Th.
 1956. Beitrag zur Kenntniss vom Bau des Magens beim Dugong.
Gegenbaurs Morph. Jahrb., 97: 202–219. 12 figs.
- Meinertz, Th.
 1969. Eine vergleichende Untersuchung über die Säugtiere besonders im Hinblick auf die Nierentypen, das Nierenbecken und die Verzweigungen der grosseren Gefässe.
Gegenbaurs Morph. Jahrb., 113(1): 78–146.
- Mellett, James S.
 1982. Body size, diet, and scaling factors in large carnivores and herbivores.
Proc. North Amer. Pal. Conv., 3: 371–376.
- Mello-Leitão, Candido Firmino de
 1947. *Zoogeografia do Brasil*.
 Rio de Janeiro, Comp. Editôra Nac., 1–649.
- D Mel'nikov, O.A.; & Shustov, L.N.
 1969. O novoï nakhodke ostatkov kosteï drevnykh krupnykh pozvonochnykh na Sakhaline. [On a new finding of bone remains of ancient large vertebrates in Sakhalin.]
Akad. Nauk SSSR, Sibirsk. Otd., Sakhalinsk. Kompleks. Nauch.-Issled. Inst., Trudy, 21: 41–43. 3 figs.
- Melo Carvalho, José Cândido de: SEE Carvalho, José Cândido de Melo.
- Melville, Herman
 1851. *Moby-Dick; or, the whale*.
 New York, Harper & Bros., xxiii + 634.
 –A footnote to Chap. 32 (“Cetology”) reads as follows: {“I am aware that down to the present time, the fish styled Lamatins [sic] and Dugongs (Pig-fish and Sow-fish of the Coffins of Nantucket) are included by many naturalists among the whales. But as these pig-fish are a nosy, contemptible set, mostly lurking in the mouths of rivers, and feeding on wet hay, and especially as they do not spout, I deny their credentials as whales; and have presented them with their passports to quit the Kingdom of Cetology.”} But then, that is a Kingdom they never wished to enter in the first place!
- x Melville, Richard V.
 1985. Opinion 1320: *Hydrodamalis Retzius*, 1794 and *Manatus inunguis* Natterer in Pelzeln, 1883 (Mammalia, Sirenia): conserved.
Bull. Zool. Nomencl., 42(2): 175–176. Jun. 1985.
 –Pursuant to the petitions of Domning (1981c), *Hydrodamalis (Manati) gigas*, and (*Manatus*) *inunguis* are placed on the Official Lists of Names in Zoology, and *Manati* and (*Manatus*) *exunguis* are placed on the Official Indexes of Rejected and Invalid Names.
- Mendes, Amando
 1938. *As pescarias amazonicas e a piscicultura no Brasil (notas e sugestões)*.
 São Paulo, Livr. Editora Record, 1–181. Pls.
 –Manatees, 21, 24–25, 34, 47–53, 75–81, 109–111, 173; pls. facing 30 & 46.
- x Mendes, Amando
 1948. Vamos criar o peixe-boi na represa de Santo Amaro?
Chácaras e Quintais (São Paulo), 78(3): 325–327. 3 figs. Sep. 15, 1948.
 –Pop. acc. of hunting Amazonian manatees (called *T. manatus*) with harpoons and nets, and the use of their meat, oil, and hides. Repeats his earlier suggestion (Mendes, 1938) that manatees be raised commercially.
- Méndez, Eustorgio
 1970. *Los principales mamíferos silvestres de Panamá*.
 Panama, privately published, 1–283. Illus.
 –Manatees, 227–230.
- x Ménégau, A.
 1918. Élevage possible des lamantins comme animaux de boucherie.
C.R. Séanc. Acad. Agric. France, 4(24): 698–705. Séance of Jul. 3, 1918.
 –Summ.: *Bull. Internatl. Inst. Agric., Rome?* Abridged transl. in Beal (1939). Discusses the potential for raising manatees for meat and other products, especially in West Africa. Concludes with some comments by Jean Dybowski (704–705).
- Menon, Gopinathan K.: SEE Elias et al., 1987.
- Mergner, W.: SEE Kaiser et al., 1981.
- Merolla da Sorrento, Jerom
 1814. A voyage to Congo, and several other countries, chiefly in southern Africk. In: J. Pinkerton (ed.), *A general collection of ... voyages and travels...* London, Longman, Hurst, Rees, Orme, & Brown and Cadell & Davies, Vol. 16: 195–316.
 –Transl. from Italian; repr. from Churchill's collection of voyages, vol. 1, p. 521ff. An account of a voyage made in 1682, including a story of manlike “sea-monsters” (210) and a somewhat more credible description of “water-monsters” said to live in a lake at the source of the river Zaire, as well as the “mermaid,” which lives throughout the course of the Zaire (216–217).

Both these latter possibly, and the "mermaid" certainly, are to be identified as manatees; the description of the "mermaid," being at least in part first-hand, is fairly accurate.

xD Merriam, John C.

1906. On the occurrence of *Desmostylus*, Marsh. *Science*, 24(605): 151–152.
–Discusses earlier finds, and two new ones in San Luis Obispo and Orange Counties, California. Comments on the paleoecology of *Desmostylus* and concludes that it was aquatic and hence probably a sir. rather than a proboscidean.

xD Merriam, John C.

1911. Notes on the genus *Desmostylus* Marsh. *Bull. Dept. Geol. Univ. California*, 6(18): 403–412. 11 figs. Nov. 1, 1911.
–Summarizes the knowledge of *Desmostylus* to date; concludes that it is Miocene in age and a sir., though possibly of a new family. States (404) that the type locality of the genus is in Contra Costa County, California, not Alameda Co. as stated by Marsh (1888).

D Merriam, John C.

1915. Tertiary vertebrate faunas of the North Coalinga region of California. A contribution to the study of palaeontologic correlation in the Great Basin and Pacific Coast provinces. *Trans. Amer. Philos. Soc.*, (2)22: 191–234. 49 figs.
–Desmostylians, 196, 208.

x Mertens, Robert

1925. Verzeichnis der Säugetier-Typen des Senckenbergischen Museums. *Senckenbergiana*, 7(1/2): 18–37. Feb. 12, 1925.
–Lists Senckenberg Museum no. 1510, the skin and skeleton of a female dugong from Noura Is., Dahalak Archipelago, Red Sea, as the type specimen of *Halicore tabernaculi* Rüppell (30).

Meunier, Stanislas

1903. Le rôle des êtres vivants dans la physiologie générale de la terre. *Rev. Scient. (Paris)*, (4)20: 769–779.
–Sirs., 772.

Meyer, Grant E.: SEE Raza et al., 1984.

Meyer, Hermann von

1832. *Palaeologica zur Geschichte der Erde und ihrer Geschöpfe*. Frankfurt am Main, Sigmund Schmerber, xii + 560.
–Allen 779. Extracts: *Mag. Nat. Hist. (n.s.)*, 1: 281–293, 341–353, 1837? *Manatus fossilis*, 98; 410?

x Meyer, Hermann von

1837. [Letter to H.G. Bronn, Dec. 4, 1837.]

Neues Jahrb. Min. Geogn. Geol. Pet., 8: 674–677.
–Gives the name *Manatus Studeri* (nomen nudum) to a skull fragment from the Molassen-Sandstein (Burdigalian, Lower Miocene) of Mäggenwyl bei Lenzburg, Canton Aargau, Switzerland (677).

x Meyer, Hermann von

1838. [Letter to H.G. Bronn, Sep. 18, 1838.] *Neues Jahrb. Min. Geogn. Geol. Pet.*, 1838: 667–669.

–Allen 939. Considers *Halicore Cuvieri* de Christol, *Hippopotamus medius* and *H. dubius* Cuvier, and *Manatus Studeri* von Meyer to be synonymous, and proposes for them the new generic name *Halianassa* in the combination *Halianassa Studeri* (667).

x Meyer, Hermann von

- 1839a. Die fossilen Säugethiere, Reptilien und Vögel aus den Molasse-Gebilden der Schweiz. *Neues Jahrb. Min. Geogn. Geol. Pet.*, 1839: 1–9.
–Allen 968. ?Repr.: *Verh. Schweiz. Ges. Natw.*, 23: 60–71, 1838? Lists *Halianassa Studeri* and "Ein noch nicht näher anzugebendes Genus" from Mäggenwyl, Canton Aargau, Switzerland (4).

x Meyer, Hermann von

- 1839b. [Letter to H.G. Bronn, Dec. 1, 1838.] *Neues Jahrb. Min. Geogn. Geol. Pet.*, 1839: 76–79.

–Allen 967. Considers *Pugmeodon Schinzii* and *Halytherium* referable to *Halianassa Studeri*; mentions a single-rooted premolar like the holotype of *Pugmeodon* from the "Molasse von Lörrach," Germany (77).

x Meyer, Hermann von

- 1840a. [Letter to H.G. Bronn, Jun. 26, 1840.] *Neues Jahrb. Min. Geogn. Geol. Pet.*, 1840: 576–587.

–Allen 1000. Mentions the acquisition of additional material of *Halianassa* (587).

x Meyer, Hermann von

- 1840b. [Letter to H.G. Bronn, Jul. 23, 1840.] *Neues Jahrb. Min. Geogn. Geol. Pet.*, 1840: 587–588.

–Allen 1001. Considers *Cheirotherium subapenninum* Bruno synonymous with *Halianassa* von Meyer, *Halitherium* Kaup, and *Halicore Cuvieri* de Christol (587).

Meyer, Hermann von

1842. [Letter to H.G. Bronn, Nov. 23, 1841.] *Neues Jahrb. Min. Geogn. Geol. Pet.*, 1842: 99–102.

–Reports a humerus of *Metaxytherium* from Baltringen, Germany (101).

- x Meyer, Hermann von
1843. [Letter to H.G. Bronn, Jul. 20, 1843.]
Neues Jahrb. Min. Geogn. Geol. Pet., 1843: 698–704.
–Mentions skull fragments of “*Halianassa*” from Flonheim, Germany (702), and considers *Hali-therium Christoli* Fitzinger likewise referable to *Halianassa* (704).
- x Meyer, Hermann von
1846. [Letter to H.G. Bronn, Feb. 26, 1846.]
Neues Jahrb. Min. Geogn. Geol. Pet., 1846: 327–328.
–Synonymizes *Pugmeodon Schinzi* (= *Manatus Schinzi*) with his *Halianassa Collinii* (328). This was apparently the first use of the latter name, which was based on unspecified material from Flonheim, Germany.
- x Meyer, Hermann von
1847. [Letter to H.G. Bronn, Jan. 4, 1847.]
Neues Jahrb. Min. Geogn. Geol. Pet., 1847: 181–196.
–Reports a *Metaxytherium*-like humerus from the “Molasse von Otmarsingen,” Switzerland, and a parietal and scapula of *Halianassa Collinii* from Linz, Austria (189–190).
- Michael, M.A.: SEE Waxell, S., 1962.
- x Michelson, R.C.
1982. Tracking of the Florida manatee.
ISA Trans. (Instrument Soc. Amer.), 21(1): 79–85. 5 figs.
–Discusses the technical problems associated with automated remote tracking of manatees in the Banana R.-Indian R. area, and recommends a VHF time-of-arrival radiotracking system with time-segmented identification.
- Micloucho-Maclay, N. de: SEE Miklouho-Maclay, N. de.
- Middendorf, Alexander Theodor von
1847–1875. *Reise in den äussersten Norden und Osten Sibiriens während der Jahre 1843 und 1844*.
St. Petersburg (4 vols. in 5 + atlas), 1–841.
–Sirs., 4(2): 841.
- Migeod, Frederick William Hugh
1924. *Through Nigeria to Lake Chad*.
London, Heath Cranton Ltd., 1–330. 11 figs. 38 pls. 2 maps.
–Sirs., 147, 167.
- Mignucci Giannoni, Antonio A.
1990. Manatee mortality in Puerto Rico: urgent need for assessment and preventive action.
Whalewatcher, 24(1): 10–12.
- Mikhelson, Viktor M.: SEE Shoshani et al., 1981.
- x Miklouho-Maclay, N. de (= Micloucho-Maclay)
1886. Note on the brain of *Halicore australis* Owen.
Proc. Linn. Soc. New South Wales, 10(2): 193–196. Pl. 24. Read May 27, 1885.
–Account of a dissection of the brain of a dugong from Mabiak, Torres Straits.
- Milani, A.; & Vialli, M.
1928. L’anatomia radiologica della mandibola nei mammiferi.
Ric. Morfol., 8: 323–364. 16 figs.
- Miller, Gerrit Smith, Jr.
1902. The mammals of Andaman and Nicobar Islands.
Proc. U.S. Natl. Mus., 24(1269): 752.
–Mentions dugong bones found in a native hut in the Andaman Islands in 1859.
- x Miller, Gerrit Smith, Jr.
1916. Bones of mammals from Indian sites in Cuba and Santo Domingo.
Smithsonian Misc. Coll., 66(12): 1–10. 1 pl.
–Reports bones of *Trichechus* sp. collected from kitchen middens at San Pedro de Macoris, Santo Domingo, by Theodoor de Booy (9).
- x Miller, Gerrit Smith, Jr.
1918. Mammals and reptiles collected by Theodoor de Booy in the Virgin Islands.
Proc. U.S. Natl. Mus., 54(2244): 507–511. Pl. 81. Oct. 15, 1918.
–Reports bones of *T. manatus* collected from a midden near the mouth of the Salt River, St. Croix, in 1917 (509).
- Miller, Gerrit Smith, Jr.
1924. List of North American Recent mammals.
U.S. Natl. Mus. Bull., 128: xvi + 673.
–Sirs., 503.
- x Miller, Gerrit Smith, Jr.
1929. Mammals eaten by Indians, owls, and Spaniards in the coast region of the Dominican Republic.
Smithsonian Misc. Coll., 82(5)(3030): 1–16. Pls. 1–2. Dec. 11, 1929.
–Records remains of *T. manatus* from three Indian village sites (11–12).
- x Miller, Gerrit Smith, Jr.; & Kellogg, Remington
1955. List of North American Recent mammals.
U.S. Natl. Mus. Bull., 205: xii + 954.
–Gives the synonymies, type localities, and ranges of the subspecies of *T. manatus* (790–791).
- D Miller, Loye Holmes
1915. The fauna of California. In: Z.S. Eldredge (ed.), *History of California*.
New York, The Century History Co. (5 vols.), Vol. 5: 51–76.
–Desmostylians, 72.
- x Miller, Ronald R.
1981. The beach seiners of New Jersey.
National Fisherman, 61(13): 51–53. 6 figs.
–P. 53: (“What they would find there [in “pounds” or funneled nets set 1/2–3 miles offshore

at Long Beach Is., New Jersey] was always a surprise. There were the usual blues, stripers, weakfish, mackerel, sea bass, etc., in season, but sometimes they found huge shark, tuna, rays, sea turtles and even small manatees.”)

Miller, Theophile H.: SEE Floyd et al., 1958.

x Miller, W.D.

1894. Caries der Thierzähne.

Verh. Deutsch. Odont. Ges., 5: 15–24. 2 figs.

Read Apr. 7, 1893.

—Illustrates “caries” in *T. senegalensis* in microscopic section, with a drawing of their associated bacteria(!). The location of these “caries” on the tooth is not specified, but a number of teeth of one dry skull are said to have had them (15–18).

Miller, Walter; & Miller, Jennie Emerson (translators): SEE Steller, G.W., 1899.

x Miller, William A.; Sanson, Gordon D.; & Odell, Daniel Keith

1980. Molar progression in the manatee (*Trichechus manatus*). [Abstr.]

Anat. Rec., 196(3): 128A.

—Notes the presence of enlarged transseptal fibers connecting the teeth (as in kangaroos with molar progression), and suggests they play a role in manatee tooth replacement; assumes the motive force to be due to propalinal occlusion.

Millett, Marcus W.

1914. *Jungle sport in Ceylon from elephant to snipe*.

London, Methuen & Co., xv + 267. Illus.

Millsap, Brian A.: SEE Wood et al., 1992.

x Milne, Lorus Johnson; & Milne, Margery Joan Greene

1982. *A time to be born: an almanac of animal courtship and parenting*.

San Francisco, Sierra Club Books, 1–218. Illus.

—Pop. acc. of breeding and care of young among Florida manatees (154–158, 1 fig.).

Milne, Margery Joan Greene: SEE Milne, Lorus Johnson

Milne-Edwards, Alphonse

1875. Nouveaux documents sur l'époque de la disparition de la faune ancienne de l'île Rodrigue.

Ann. Sci. Nat. (Paris), (6)2(4): 1–20.

—Abstr.: *Ann. Mag. Nat. Hist.*, (4)15: 436–439.

Milne-Edwards, Henri

1834. *Éléments de zoologie, ou leçons sur l'anatomie, la physiologie, la classification et les mœurs des animaux*.

Paris, Crochard, viii + 1066. Illus.

—Allen 816. Issued in 4 parts, 1834–1837.

“Famille des Cétacés herbivores,” 471–472.

Miloché, M.: SEE Giraud-Sauveur & Miloché, 1968.

Minato, M.: SEE ALSO *Desmostylus* Research Committee.

D Minato, M.; Matsui, Masaru; & Ishii, J.

1957. On the stratigraphical position of the *Desmostylus*

tooth found in Tokachi Province, Hokkaido.

Jour. Geol. Soc. Japan, 63(740): 308–316.

—In Japanese; Engl. summ. The tooth is identified as *Desmostylus* cf. *minor*, possibly Oligocene in age.

xD Minch, John A.; Schulte, Kenneth C.; & Hofman, George

1970. A Middle Miocene age for the Rosarito Beach Formation in northwestern Baja California, Mexico.

Geol. Soc. Amer. Bull., 81(10): 3149–3154. 2 figs. Oct. 1970.

—Reports “*Desmostylus* sp.” associated with a ?Hemingfordian camelid and a diverse warm marine fauna of Middle Miocene vertebrates and invertebrates. The age of the fauna is now considered to be Barstovian.

xD Minkoff, Eli A.

1976. Mammalian superorders.

Zool. Jour. Linn. Soc., 58(2): 147–158. Mar. 1976.

—Places the Sirenia and Desmostylia in the Superorders Paenungulata and Amblypoda, respectively; suggests that desmostylians were the amblypod equivalents of sirs. (151–154).

Minnegal, Monica

1984a. Dugong bones from Princess Charlotte Bay.

Austral. Archaeology, 18: 63–71.

x Minnegal, Monica

1984b. A note on butchering dugong at Princess Charlotte Bay.

Austral. Archaeology, No. 19: 15–20. 1 tab. Dec. 1984.

—Describes the condition of bones of 3 dugongs found at an archeological site, and speculates on butchering techniques.

Miranda, Vicente Chermont de: SEE Chermont de Miranda, Vicente.

Mishima, Hiroyuki: SEE Kozawa et al., 1988.

Mishra, Vijay Prakash: SEE Sahni & Mishra, 1975.

xD Mitchell, Edward D., Jr.

1963. Contributions from the Los Angeles Museum-Channel Islands Biological Survey. 37. Brachydont desmostylians from Miocene of San Clemente Island, California.

Bull. So. California Acad. Sci., 62(4): 192–201. 2 tabs. 1 fig. Oct.–Dec. 1963.

—Reports teeth and bone fragments of *Paleoparadoxia* sp., compares them with other desmostylians, and reviews distribution records of the order. States that pachyostosis occurs in bones referred to *Paleoparadoxia*.

xD Mitchell, Edward D., Jr.

1964. Pachyostosis in desmostylids. [Abstr.]

Geol. Soc. Amer. Spec. Paper, No. 76: 214.

- Concludes that desmostylians are pachyostotic.
- x D Mitchell, Edward D., Jr.
1965. History of research at Sharktooth Hill, Kern County, California. *Spec. Publ. Kern Co. Hist. Soc.*: vi + 45. 14 figs. —Reports a tooth of *Desmostylus hesperus* from Sharktooth Hill (iii, 3, 7, 21, 26–29, 36).
- x D Mitchell, Edward D., Jr.
1966. Faunal succession of extinct North Pacific marine mammals. *Norsk Hvalfangst-Tidende*, 1966(3): 47–60. 19 figs. —Gen. acc. of desmostylians (50, 53, 56, 57, 59) and of North Pacific sirs. (56, 59, 60), with figs. of a *Desmostylus* tooth and humerus (56) and life restorations by Bonnie Dalzell of *Desmostylus*, *Paleoparadoxia* (57), and *Halianassa* (59).
- D Mitchell, Edward D., Jr.
1978. Origins of eastern North Pacific sea mammal fauna. In: D. Haley (ed.), *Marine mammals*. Seattle, Pacific Search Press (256 pp.), 13–20. 9 figs.
- x D Mitchell, Edward D., Jr.; & Lipps, Jere H.
1964. Miocene marine vertebrates from San Clemente Island, California. [Abstr.] *Geol. Soc. Amer. Spec. Paper*, No. 76: 214–215. —Summarizes the fauna, which includes a “brachyodont desmostylid, and paenungulate aff. *Desmostylia*,” and considers it comparable to the Sharktooth Hill fauna in age and paleoecology.
- x D Mitchell, Edward D., Jr.; & Lipps, Jere H.
1965. Fossil collecting on San Clemente Island. *Pacif. Discovery*, 18(3): 2–8. 19 figs. May–Jun. 1965. —Includes a brief account of desmostylians, with photos of *Paleoparadoxia* bones from the island and of their collection, and a restoration of the animal by C.A. Repenning (4–6).
- x D Mitchell, Edward D., Jr.; & Repenning, Charles A.
1963. The chronologic and geographic range of desmostylians. *Los Angeles County Mus. Contr. Sci.*, No. 78: 3–20. 4 figs. Dec. 30, 1963. —Summarizes the records of *Desmostylus*, *Paleoparadoxia*, *Cornwallius*, *Vanderhoofius*, and other nominal genera of desmostylians, plus those of North Pacific sirs. Concludes that desmostylians lived in the North Pacific from the Late Oligocene to the end of the Miocene.
- x Mitchell, Janet
1973. Determination of relative age in the dugong *Dugong dugon* Müller from a study of skulls and teeth. *Zool. Jour. Linn. Soc.*, 53(1): 1–23. 10 figs. Aug. 1973. —A study of skull, mandible, and dental variates in 41 northeastern Australian dugongs indicated the presence of three age classes, “juveniles,” “adolescents,” and “adults.” Several of these features may reflect sexual dimorphism.
- x Mitchell, Janet
1976. Age determination in the dugong, *Dugong dugon* (Müller). *Biol. Conserv.*, 9(1): 25–28. 1 fig. Jan. 1976. —Summary of Mitchell (1978).
- x Mitchell, Janet
1978. Incremental growth layers in the dentine of dugong incisors (*Dugong dugon* (Müller)) and their application to age determination. *Zool. Jour. Linn. Soc.*, 62: 317–348. 10 figs. 2 pls. Apr. 1978. —Concludes from a study of Australian dugong tusks that sexual maturity is reached at about 10 growth layers (= 5 or 10 years of age) and that the life span is just under either 30 or 60 years. Tooth succession in the upper jaw is correlated with number of growth layers in the tusks.
- x Mitchell, Janet
1981. The coincidence between a distinct accessory groove in young dugong teeth and a tropical cyclone. *Biol. Conserv.*, 20(2): 99–109. 1 tab. 3 figs. Jun. 1981. —Analyzes the annual layers in the tusks of 4 young Queensland dugongs, discusses the formation and identification of neonatal lines and other types of layering, and shows that a growth disturbance coincided with a cyclone in January 1965.
- x Mitchell, P. Chalmers
1905. On the intestinal tract of mammals. *Trans. Zool. Soc. London*, 17(5): 437–536. 50 figs. Dec. 1905 (read Jun. 6, 1905). —Describes the intestine and cecum of *T. inunguis* and compares them with those of other sirs., other mammals, and birds (464–465, 516, 523, 525, 530). Concludes that with regard to the intestinal tract, the Sirenia, Hyracoidea, and Proboscidea are linked only by shared primitive characteristics.
- Mitchell-Hedges, Frederick Albert
1931. *Land of wonder and fear*. New York & London, Century Co., xviii + 265. Illus. —Mentions Central American manatees.
- x Mitchell, Samuel L.; Smith, J.A.; & Cooper, William
1828. Discovery of a fossil walrus in Virginia. Report of Messrs. Mitchell, J.A. Smith, and Cooper, on a

- fossil skull sent to Dr. Mitchill by Mr. Cropper of Accomac County, Virginia.
Ann. Lyceum Nat. Hist. New-York, 2: 271–272.
 Read Aug. 7, 1827.
 –Notice: *Edinb. New Philos. Jour.*, 5: 325.
 Mentions “ribs and other parts ... supposed to be those of a species of Lamantin or Manati” found in the vicinity of the walrus locality (272).
- Mitra, Harish Chandra: SEE Sahni & Mitra, 1980.
- Mitra, S.K.: SEE Sarkar & Mitra, 1962.
- Mittermeier, Russell A.
 1972. The Amazon: monkeys, manatees ... and men.
Not Man Apart, 2(12): 10–11. 4 figs. Dec. 1972.
- Miyake, T.; McEachran, J.D.; Walton, P.J.; & Hall, B.K.
 1992. Development and morphology of rostral cartilages in batoid fishes (Chondrichthyes: Batoidea), with comments on homology within vertebrates.
Biol. Jour. Linn. Soc., 46(3): 259–298.
 –Discusses formation of rostral cartilages in cetaceans and sirs.
- x Miyamoto, Michael M.; & Goodman, Morris
 1986. Biomolecular systematics of eutherian mammals: phylogenetic patterns and classification.
Syst. Zool., 35(2): 230–240. 2 tabs. 3 figs. Jun. 1986.
 –Supports the grouping of the Sirenia (represented by *T. inunguis*) with the Hyracoidea, Proboscidea, and Tubulidentata in the Paenungulata, based on protein sequences; but concludes that paenungulates and unguulates are not closely related.
- Miyazaki, Nobuyuki: SEE ALSO Nishiwaki et al., 1979.
- n Miyazaki, Nobuyuki; Itano, Kazuomi; Fukushima, Minoru; & Kawai, Shin-ichiro
 1981. Contamination by mercury and organochlorine compounds in the muscle of the dugong on Celebes Island. [Abstr.] In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.). [Townsville (Australia)], James Cook Univ. (vii + 400), 175.
 –Abstr. of Miyazaki et al. (1979).
- x Miyazaki, Nobuyuki; Itano, Kazuomi; Fukushima, Minoru; Kawai, Shin-ichiro; & Honda, Katsuhisa
 1979. Metals and organochlorine compounds in the muscle of dugong from Sulawesi Island.
Sci. Rept. Whales Res. Inst., No. 31: 125–128. 3 tabs.
 –Abstr.: Miyazaki et al. (1981). Reports that metal and residue levels in two female dugongs were much lower than in carnivorous marine mammals.
- Miyazaki, Shigeo: SEE ALSO Kobayashi et al., 1993.
- Miyazaki, Shigeo; Horikawa, Hideo; & Aizu Fossil Research Group
 1988. [Skull of fossil sirenian from Takasato, Fukushima Prefecture.] In: Y. Hasegawa (ed.), [*Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals.*] Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010: 100–101. Mar. 1988.
 –In Japanese.
- x Möbius, K.
 1861. Die hornigen Kieferplatten des amerikanischen Manatus.
Arch. Naturgesch., 27(1): 148–156. Pl. 7.
 –Describes the gross and microscopic anatomy of the rostral pads of a manatee from Belize, and gives measurements of the skull.
- Mohan: SEE Lal Mohan.
- Mohr, Erna
 1923. Die Säugethiere der Südsee-Expedition der Hamburgischen Wissenschaftlichen Stiftung 1908–1909.
Mitt. Zool. Staatsinst. Zool. Mus. Hamburg, 40: 67–78.
 –Dentition of “*Sirenia australis*,” 68.
- x Mohr, Erna
 1950. Ein Hautstück der Stellerschen Seekuh, *Rhytina gigas* Zimm. 1780.
Zool. Anz., 145(7/8): 181–185. 6 figs. Sep. 1950.
 –Illustrates and discusses the Hamburg skin fragment of *Hydrodamalis*; also illustrates skulls of *Dugong* and *Hydrodamalis* in the Hamburg Museum. Reprints Zimmermann’s (1780) description of *Manati gigas* (184).
- Mohr, Erna
 1957. *Sirenen oder Seekühe*. Wittenberg-Lutherstadt, A. Ziemsen Verlag (Die neue Brehm-Bücherei, No. 197), 1–61. Illus.
- x Mok, Wai-yin; & Best, Robin Christopher
 1979. Saprophytic colonization of a hyphomycete on the Amazonian manatee *Trichechus inunguis* (Mammalia; Sirenia).
Aquatic Mammals, 7(3): 79–82. 4 figs.
 –Reports a skin fungus resembling *Cercospora* in captive and wild *T. inunguis* calves.
- Moka, Willem: SEE Erfemeijer et al., 1993.
- Molnár, Gábor
 1970? *Aventuras na mata amazônica*. São Paulo, Livros Irradiantes S.A., 1–198.
 –Transl. of the author’s *Kalandok a braziliai öserdöben*, 1940. Manatee, 93–97.
- x Molnar, Ralph E.
 1982. A longirostrine crocodylian from Murua (Wood-

lark), Solomon Sea.

Mem. Queensland Mus., 20(3): 675–685. 3 figs. Pls. 1–2.

—Describes material from Papua New Guinea associated with the type specimen of *Halicore brevirostre* [sic] De Vis, 1905, and considers the fauna Pleistocene in age (676, 679). Also notes Etheridge's (1900) report of fossil vertebrae of *Halicore dugong* from Murua (680).

x Moloney, C.A.

1883. *International Fisheries Exhibition, London, 1883.... On West African fisheries, with particular reference to the Gold Coast colony.*

London, Wm. Clowes & Sons, Ltd., 1–79. Read Oct. 24, 1883.

—Describes a manatee trap and its use, mentions vernacular names and seasonal movements of manatees in the Gold Coast, and gives measurements of one that was caught in a drift-seine near Lagos (27–29).

Monard, A.

1938. Résultats de la mission scientifique du Dr. Monard en Guinée Portugaise. 1937–1938. II. Ongulés. *Arq. Mus. Bocage* (Lisbon), 9: 150–196. 9 figs.

Moncharmont Zei, Maria; & Moncharmont, Ugo

1987. Il *Metaxytherium medium* (Desmarest) 1822 (Sirenia, Mammalia) delle arenarie tortoniane (Miocene sup.) di S. Domenica di Ricardi (Catanzaro, Italia).

Mem. Sci. Geol. (Univ. Padova), 39: 285–341. 2 tabs. 3 figs. 14 pls. Dec. 1987.

x Mondolfi, Edgardo

1974. Taxonomy, distribution and status of the manatee in Venezuela.

Mem. Soc. Cient. Nat. La Salle, 34(97): 5–23. 11 figs. Jan.–Apr. 1974.

—Spanish summ. Reports on the examination of 3 specimens, and concludes that only *T. manatus* and not *T. inunguis* occurs in the lower Orinoco River. Discusses the movements, feeding, hunting, economic uses, and conservation problems of manatees in Venezuela.

Monod, Théodore

1925. Notes sur le dugong de Madagascar. *Revue Gen. Sci.*, No. 6: 163. Mar. 30, 1925.

Monod, Théodore

1928. *L'industrie des pêches au Cameroun.* Paris, Soc. d'Éditions Géographiques, Maritimes et Coloniales, 1–504. Illus.

x Monroe, Watson Hiner

1980. Geology of the Middle Tertiary formations of Puerto Rico.

U.S. Geol. Surv. Prof. Paper, 953: iv + 93. 8 tabs. 50 figs. 1 pl.

—Reports sir. rib fragments from the upper member of the Cibao Formation (Early Miocene) near Corozal (38), and from the Ponce Limestone (Miocene) near Ponce, Puerto Rico (78).

Montanus, Arnoldus

1673. *Die unbekante Neue Welt, oder Beschreibung des Welt-Teils Amerika, und des Sud-Landes: darinnen vom Ursprunge der Ameriker und Sudländer, und von den gedencwürdigen Reysen der Europen darnach zu. Wie auch von derselben festen Ländern, Inseln, Städten, Festungen, Dörfern, vornähmsten Gebeuen, Bergen, Brunnen, Flüssen, und Ahrten der Tiere, Beume, Stauden, und anderer fremden Gewächse; als auch von den Gottes- und Götzendiensten, Sitten, Sprachen, Kleider-trachten, wunderlichen Begäbnissen und so wohl alten als neuen Kriegen, ausführlich gehandelt wird; durch und durch mit vielen nach dem Leben in Ameriken selbst entworfenen Abbildungen gezieret.*

Amsterdam, J. von Meurs, 658 + 11. Illus.

—Transl. by Olfert Dapper of a Dutch ed., 1671. Sirs., 219. See also J. Ogilby (1671).

Monteiro, Joachim John

1875. *Angola and the River Congo.*

London, Macmillan & Co. (2 vols.), Vol. 2: iv + 340.

—Sirs., 17.

Montgomery, G. Gene: SEE ALSO Best et al., 1981; Schad et al., 1981.

x Montgomery, G. Gene; Best, Robin Christopher; & Yamakoshi, Megumi

1981. A radio-tracking study of the Amazonian manatee *Trichechus inunguis* (Mammalia: Sirenia).

Biotropica, 13(2): 81–85. 1 tab. 1 fig. Jun. 1981.

—Describes the freeze-branding and radiotagging of a juvenile manatee, its release in a lake near the Rio Solimões, Brazil, and its movements and habitat use during 20 days of radiotracking. Concludes that radiotracking is a practical means of studying manatee ecology in the Amazon Basin. Includes a list of plants thought to be eaten by manatees in the study area. For a slightly expanded Portuguese version of this paper, with illustrations of the tagging equipment, see Best, Montgomery, & Yamakoshi (1981).

x Montgomery, G. Gene; Gale, N.B.; & Murdoch, W.P., Jr.

1982. Have manatee entered the eastern Pacific Ocean? *Mammalia*, 46(2): 257–258. 1 fig.

—Reports that *T. manatus*, originally introduced into the Panama Canal in 1963 (see MacLaren, 1967), have increased in numbers to about 25 and have been seen in Miraflores Lake, only one lock away from the Pacific; hence if they have not

entered the Pacific yet, they soon could.

- Moore, David R.
1971. *The traditional culture and prehistory of Cape York, North Queensland*. Sydney, 1–10.
–Mentions dugong hunting and the construction of mounds of dugong and turtle bones on high points as lookouts for the animals.
- Moore, David R.
1979. *Islanders and Aborigines at Cape York: an ethnographic reconstruction based on the 1848–1850 'Rattlesnake' journals of O. W. Brierly and information he obtained from Barbara Thompson*. Canberra, Australian Institute of Aboriginal Studies (AIAS New Ser. No. 3), xii + 340. Frontisp. 11 figs. 15 pls. 5 maps.
- Moore, John F.: SEE O'Shea et al., 1984.
- x Moore, Joseph Curtis
1946. Mammals from Welaka, Putnam County, Florida. *Jour. Mamm.*, 27(1): 49–59. "Feb. 1946" (mailed Mar. 14, 1946).
–Reports sightings of manatees in the St. Johns River, including an observation of possible mating behavior (58).
- x Moore, Joseph Curtis
1951a. The range of the Florida manatee. *Quart. Jour. Florida Acad. Sci.*, 14(1): 1–19. 1 tab. 1 fig. "Mar. 1951" (mailed Aug. 8, 1951).
–Presents data from interviews and sightings, showing that manatee winter range in Florida lies south of the Sebastian River (east coast) and Charlotte Harbor (west coast); that many manatees migrate north in summer but seldom leave Florida; and that they use springs as natural warm-water refuges. Discusses the osteological basis for distinguishing *Trichechus m. manatus* and *T. m. latirostris*, concludes that Texan manatees represent the former, and suggests that the northern Gulf Coast acts as a barrier separating the two subspecies.
- x Moore, Joseph Curtis
1951b. The status of the manatee in the Everglades National Park, with notes on its natural history. *Jour. Mamm.*, 32(1): 22–36. 2 tabs. 1 fig. Feb. 15, 1951.
–Includes notes on habitat, reproduction, respiration, behavior, body size and measurements, intelligence, food, and effects of cold. Gives further details of the captive birth recorded by Barbour, 1937 (26).
- x Moore, Joseph Curtis
1953. Distribution of marine mammals to Florida waters. *Amer. Midland Naturalist*, 49(1): 117–158. 19 figs. Jan. 1953.
–Reports (for the first time?) aggregations of manatees during cold snaps (120–121, 156); records sightings of calves in all months except December (121–122). Manatees also mentioned in key to marine mammals, 153.
- Moore, Joseph Curtis
1954. Want to see a Florida manatee? *Animal Kingdom*, 54 [or 57?] (1): 11–13. 1 fig. Jan. 1954.
- x Moore, Joseph Curtis
1956. Observations of manatees in aggregations. *Amer. Mus. Novit.*, No. 1811: 1–24. 5 figs. Dec. 23, 1956.
–Reports the first detailed observations of wild manatees, based on studies of the population in the Miami River, Florida, 1949–1955, using scars from boat collisions and other naturally-occurring marks to identify individuals. Includes some records of numbers of manatees observed, observations on relationship of aggregations to temperature, attendance records of manatees at aggregations, and behavioral observations regarding play, greeting, courtship, reproduction, behavior of young, suckling posture, and locomotion.
- x Moore, Joseph Curtis
1957. Newborn young of a captive manatee. *Jour. Mamm.*, 38(1): 137–138. Feb. 25, 1957.
–Reports on a Florida manatee calf born in 1955 at Ojus, Florida, and compares its behavior to observations in earlier reports.
- x Moore, Joseph Curtis
1961. Sailors' siren. *Nat. Hist. (New York)*, 70(1): 54–55. 2 figs. Jan. 1961.
–Pop. acc. of dugongs, with two photos of African specimens in captivity at Mombasa, Kenya.
- x Moore, Joseph Curtis
1964. A mysterious encounter. *Chicago Nat. Hist. Mus. Bull.*, 35(11): 7–8. 1 fig. + cover photo. Nov. 1964.
–Pop. acc. of observations of a manatee with its tail badly mangled by a boat propeller, and other scarred individuals, in the Miami River, Florida.
- Moore, R.J.; & Balzarotti, M.A.
1976. *Report of 1976 expedition to the Suakin Archipelago (Sudan)*. Privately published.
- x Moore, W. Robert
1936. Beyond Australia's cities. *Natl. Geogr. Mag.*, 70(6): 709–747. Illus. Dec. 1936.
–Photograph of a captured Queensland dugong (746); the caption comments on local economic uses of the animal.

- x Moraes, Raymundo
1931. *O meu dicionario de cousas da Amazonia*. Vol. 2. Rio de Janeiro, Abba, 1–206.
–Includes a note on the manufacture of mixira (fried meat preserved in manatee fat) in the Brazilian Amazon (67).
- x Moraes, Raymundo
1939a. *Na planície amazônica*. Ed. 5. São Paulo, Cia. Editora Nacional (Bibliotheca Pedagogica Brasileira, Série 5, Vol. 63), xx + 227.
–Ed. 6: Rio de Janeiro, Conquista, 1968. Notes the export of manatee meat from Gurupá, Brazil, in the 17th century, and the former occurrence of manatees south of Marajó and in the lower Rio Tocantins (91–92).
- Moraes, Raymundo (= Morais, Raimundo)
1939b. *O homem do Pacoval*. São Paulo, Cia. Melhoramentos de São Paulo, 1–297.
–Manatee, 190–193.
- x Morais Rêgo, Aurora Ramos de
1944. O peixe-boi. *Rev. Mus. Nac.* (Rio de Janeiro), 1(2): 10–12. 2 figs. Dec. 1944.
–Pop. acc. of Amazonian manatees, including information on their natural history (inaccurate), economic use, and hunting, with a photo of hunters using a barricade of stakes. Recommends the commercial raising of manatees.
- x Morales, Patricia
1986. The life and death of an Amazon manatee. *Proc. Internatl. Assoc. Aquatic Animal Medicine* (17th Annual Conference, Biloxi, Mississippi), 1(3): 43–48. 2 tabs. May 1986.
–Describes the captive medical care, diet, and necropsy findings in “Butterball,” the *T. inunguis* that lived at San Francisco’s Steinhart Aquarium, 1967–1984. In addition to skin and bone damage from a harpoon wound and skin lesions possibly due to nutritional deficiencies, the main findings were pyogranulomatous pneumonia, cirrhosis, testicular necrosis, and other effects of infection by *Mycobacterium marinum*. Cause of death was cardiac failure associated with the pneumonia.
- x Morales, Patricia; Madin, Stewart H.; & Hunter, Aline
1985. Systemic *Mycobacterium marinum* infection in an Amazon manatee. *Jour. Amer. Veter. Med. Assoc.*, 187(11): 1230–1231. Dec. 1, 1985.
–An abbreviated version of Morales (1986). Describes the illness, death, and necropsy of the Steinhart Aquarium’s manatee.
- Morales Vela, Benjamín; & Olivera Gómez, León David
1991. Mamíferos acuáticos. In: T. Camarena-Luhrs & S. Salazar-Vallejo (eds.), *Estudios ecológicos preliminares de la zona sur de Quintana Roo*. Chetumal (Mexico), Centro de Investigaciones de Quintana Roo, 172–185. Figs. 27–29. Sep. 1991.
- Morales Vela, Benjamín; & Olivera Gómez, León David
1992. *De sirenas a manatíes*. Chetumal (Mexico), Centro de Investigaciones de Quintana Roo (Cuaderno de Divulgación 4), 1–30. 17 figs. Nov. 1992.
- Moreau, Laurent J.
1900. L’extinction des espèces animales. *Bull. Soc. Zool. France*, 25: 109–117.
–Sirs., 109.
- Moreira, G.R.S.: SEE Colares et al., 1987.
- Morel, G.: SEE Bourlière et al., 1976.
- Morera, Ramón Jordana y: SEE Jordana y Morera, Ramón.
- Morgan, Gary Scott: SEE ALSO Domning, Morgan, & Ray, 1982; Hulbert & Morgan, 1989.
- x Morgan, Gary Scott
1989. Miocene vertebrate faunas from the Suwannee River basin of north Florida and south Georgia. In: G.S. Morgan (ed.), *Miocene paleontology and stratigraphy of the Suwannee River basin of north Florida and south Georgia*. *Southeastern Geol. Soc. Guidebook*, No. 30: 26–53. 2 tabs. 3 figs. Oct. 7, 1989.
–Describes the stratigraphic context, associated faunas, age, and paleoecology of specimens of *Halitherium olseni*, *Dioplotherium manigaulti*, and *Metaxytherium* sp. from the Suwannee River basin. See also Domning (1989b).
- D Morgan, Gary Scott
1994. Miocene and Pliocene marine mammal faunas from the Bone Valley Formation of central Florida. In: A. Berta and T.A. Deméré (eds.), *Contributions in marine mammal paleontology honoring Frank C. Whitmore, Jr.* *Proc. San Diego Soc. Nat. Hist.*, 29: 239–268. 2 tabs. 13 figs. May 1, 1994.
–Reviews the occurrences of Neogene sirs. throughout Florida, and debunks the report of *Desmostylus* in the state.
- x Morgan, Gary Scott; & Pratt, Ann E.
1983. Recent discoveries of Late Tertiary marine mammals in Florida. *The Plaster Jacket* (Florida State Museum), No. 43: 4–30. 15 figs. Sep. 1983.
–Describes the discovery of an Early Miocene *Metaxytherium* skeleton in the Suwannee River in Jun. 1982 (4, 16–23), and other discoveries of sir. fossils (24–25).

Morgan, Margaret A.: SEE ALSO Kadel, Morgan, & Patton, 1991.

Morgan, Margaret A.; & Patton, Geoffrey W.

1990. Aerial studies of the West Indian manatee (*Trichechus manatus*) on the west coast of Florida. *Mote Mar. Lab. Tech. Rept.*, No. 167: iv + 21 + [53]. 2 tabs. 23 figs. Mar. 28, 1990.

Mori, G.: SEE Fujii & Mori, 1964.

Mori, T.: SEE Asano et al., 1978.

Moriceau

1902. Pêche de dugongs d'Ambanja. *Revue Madagascar* (Paris), 1902: 538-539.

x Morison, Samuel Eliot

1942. *Admiral of the Ocean Sea: a life of Christopher Columbus*. Boston, Little, Brown & Co., xx + 680. Illus. Feb. 1942.

—Also publ. simultaneously in a 2-vol. ed. that includes notes and other material (vol. 1: xlv + 448; vol. 2: vii + 445). Describes Columbus' sighting of "mermaids" off the coast of Haiti on his first voyage in 1493 (309-310); describes the use of remoras to catch manatees and turtles on the southern coast of Cuba in 1494 (457); states that "swarms of manatee are attracted to quench their thirst" at freshwater springs in the Gulf of Cochinos, Cuba, visited in 1494 (459); and mentions a manatee caught in 1502 at Azua, Dominican Republic, "which Ferdinand [Columbus] was clever enough to identify as a mammal, not a fish" (592). The description of a "sea monster" seen near Hispaniola in 1494 (478) may also refer to a manatee. In the 2-vol. ed. the identical statements are found on the following pages, respectively: 1: 397-398; 2: 131, 134, 327, 158.

The above information on Columbus's voyages is based on Columbus's own journal of the first voyage (which survives only in the form of an abstract and paraphrase by Bartolomé de Las Casas and which has appeared in various editions and translations) and on other documents, many of which Morison published in new translations in 1963 (q.v.).

Morison, Samuel Eliot

1963. *Journals and other documents on the life and voyages of Christopher Columbus*.

New York, Limited Editions Club, xv + 417. Illus. —Includes new transls. of, among other documents: the *Diario*, the Las Casas abstract of Columbus's journal of the first voyage, 1492-1493 (41-179); Syllacio's letter to the Duke of Milan describing the second voyage, 1493-1496 (229-245); and Ferdinand Columbus's account of

the fourth voyage, 1502-1504 (321-370). Manatees, 84, 148, 243, 245, 325, 328.

P. 84: "He [Columbus] ... says that they must have cows in it [Cuba] and other cattle, for he saw skulls which appeared to be those of cows." Las Casas suggested that these were manatees.

P. 148: "The day before, when the Admiral went to the Rio del Oro [on the north coast of the Dominican Republic] he said that he saw three mermaids who rose very high from the sea, but they were not as beautiful as they are painted, although to some extent they have a human appearance in the face. He said that he had seen some in Guinea on the coast of Malagueta." This latter observation, made on the Grain Coast (Liberia) probably between 1482 and 1484 (Morison, 1942: 42), may well have been the earliest recorded European observation of an African or any other manatee.

P. 243: "Huge fish as large as cattle are caught here [near Isabela, on the north coast of the Dominican Republic]; they are eaten avidly (after their legs have been removed) and have the taste of veal." A note on p. 245 presumes these to have been manatees.

P. 325 (chap. 89 of Ferdinand Columbus's *Historie*): "The other fish was taken [near Azua, Dominican Republic] through another device; the Indians call it the *manati*, and there are none of that kind in Europe. It is as big as a calf, resembling one both in color and flavor, except that perhaps it is somewhat better and fatter. Therefore, those who declare that there are in the sea all sorts of creatures which live on land, say that these fishes are real calves, since inside they are nothing like a fish, and feed only on the grass they find along shore." Ferdinand accordingly deserves credit for realizing that the manatee is a mammal.

Mornand, J.: SEE Ginsburg et al., 1979.

Morris, John G.: SEE Silverberg & Morris, 1988; Steel & Morris, 1982.

Morris, William J.

1983. A paleontologic reconnaissance of Baja California, Mexico, 1974.

Natl. Geogr. Soc. Res. Rept., 15: 157-174. Illus.

Morrison-Scott, T.C.S.: SEE Ellerman & Morrison-Scott, 1951; Ellerman et al., 1953.

Morrissey, Janice: SEE Channells & Morrissey, 1981; Marsh et al., 1979, 1982.

x Morse, Douglass H.

1975. Ecological aspects of adaptive radiation in birds. *Biol. Rev.*, 50: 167-214.

—Suggests that manatees and turtles in tropical

waters are "at least a fortuitous ecological replacement" of herbivorous aquatic birds in temperate regions (173).

- Mortensen, Th.
1933a. On the "manatee" of St. Helena.
Vidensk. Medd. Dansk Naturhist. Forening (Copenhagen), 97: 1-9. 2 figs.
- x Mortensen, Th.
1933b. On the "solitaire" of the island of Rodriguez.
Ardea, 22(1-2): 21-29. 4 figs. 2 pls. Jul. 1933.
-Concludes (23-26) that Leguat's *Voyages et aventures* was based on actual experiences, though embellished with fictitious additions, including the account of sea cows at Rodriguez. Reproduces Leguat's illustration of a quadrupedal "Vache Marine" (fig. 3).
- x Mortensen, Th.
1934a. The "manatee" of St. Helena.
Nature (London), 133: 417. Mar. 17, 1934.
-Quotes Dampier's (1703-1705) observations to demonstrate that the "manatee" was actually a sea lion (*Arctocephalus*).
- x Mortensen, Th.
1934b. On François Leguat and his "Voyage et Aventures," with remarks on the dugong of Rodriguez and on *Leguatia gigantea* Schlegel.
Ardea, 23(1-2): 67-77. 3 figs. Jun. 1934.
-Concludes (71-72, 76) that Leguat's account is not fictitious and that its zoological data were based on actual observations, probably including observations of the dugong. Reproduces Leguat's illustration of a "Lamentin" (fig. 1).
- x Morton, B.S.
1974. Is it a dugong or a porpoise?
Malayan Nature Jour., 27(3-4): 172. Jun. 1974.
-Suggests that the animal seen in Johore Strait by Bland (1970) was *Neophocaena*, not *Dugong*.
- Mosbach, E.H.: SEE Kuroki et al., 1988.
- Moses, S.T.
1942. The fisheries of the Gujarat coast.
Jour. Gujarat Res. Soc., 4(2): 61-82.
-Dugong, 75.
- Mosgovoy, A.A.
1950. [Ascaridata of animals.]
Trudy Helmitol. Lab. Akad. Nauk SSSR, 4: 263-269.
-In Russian. Refers *Typhlophorus hagenbecki* to *Plicatolabia*.
- x Mossman, H.W.
1987. *Vertebrate fetal membranes*.
New Brunswick (New Jersey), Rutgers Univ. Press.
-Gen. acc. of dugong and manatee fetal membranes, based on previous literature (267-270).
- Mossman, H.W.; & Duke, K.L.
1973. *Comparative morphology of the mammalian ovary*.
Madison, Univ. Wisconsin Press, 1-461.
-Describes a mutilated ovary of *T. inunguis* (381).
- Mottl, Mária von (= Györfly-Mottl, Maria)
1944. Egy új trichechoid sirena-lelet Üröm felső eocén-jéből. (Ein neuer, trichechoider Sirenenfund aus dem Obereozän von Üröm in Budapest.)
Földt. Intézet, Évkön.: 171-205. 1 tab. 21 figs.
-Text in Hungarian (173-185) and German (186-203). According to L. Kordos (pers. comm.), this paper was typeset but, on account of the war, was never published, and exists in proofsheets only. Describes vertebrae, ribs, and a scapula from the Late Eocene of Hungary and compares them with other sirs.; the comparisons of the scapulae are particularly detailed. Concludes that the specimens from Üröm are probably referable to *Sirenavus*.
- Mou Sue, Luis L.; Chen, David H.; Bonde, Robert K.; & O'Shea, Thomas J.
1990. Distribution and status of manatees (*Trichechus manatus*) in Panama.
Mar. Mamm. Sci., 6(3): 234-241. 1 tab. 1 fig. Jul. 1990.
- Mountford, Charles P.
1956. *Records of the American-Australian scientific expedition to Arnhem Land. 1. Art, myth and symbolism*.
Melbourne, Melbourne Univ. Press, xxx + 513. 68 figs. 157 pls. 2 color pls.
- Mountford, Charles P.
1964. The art of Arnhem Land. In: R.M. Berndt (ed.), *Australian Aboriginal art*.
Sydney, Ure Smith, 20-32.
-Dugong, 25.
- Moustafa, Y. Shawki
1974. Critical observations on the occurrence of Fayum fossil vertebrates.
Ann. Geol. Surv. Egypt, 4: 41-78. 11 figs.
-Discusses Fayum stratigraphy and depositional environments, and the occurrence of partly articulated skeletons of *Eotheroides libyca* [sic] (49, 50, 52, 60, 72).
- Moynihan, Ann C.: SEE Medway, Dodds et al., 1982.
- Mozgovoy, A.A.: SEE Skrjabin et al., 1951.
- Mudaliyar, C.: SEE Rasanayagam & Mudaliyar, 1926.
- Müller, Arnold
1983. Fauna und Palökologie des marinen Mitteloligozäns der Leipziger Tieflandsbucht (Böhlerer Schichten).
Altenburger Natw. Forsch., 2: 1-152. Figs. Pls.
-Engl. summ.

Müller, Gerhard Friedrich

1758. Nachrichten von Seereisen, und zur See gemachten Entdeckungen, die von Russland aus längsten Küsten des Eissmeeres und auf dem Ostlichen Weltmeere gegen Japon und Amerika geschen sind.... In: *Müller's Sammlung Russischer Geschichte*.

St. Petersburg, Kayserl. Akad. Wiss. (9 vols., 1732–1764), Vol. 3 (Parts 1–3): 1–304.

–Engl. transl.: Müller (1761). French transl.: Amsterdam, 2 vols., 1766. Danish transl.: Copenhagen, 1784. Account of *Rhytina*, based on Waxell's information, 251–259.

Müller, Gerhard Friedrich ("S. Muller")

1761. *Voyages from Asia to America, for completing the discoveries of the north west coast of America. To which is prefixed, a summary of the voyages made by the Russians on the Frozen Sea, in search of a north east passage. Serving as an explanation of a map of the Russian discoveries, published by the Academy of Sciences at Petersburg. Translated from the High Dutch of S. [i.e., G.] Muller, of the Royal Academy of Petersburg.... By Thomas Jefferys....*

London, T. Jefferys, viii + xliii + 76. Frontisp. 3 maps.

–Edited transl. of Müller (1758). Sea-cow, 60–62.

Müller, Otto

1898. Untersuchungen über die Veränderungen, welche die Respirationsorgane der Säugetiere durch die Anpassung an das Leben im Wasser erlitten haben.

Jena. Zs. Natw., 32: 95–230. Pls. 3–6.

x Müller, Philipp Ludwig Statius

1773. *Des Ritters Carl von Linné ... vollständiges Natursystem nach der zwölften lateinischen Ausgabe und nach Anleitung des holländischen Houttuynischen Werks mit einer ausführlichen Erklärung.... Erster Theil. Von den säugenden Thieren....*

Nuremberg, Gabriel Nicolaus Raspe, [20] + 508 + [17]. Frontisp. 32 pls.

–Allen 323. Gen. acc. of "*Trichecus Manatus*" (which here includes the dugong), based on earlier writers (174–176; pl. 29, after Clusius). Also lists vernacular names of manatees and dugongs in various languages.

x Müller, Philipp Ludwig Statius

1776. *Des Ritters Carl von Linné ... vollständigen Natursystems Supplements- und Register-Band über alle sechs Theile oder Classen des Thierreichs. Mit einer ausführlichen Erklärung....*

Nuremberg, Gabriel Nicolaus Raspe, 1–384. 3 pls.

–A sketchy account of the dugong based on previous writers, which bestows a Linnaean name (*Trichecus* [sic] *Dugon*) on the species for the first time (21–22). A somewhat overgenerous geographic range is attributed to the animal, extending from the Cape of Good Hope and the Philippine Islands to the Strait of Magellan and the South Pole! For the probable source of the Cape of Good Hope "record," see D. Beeckman (1812).

x Müllerried, Federico K.G.

1932. Primer hallazgo de un sirénido fósil en la República Mexicana.

An. Inst. Biol. Univ. Nac. México, 3(1): 71–73. 2 figs.

–Reports sir. rib fragments from Chiapas, Mexico, said to be Oligocene in age although they were associated with Eocene fossils.

x Muizon, Christian de

1984. Les vertébrés fossiles de la Formation Pisco (Pérou). Deuxième partie: Les odontocètes (Cetacea, Mammalia) du Pliocène inférieur de Sud-Sacaco.

Inst. Franç. d'Études Andines, Mém., No. 50: 1–183. 98 figs. 17 pls.

–Notes the presence of *Metaxytherium calvertense* in Peru as evidence of a northwest Atlantic-southeast Pacific axis of faunal distribution, and discusses other evidence supporting Domning's postulated ecological barrier between the north-east and southeast Pacific (171).

x Muizon, Christian de; & De Vries, T.J.

1985. Geology and paleontology of late Cenozoic marine deposits in the Sacaco area (Peru).

Geol. Rundschau, 74(3): 547–563. 1 tab. 4 figs. 2 pls. Dec. 1985.

–Mentions sirs. from the Sacaco and Montera Formations, and faunal similarities to eastern North America (560).

x Muizon, Christian de; & Domning, Daryl Paul

1985. The first records of fossil sirenians in the southeastern Pacific Ocean.

Bull. Mus. Natl. Hist. Nat. (Paris), (4)7, Sect. C, no. 3: 189–213. 2 tabs. 14 figs.

–French & Spanish summs. Reports skulls of *Metaxytherium calvertense* from the Early to Middle Miocene Montera Formation (190–206), and a rib of an undescribed dugongid from the Early Pliocene Pisco Formation (206–209), Peru. Compares these specimens with other sirs., and discusses (209–211) their biogeographic and phylogenetic implications.

Mukhametov, L.M.: SEE ALSO Galantsev & Mukhametov, 1984; Sokolov & Mukhametov, 1982.

- Mukhametov, L.M.; & Galantsev, V.P.
1986. [Investigation of certain physiological features of the manatee.] In: V.E. Sokolov (ed.), *Lamantin: morfologicheskie adaptatsii* (q.v.). Moscow, "Nauka" (Akad. Nauk SSSR) (405 pp.), 377-384.
-In Russian.
- Mukhametov, L.M.; Lyamin, O.I.; Chetyrbok, I.S.; Vasilyev, A.A.; & Pezo Diaz, Roberto
1992. Sleep in an Amazonian manatee. *Experientia* (Basel), 48(4): 417-419.
- Muku, Tatsunori: SEE Tabuchi et al., 1974.
- Mulholland, Rosemarie: SEE Packard & Mulholland, 1983.
- Mummery, John Howard
1924. *The microscopic & general anatomy of the teeth, human and comparative*. Ed. 2. London, H. Milford (Oxford Medical Pubs.), xvi + 618. Tabs. Figs. 41 pls.
- Mundkur, Taej: SEE Frazier & Mundkur, 1991.
- Muntz, W.R.A.: SEE Piggins et al., 1983.
- Murai, Takefumi: SEE Inuzuka & Murai, 1980.
- Murdoch, W.P., Jr.: SEE Montgomery et al., 1982.
- x Murie, Adolph
1935. Mammals from Guatemala and British Honduras. *Misc. Pubs. Mus. Zool. Univ. Michigan*, 26: 1-30. Jul. 15, 1935.
-P. 30: {"*Trichechus manatus* Linnaeus / Manatee / On a key about one-half mile from Belize, I picked up a number of water-worn manatee bones. This key is said to have been formerly used for preparing manatees for market. The market master at Belize informed me that, although at one time they were often brought to market, of late only one or two are received during a year. A few manatees are said to occur in the Belize River."}
- x Murie, James
1872a. On the form and structure of the manatee (*Manatus americanus*). *Trans. Zool. Soc. London*, 8(3): 127-202. Pls. 17-26. Sep. 1872 (read Nov. 15, 1870).
-Notice: *Proc. Zool. Soc. London*, 1870(3): 747-748, Apr. 1871. The outstanding nineteenth-century work on sirenian gross anatomy, still valuable for the detail of the illustrations as well as the anatomical descriptions. The colored plates are reproduced in black and white in Ronald et al. (1978).
Describes in detail the external and internal anatomy of a female *T. m. manatus* from Puerto Rico and a male from Suriname (127-189). Discusses the relationships of sirs., concluding that they lie somewhere between cetaceans and proboscideans (189-191). Finally, describes the provenance of his two specimens and the efforts made to bring them alive to England, concluding with recommendations for care of captive animals to be followed in future attempts of this nature (191-193).
- Murie, James
1872b. On the skin &c. of the *Rhytina*, suggested by a recent paper of Dr. A. Brandt's. *Ann. Mag. Nat. Hist.*, (4)9(52): 306-313. Pl. 19. Apr. 1872.
-Discusses A. Brandt (1871a).
- Murie, James
1874. [Title?] *Proc. Geol. Soc. London*, Nov. 18, 1874.
- Murie, James
1879. Cause of death of the manatee at Westminster Aquarium. *Field*, 53(1373): 442. Apr. 19, 1879.
-Repr. in Murie (1880: 23-24).
- x Murie, James
1880. Further observations on the manatee. *Trans. Zool. Soc. London*, 11(2): 19-48. Pls. 5-9. Aug. 1880 (read Jun. 17, 1879).
-Notice: *Proc. Zool. Soc. London*, 1879(3): 552, Oct. 1879. A sequel to Murie (1872a), giving additional anatomical details based on the dissection of another manatee, which had recently died in the Westminster Aquarium. Reviews recent literature on manatees (19-21); describes the captive history, behavior, and death of the female *T. m. manatus* brought to London from British Guiana (21-26), its external anatomy and measurements (27-32), including structure and movements of the lips; gives addenda on myology (32-35) and the nervous system (35-44), emphasizing the cervical nerves and brain. The plates include drawings from life of the animal in different postures (pls. 5-7), details of muscles and nerves (pl. 8), and views of the brain and cranial arteries (pl. 9).
The above-cited notice in *Proc. Zool. Soc.* (for Jun. 17, 1879) is immediately followed by this related notice on p. 552: {"Mr. F. D. Godman exhibited and made remarks on a drawing of the Manatee by Mr. Wolf, taken from the specimen lately living in the Westminster Aquarium."}
- x Murie, Olaus Johan
1937. Notes on the mammals of St. Lawrence Island, Alaska. In: O.W. Geist & F.G. Rainey (eds.), *Archaeological excavations at Kukulik, St. Lawrence Island, Alaska*. *Univ. Alaska Misc. Publ.*, No. 2, Appendix 3: 335-346. 3 figs.
-P. 345: {"Family TRICHECHIDAE, Manatees / *Rhytina gigas*, Steller's Sea cow. / Mr. [Otto

William] Geist reports that the Eskimo "talk about a 'real walrus' obtained in olden days, *without tusks*." This would indicate the Steller's sea cow and is most interesting information. However, no bones have been obtained as yet. This Eskimo tradition may, of course, have come originally from some other locality, yet it deserves special attention in future work on the island.")

Murie, Olaus Johan

1959. Fauna of the Aleutian Islands and Alaska Peninsula.

North American Fauna (U.S. Fish & Wildl. Serv.), No. 61: xiv + 364.

—Steller's sea cow, 332–333.

Murphy, C.J.: SEE West et al., 1991.

Murphy, Mary Jane T.

1983. Manatee talk.

Omni, 5: 45. Sep. 1983.

Murray, Andrew

1866. *The geographical distribution of mammals*.

London, Day & Son, Ltd., xvi + 420. 2 pls. 101 maps.

x Murray, R.M.

1981. The importance of VFA in dugong nutrition. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.).

[Townsville (Australia)], James Cook Univ. (vii + 400), 166–168.

—Discusses the production of volatile fatty acids in the dugong's intestine, and calculates that they

could provide some 25% of the dugong's digestible energy intake.

x Murray, R.M.; Marsh, Helene D.; Heinsohn, George Edwin; & Spain, Alister V.

1977. The role of the midgut caecum and large intestine in the digestion of sea grasses by the dugong (Mammalia: Sirenia).

Compar. Biochem. Physiol., 56A: 7–10. 2 tabs.

—Reports on the analysis of gut contents for plant species, apparent digestibilities, and volatile fatty acids; the blood was analyzed for phosphorus and urea. Digestion was found to occur principally in the hindgut.

Mustafa, Muslimin: SEE Whitten et al., 1987.

x Myers, H.M.; & Myers, P.V.N.

1871. *Life and nature under the tropics*.

New York, D. Appleton & Co., xvi + 358.

—Brief account of the Orinoco manatee, its uses by the natives (102), and their methods of hunting it (103).

Myrick, Albert C., Jr.: SEE ALSO Domning & Myrick, 1980.

Myrick, Albert C., Jr.

1984. Time significance of layering in some mammalian hard tissues and its application in population studies.

Acta Zool. Fennica, No. 171: 217–220.

Myroniuk, P.

1988. A survey of mammals on Hinchinbrook Island, north Queensland.

Austral. Zool., 25(1): 6–10. Illus.

N

x N. [Godefroy Loyer?]

1719. *Voyages aux côtes de Guinée & en Amerique. Par Mr. N***.*

Amsterdam, aux depens d'Etienne Roger, 1-416. Frontisp. 38 pls.

—An extremely rare work. The copy I examined (in the library of the Instituto Nacional de Pesquisas da Amazônia, Manaus, Brazil) was accompanied by an excerpt from the catalog of an anonymous bookseller, who felt convinced after considerable research that the author was the Dominican priest Godefroy Loyer (born 1660 or 1666, died 1715). Loyer wrote a *Relation du Royaume d'Issyny, Côte-d'Or, Pais de Guinée, avec ce qui s'y passé ... dans l'établissement que les François y ont fait ...* (Paris, 1714). I have not seen the latter, but the bookseller states that it is remarkably similar in content to the 1719 Amsterdam work, and he suggests that the latter was a version of Loyer's book adapted for a Protestant rather than Catholic audience, perhaps actually printed in France and sold in Amsterdam by Roger with his own title-page.

Half the book is devoted to West Africa (Ghana, Gambia, Senegal, etc.) and the rest to the West Indies (Martinique, Cayenne, and St. Domingue). The following account of the (African?) manatee is on p. 70:

["Il y a plusieurs autres sortes de Poissons le *Requiem*, le *Lamantin*, la *Bécasse de Mer*, la *Bécune*.

"Je parlerai du *Requiem* dans la suite, pour le *Lamantin* c'est un monstre marin, qui a la tête fort semblable à celle d'une vache; ce poisson monstrueux est fort bon à manger. Il vient d'une grandeur & d'une grosseur prodigieuse, la femelle met ses petits dehors à la façon des vaches, & elles ont d'eux tetines avec lesquelles elles les allaitent; elles les portent entre deux petits bras qu'elles ont, comme vous le pouvez voir dans la Figure."]

The plate facing p. 69 (labeled "Page 70") is redrawn and reversed from that in C. de Rochefort (1667 and earlier eds.).

N.N.

1655. *America: or an exact description of the West Indies: more especially of those provinces which are under the dominion of the King of Spain.*

London, printed by Ric. Hodgkinsonne for Edw. Dod, 1-484. 1 map.

—Allen 78. Account of the Manati or Oxe-fish, based mainly on Hernandez and Laet (154-155).

Nabor, Peter; & Patton, Geoffrey W.

1988. Manatee aerial survey program 1987 final report: studies of the West Indian manatee, Anna Maria to northern Charlotte Harbor and the Myakka River. *Mote Mar. Lab. Tech. Rept.*, No. 127: v + 45 + 14. 13 tabs. 17 figs. + 14 figs. in appendix. Jul. 5, 1988.

Nabor, Peter; & Patton, Geoffrey W.

1989. Aerial studies of the West Indian manatee (*Trichechus manatus*) from Anna Maria Florida to northern Charlotte Harbor including the Myakka River: recommended habitat protection and manatee management strategies. *Mote Marine Lab. Tech. Rept.*, No. 134: iv + 94. 9 tabs. 28 figs. Jan. 31, 1989.

Nachtigal, Gustav

1881. *Sāharā und Sūdān. Ergebnisse sechsjähriger Reisen in Afrika.*

Berlin, Weidmann (2 vols., 1879-1881), Vol. 2: xxiv + 790.

—Sirs., 670.

D Nagao, Takumi

1935a. On the teeth of *Desmostylus*. *Jour. Geol. Soc. Japan*, 42(505): 605-614. 2 pls. Oct. 20, 1935.

—In Japanese.

D Nagao, Takumi

1935b. *Desmostylus mirabilis* sp. nov. from Keton in Saghalin.

Jour. Geol. Soc. Japan, 42(507): 822-824. Dec. 20, 1935.

—In Japanese; Engl. summ.

xD Nagao, Takumi

1937a. A new species of *Desmostylus* from Japanese Saghalien and its geological significance.

Proc. Imper. Acad. Tokyo, 13(2): 46-49. 3 figs. Feb. 1937.

—Abstr.: *Jap. Jour. Geol. Geogr.*, 14(3/4): abstr.-page 58, Oct. 1937. Describes *Desmostylus minor* from the Lower Miocene of Sakhalin.

xD Nagao, Takumi

1937b. *Desmostylella*, a new genus of Desmostylidae from Japan.

- Proc. Imper. Acad. Tokyo*, 13(3): 82–85. 4 figs. Mar. 1937.
 –Abstr.: *Jap. Jour. Geol. Geogr.*, 14(3/4): abstr.-page 58–59, Oct. 1937. Describes *Desmostylella typica*, n.gen.n.sp., from the Miocene of Honshu.
- x D Nagao, Takumi
 1937c. A new occurrence of a small *Desmostylus* tooth in Hokkaidô.
Proc. Imper. Acad. Tokyo, 13(4): 110–113. 9 figs. Apr. 1937.
 –Abstr.: *Jap. Jour. Geol. Geogr.*, 14(3/4): abstr.-page 59, Oct. 1937. Describes a specimen of uncertain age that he refers to *Desmostylus minor*.
- D Nagao, Takumi
 1937d. Classification and geological distribution of the Desmostylidae.
Jour. Geol. Soc. Japan, 44(525): 533–534.
 –Abstr.: *Jap. Jour. Geol. Geogr.*, 14(3/4): abstr.-page 59, Oct. 1937.
- D Nagao, Takumi
 1941. On the skeleton of *Desmostylus*.
Mem. Lect. Prof. Yabe, 1941: 43–52.
 –In Japanese; Engl. summ.
- D Nagao, Takumi; & Oishi, Saburo
 1934. Newly discovered *Desmostylus* remains in the frontier district of south Sakhalin.
Jour. Geogr. (Tokyo), 46(541): 103–111. 1 map. Mar. 1934.
- D Nagao, Takumi; & Oishi, Saburo
 1935. Geographical distribution of *Desmostylus*.
Jour. Geol. Soc. Japan, 42(497): 74–81. Feb. 20, 1935.
 –In Japanese.
- Nagelschmid, F.
 1979. Seekühe. Die lustigen Dickerchen.
Tauchen, 2(11): 56–59. Illus.
- Nahke, P.
 1986. Sirenen in Not.
Tauchen, 9(9): 27–31. Illus.
- Naiff, R.D.: SEE Lainson et al., 1983.
- x Nair, R.V.; & Lal Mohan, R.S.
 1977. Studies on the vocalisation of the sea cow *Dugong dugon* in captivity.
Indian Jour. Fish., 22(1/2): 277–278. 1 tab. Aug. 1977.
 –Sound recordings in air showed “chirp-squeaks” from 3 to 8 kHz in frequency.
- Nair, R.V.; Lal Mohan, R.S.; & Rao, K. Satyanarayana
 1975. The dugong *Dugong dugon*.
ICAR Bull., Central Marine Fisheries Res. Inst. (Cochin, India), 26: 1–42 + 2 appendices. 1 tab. 7 figs. 1 pl. Feb. 1975.
- Nakamura, M.: SEE Itoigawa & Nakamura, 1978.
- Nakamura, Takeshi: SEE Abe et al., 1982; Takayasu & Nakamura, 1984.
- Nakashita, Shigeo: SEE Oishi et al., 1990.
- Naora, Nobuo
 1944. [*History of mammals in Japan.*]
 Nara, Yotoku-sha, 1–265.
 –In Japanese.
- National Academy of Sciences, U.S.A.: SEE Anonymous, 1973a, 1976g.
- National Science Research Council of Guyana: SEE Anonymous, 1973a, 1974c.
- Natterer, Johann: SEE Diesing, C.M., 1839; Pelzeln, A. von, 1883.
- Naumov, N.P.: SEE Heptner & Naumov, 1967.
- Naumova, E.I.
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 Moscow, “Nauka” (Akad. Nauk SSSR) (405 pp.): 312–330.
- Neal, F.C.: SEE ALSO Irvine et al., 1980.
- Neal, F.C.; Irvine, A. Blair; Bachman, K.C.; & Jenkins, Robert L.
 1979. Clinical data from free-ranging and captive West Indian manatees. [Abstr.]
Proc. 10th Ann. Meeting Internatl. Assoc. Aquatic Animal Medicine, 32.
- x Neish, W.D.
 1896. The manatee, *Manatus australis*.
Jour. Inst. Jamaica, 2(3): 287–288. “Jul., 1896” (issued Nov. 10, 1896).
 –Gen. acc. of West Indian manatees, with comments on some specimens recently captured, and measurements of one animal. States that the manatee is uncommon but not rare in Jamaica.
- Nelson, Edward William
 1916. The larger North American mammals.
Natl. Geogr. Mag., 30(5): 385–472. 73 figs. Nov. 1916.
 –Repr. in his *Wild Animals of North America* (Washington, Natl. Geogr. Soc., 1918). Florida manatee, 465, 467–468.
- Nelson, Michael S.
 1992. Save the Manatee Club.
Florida Naturalist, 65(2): 18. Summer 1992.
 –Summarizes the Club’s activities over the previous year.
- D Nemoto, H.
 1963. A desmostylid excavation trip to Hatsuyukizawa, Keton, Saghalin.
Warera-no-Kobutsu, 5(1): 10–18.
- Nemoto, Takabumi: SEE Shibata et al., 1981; Yamaguchi et al., 1981.

- Nery, Frederico José de Santa-Anna: SEE Santa-Anna
Nery, Frederico José de.
- Ness, P.S.
1986. Introducing the West Indian manatee.
Freshwater Mar. Aquar., 9(10): 50–51. Illus.
- Netto, Felipe Joaquim de Souza
1911. Relatório da Recebedoria do Estado do Amazonas.
In: A.C.R. Bittencourt, *Mensagem lida perante o Congresso dos Representantes por ocasião da abertura da primeira sessão ordinária da sétima legislatura em 10 de Julho de 1910*.
Manaus (Brazil), Secção de Obras da Imprensa Official (387 pp.), Anexo no. 29: 1–16. Tabs.
—Gives some statistics on the production of mixira (canned manatee meat) in the State of Amazonas during 1909 and 1910 (in annexos 1, 1ABC, 2, and 2C).
- Neumann
18??. [Title?].
Jour. Geogr. Soc. Irkutsk.
—Publ. before 1883.
- Neumann, Dietrich
1936. Das Handskelett von *Halitherium schinzi* Kaup.
Pal. Zs. (Berlin), 18(3/4): 257–291. 4 figs. 2 pls.
Dec. 31, 1936.
- Neumayer, E.
1983. *Prehistoric Indian rock paintings*.
Bombay, Oxford Univ. Press, vii + 159. 17 pls.
—Interprets rock paintings at Gandhi Sagar, Rajasthan, India as Mesolithic representations of dugongs (41, 146).
- Nevill, H. (ed.)
1885. Dugong.
The Taprobanian (London, Trubner & Co.), 1(1): 2.
- x Neville, Melvin; Castro, Napoleón; Mármol Burgos, Andrés E.; & Revilla, Juan
1976. Censusing primate populations in the reserved area of the Pacaya and Samiria Rivers, Department Loreto, Peru.
Primates, 17(2): 151–181. Apr. 1976.
—Notes that *T. inunguis* seemed to be abundant in the Santa Elena R., a tributary of the Samiria, and that one was drowned in a net (155).
- Newton, Edwin Tolley
1891. The Vertebrata of the Pliocene deposits of Britain.
Gen. Mem. Geol. Surv. United Kingdom, 12: xi + 138. 10 pls.
—Sirs., 48, pl. 5.
- Nicholson, W.: SEE Herbert & Nicholson, 1780.
- Nichols, James D.: SEE Packard & Nichols, 1983.
- Nicholson, Henry Alleyne; & Lydekker, Richard
1889. *A manual of palaeontology, for the use of students; with a general introduction on the principles of palaeontology*. Ed. 3.
Edinburgh & London, W. Blackwood & Sons (2 vols.), Vol. 2: xi + 889–1624. Figs. 813–1354.
—Rev.: *Rev. Quest. Sci.*, 28: 327–342, 1891? The first and second eds. were by Nicholson alone (1872, 1879). Sirs., 212.
- Nicorici, Eugen; & Popovici, Nicolae
1984. Sirenid endocranial cast from the Upper Eocene of Transylvania.
Dari Seama Şedinşelor Inst. Geol. Geofiz. Rom., 68(3): 91–95. 2 pls.
—In Romanian; Engl. and French summs.
- Nieda, Kurt von: SEE Wagner et al., 1983.
- Nieremberg, Juan Eusebio
1635. *Historia naturae, maxime peregrinae, libris XVI, distincta. In quibus rarissima naturae arcana, etiam astronomica, & ignota Indiarum animalia, quadrupedes, aues, pisces, reptilia, insecta, zoophyta, plantae, metalla, lapides, & alia mineralia, fluuitorumque & elementorum conditiones, etiam cum proprietatibus medicinalibus, describuntur; nouae & curiosissimae quaestiones disputatur, ac plura sacrae Scripturae loca eruditè enodantur. Accedunt de miris & miraculosis naturis in Europâ libri duo: item de iisdem in Terrâ Hebraeis promisâ liber vnus*.
Antwerp, ex officina Plantiniana Balthasar's Moreti, [8] + 502 + [104]. Illus.
—Sirs., lib. 11, cap. 9, p. 269.
- Nietschmann, Bernard
1971. Hunting and fishing focus among the Miskito Indians, eastern Nicaragua.
Human Ecology, 1(1): 41–67.
—States that manatees make up less than 3% of the meat poundage obtained by hunting.
- Nietschmann, Bernard
1973. *Between land and water: the subsistence ecology of the Miskito Indians, eastern Nicaragua*.
New York & London, Seminar Press, xiv + 279.
- x Nietschmann, Bernard
1977. The wind caller.
Nat. Hist. (New York), 86(3): 10–12, 14, 16. 1 fig. Mar. 1977.
—Repr.: *Reader's Digest*, Canadian ed., Oct. 1977. Pop. acc. of the Torres Strait area, including traditional lore on the feeding behavior of dugongs and their movements with respect to the tides (10–12, 14).
- x Nietschmann, Bernard
1984. Hunting and ecology of dugongs and green turtles, Torres Strait, Australia.
Natl. Geogr. Soc. Res. Rept., 17: 625–651. 5 tabs. 11 figs.
—Relatively nondetailed account of a year-long

research visit to Mabuiag Is., with catch statistics and measurements on dugongs and turtles caught (1976–1979), percentages of seagrass species found in dugong stomachs, lists of Islander terms for categories of dugongs and turtles, and other data on natural history and human ecology.

- x Nietschmann, Bernard; & Nietschmann, Judith
1981. Good dugong, bad dugong; bad turtle, good turtle. *Nat. Hist.* (New York), 90(5): 54–63. 11 figs. May 1981.
–Gen. acc. of dugong and turtle ecology and hunting, and their role in Torres Strait society and economy.
- Nieuhof, Johan (= Jean Nieuhoff)
1665. *L'ambassade de la Compagnie Orientale des Provinces Unies vers l'Empereur de la Chine, ou Grand Cam de Tartarie, faite par les Srs. Pierre de Goyer, & Jacob de Keyser, illustrée d'une tres-exacte description des villes, bourgs, villages, ports de mers, & autres lieux plus considerables de la Chine: enrichie d'un grand nombre de tailles douces. Le tout recueilli par le Mr. Jean Nieuhoff, ...: mis en francois, orné, et assorti de mille belles particularitez tant morales que politiques, par Jean le Carpentier, historiographe.* Leiden, J. de Meurs (2 parts in 1 vol.), xii + 290 + 134. Illus.
–Sirs., 2: 100.
- Nigrelli, R.F.
1940. Mortality statistics for specimens in the New York Aquarium, 1939. *Zoologica*, 25: 525–552.
–Amphistome parasite in cecum of *T. manatus*, 550.
- x Nimuendajú, Curt
1952. The Tukuna. [Ed. by R.H. Lowie; transl. by W.D. Hohenthal.] *Univ. California Publ. Amer. Archaeol. Ethnol.*, 45: x + 209. 13 figs. 18 pls. 1 map. Apr. 16, 1952.
–P. 26: {“The peixe-boi, or manatee (*Manatus inunguis*; T[ukuna], a'iruvë), is rarely caught. The Tukuna do not kill the red dolphin (*Delphinus* sp.), notwithstanding their dislike for it because it scares away the fish.”} This relates to the region of the Rio Solimões or Amazon between Leticia and Tonantins, Brazil.
- Nishiwaki, Masaharu: SEE ALSO Kasuya & Nishiwaki, 1978.
- Nishiwaki, Masaharu
1967. Distribution and migration of marine mammals in the North Pacific area. *Bull. Ocean Res. Inst. Univ. Tokyo*, No. 1: 1–64. 22 figs. 8 pls. Dec. 1967.
–Sirs., 7–8?

- Nishiwaki, Masaharu
1968. Dugong and manatee. *Animals and Zoo*, 20(2): 48–51.
–In Japanese.
- Nishiwaki, Masaharu
1972. General biology. In: S.H. Ridgway (ed.), *Mammals of the sea: biology and medicine*. Springfield (Illinois), Charles C Thomas (812 pp.), 3–204.
–Sirs., 192–200.
- Nishiwaki, Masaharu
1977. Ecology of the dugong and its management. *Mar. Res. Indonesia*, No. 19: 1–6. 1 tab. 1 fig.
- Nishiwaki, Masaharu
1978. Recent distribution and status of *Dugong*. [Abstr.] *Congressus Theriol. Internatl.*, 2: 94. Illus.
- Nishiwaki, Masaharu
1984a. Current status of the African manatee. *Acta Zool. Fennica*, No. 172: 135–136.
- Nishiwaki, Masaharu
1984b. Significance of 55° S in the ‘Indian Ocean Sanctuary of Whales’ in relation to the distribution of marine mammals. *Mem. Natl. Inst. Polar Res., Special Issue*, No. 32: 122–129. Illus.
- x Nishiwaki, Masaharu; Kasuya, Toshio; Miyazaki, Nobuyuki; Tobayama, Teruo; & Kataoka, Teruo
1979. Present distribution of the dugong in the world. *Sci. Rept. Whales Res. Inst.*, No. 31: 133–141. 2 figs. Dec. 1979.
–Abstr.: Nishiwaki et al. (1981). Summarizes dugong distribution based on interview surveys, and recognizes 5 more or less discrete areas of relatively continuous distribution: eastern Australia, eastern Papua New Guinea, and Melanesia; western Australia, Moluccas, and Philippines; Sumatra, Malaysia, and Andamans; India and Sri Lanka; and East Africa and Madagascar. Suggests that dugong populations in the latter two regions are declining, and offers a population guesstimate of 30,000 animals worldwide. Cites records of rare dugong occurrences at Guam and Yap; discusses the roles of water temperature and ocean currents in dugong distribution; and notes the issuance of dugong postage stamps by the Ryukyus (in 1966) and Tanzania (in 1977).
- n Nishiwaki, Masaharu; Kasuya, Toshio; Tobayama, Teruo; Miyazaki, Nobuyuki; & Kataoka, Teruo
1981. Distribution of the dugong (*Dugong dugon*) in the world. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.).

[Townsville (Australia)], James Cook Univ. (vii + 400), 8–9.

–Abstr. of Nishiwaki et al. (1979).

Nishiwaki, Masaharu; & Marsh, Helene D.

1985. Dugong, *Dugong dugon* (Müller, 1776). In: S.H. Ridgway & R.J. Harrison (eds.), *Handbook of marine mammals*. Vol. 3.

London, Academic Press, 1–31. 1 tab. 10 figs.

x Nishiwaki, Masaharu; Yamaguchi, M.; Shokita, S.; Uchida, Senzo; & Kataoka, Teruo

1982. Recent survey on the distribution of the African manatee.

Sci. Rept. Whales Res. Inst., No. 34: 137–147. 2 figs. Dec. 1982.

–An interview survey in 1980–1981 found evidence of *T. senegalensis* mainly in the Niger River and its tributaries; also in the Sanaga and Ivindo Rivers in Cameroon and Gabon, respectively; and in Gambia, Ivory Coast, and Ghana to some extent. They were found to be scarce or absent elsewhere, and not found at all in salt water. [More recent work by J.A. Powell, Jr., casts doubt on the accuracy of many statements in this report.] Points out the need for an international conservation strategy for the manatee.

Noack, Th.

1887. Lebende Manati.

Zool. Garten (Frankfurt), 28(10): 293–302.

Noack, Th.

1889. Beiträge zur Kenntniss der Säugethierfauna von Süd- und Südwestafrika.

Zool. Jahrb., 4(1): 94–261.

–Sirs., 105.

Nohara, Tomohide: SEE Hasegawa & Nohara, 1982.

x Nojima, Takao

1988. Developmental pattern of the bony falx and bony tentorium of spotted dolphins (*Stenella attenuata*) and the relationship between degree of development and age.

Mar. Mamm. Sci., 4(4): 312–322. 2 tabs. 3 figs. Oct. 1988.

–Mentions the presence of a bony falx cerebri of the “carnivore type” in *Dugong* and *Trichechus*; i.e., a bony falx that is an integral part of the skull bones and not an ossification seen only in old age (315, 320).

Nokariya: SEE Hasegawa & Nokariya, 1979.

x Nolan, T.B.

1964. Areal and stratigraphic range of desmostylians. In: Geological Survey research, 1964.

U.S. Geol. Surv. Prof. Paper, 501A: A136–A137.

–Summarizes the known ranges of desmostylians and their possible geologic and biogeographic implications.

x Nopcsa, Franz von

1923. Vorläufige Notiz über die Pachyostose und Osteosklerose einiger mariner Wirbeltiere.

Anat. Anz., 56(15/16): 353–359. Feb. 26, 1923.

–Discusses pachyostosis and related physiological phenomena with reference to adaptation to air-breathing and submergence in sirs. and other marine vertebrates. Concludes that heavy bones serve as ballast, at least in earlier stages of aquatic adaptation, but that pachyostosis and osteosclerosis are basically disturbances of function that might in some cases bring about extinction.

Nopcsa, Franz von; & Heidsieck, E.

1934. Ueber eine pachyostotische Rippe aus der Kreide Rügens.

Acta Zool., 15: 431–455. 13 figs.

x Nordenskiöld, Adolf Erik

1881a. *The voyage of the Vega round Asia and Europe with a historical review of previous journeys along the north coast of the Old World*. [Transl. by A. Leslie.]

London, Macmillan & Co. (2 vols.), Vol. 1: xxv + 524; Vol. 2: xvii + 646 [464?]. Figs. Maps.

–This was the first Engl. ed.; original ed. in Swedish, 1880. American ed., New York, Macmillan: xxvi + 756, 1882. German eds., Leipzig, Berlin, Vienna, 1882; St. Petersburg, 1883. Extract: *Korresp.-Bl. Deutsch. Ges. Anthrop.*, 13: 20–21, 30–32, 39, 1 fig., 1882?

Gen. acc. of Steller’s sea cow and the history of its hunting (2: 272–276); reports of live sea cows at Bering Island ca. 1780 and 1854 (276–278); account of collecting sea cow bones (278, 280); mention of the natives’ use of sea cow ribs for making sledge runners and carvings (280); and mention of the abundance of seaweed at Bering Is. (292). The figs. include illustrations of the Stockholm skeleton of *Hydrodamalis* (279), reconstructions of the animal by earlier authors (279, 280), and a frond of the alga *Thalassiophyllum clathrus* (293). See also E.H. Yamall (1879).

Nordenskiöld’s claim in this work that the sea cow survived into the nineteenth century led to several years of dispute between himself (see also Nordenskiöld, 1885b) and L. Stejneger (1884, 1886, 1887). The issue was eventually settled in Stejneger’s favor by the paucity and weakness of evidence for sightings after 1768.

Nordenskiöld, Adolf Erik

1881b. Ein Besuch auf der Bering-Insel.

Petermann’s Geogr. Mitt., 27: 26–30.

–?Review: *D. Ausland*, 1881: 86–89?

- n Nordenskiöld, Adolf Erik
 1885a. Bemötande af anmärkningar, som riktats mot min skildring af Vegas färd kring Asien och Europa. *Ymer* (Stockholm, Swedish Soc. Anthropol. Geogr.), 5: 246–267.
 –Engl. transl.: Nordenskiöld (1885b).
- x Nordenskiöld, Adolf Erik
 1885b. Reply to criticisms upon “The voyage of the Vega around Asia and Europe.”
Jour. [Bull.] Amer. Geogr. Soc., 17: 267–298. 2 maps.
 –Transl. of Nordenskiöld (1885a) by V.A. Elfwing. Replies to Stejneger’s (1884) criticisms of Nordenskiöld’s (1881a) reports of Steller’s sea cow alive at Bering Island after 1768 (280–284). States that the bones he collected were distributed to the museums at Uppsala, Gothenburg, Lund, and principally Stockholm (284–285). Those deposited in Stockholm are said to have included a metacarpal, but this was actually the transverse process of a sacral vertebra (Domning, 1978b: 97–98, pl. 17).
- x Nordmann, Alexander von
 1860. *Palaeontologie Südrusslands. IV. Elephas, Mastodon, Dinotherium, Phoca, Manatus, Cetotherium, Balaena, Balenoptera und Delphinus.* Helsinki, H.C. Friis, 271–360. Pls. 18–28.
 –Revs.: *Bull. Soc. Nat. Moscou*, 33(3): 377–487?; J.J. Nöggerath, *Westermanns Monatsh.*, 6: 48–50, 1859? Describes scapulae, ribs, and vertebrae of “*Manatus maeoticus*” from Bessarabia (328–333, pl. 25).
- x Nordmann, Alexander von
 1861. Zur Paläontologie Südrusslands. Notiz ueber eine Sendung fossiler Knochen aus den Steinbruechen um Kischinew in Bessarabien.
Bull. Soc. Nat. Moscou, 34(1): 577–586. Pls. 11–12.
 –Discusses scapulae, vertebrae, ribs, and sterna of “*Manatus maeoticus*” (581–582), and illustrates a scapula (pl. 11). The remains are Late Miocene (Sarmatian) in age.
- Nordmann, Alexander von
 1862a. Beiträge zur Kenntniss des Knochen-baues der *Rhytina Stelleri*.
Acta Soc. Sci. Fennicae, 7: 1–33. Pls. 1–5.
 –?Rev.: *Arch. Naturgesch.*, 28: 153? Describes in detail the skeleton of an immature Steller’s sea cow in the Helsinki museum. This skeleton was collected by a Finnish expedition on Bering Island and appears to be genuinely associated, unlike all the other *Hydrodamalis* skeletons in museums, which are composite. See also P.J. Van Beneden (1862a).
- Nordmann, Alexander von
 1862b. *Rhytina stelleri* und deren vollständiges Skelet.
Sitzb. Ges. Naturf. Freunde Berlin, Jul. 1862: 1.
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past, or that it approached extinction at the turn of the century. Manatees may have become more numerous since the 1950s, but this trend is probably over, and a future decline is increasingly likely if strenuous efforts are not made to reduce or alleviate the effects of human population growth.

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x O'Shea, Thomas J.; Beck, Cathy A.; Bonde, Robert K.; Kochman, Howard I.; & Odell, Daniel Keith

1985. An analysis of manatee mortality patterns in Florida, 1976-81.

Jour. Wildl. Manage., 49(1): 1-11. 5 tabs. 1 fig.

-Summarizes and statistically analyzes the causes of death of 406 manatees, with regard to season, location, size, and other variables. Winter mortality is considered to be largely attributable to hypothermia and cachexia in newly independent and inexperienced subadults who fail to find warm-water refugia. Sources of human-related mortality and possible means of mitigating them are discussed, and the importance of habitat protection to long-term manatee survival is stressed.

x O'Shea, Thomas J.; Correa-Viana, Martín; Ludlow, Mark E.; & Robinson, John G.

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Biol. Conserv., 46: 281-301. 3 tabs. 1 fig.

-Abridged Spanish transl.: Correa-Viana et al. (1990). Presents results of interview and aerial

surveys, and describes hunting methods, use of manatee products, and traditional beliefs. Some manatees were found in Lake Maracaibo, but they are most abundant in eastern Venezuela and the Orinoco. Hunting seems to be declining. The Caribbean coast of Venezuela may be a barrier to manatee gene flow. Evidence for seasonal movements is weak, and Orinoco manatees may undergo dry-season fasting. Ends with recommendations for improved conservation measures.

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O'Shea, Thomas J.; & Ludlow, Mark E.

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Jour. Wildl. Manage., 48(3): 741-748. 1 tab. 1 fig.

-An earlier version of this paper was publ. in J.M. Packard (1983c: 133-158. 2 tabs. 2 figs.). Analyses of tissue samples from salvaged carcasses showed no excessive contamination by metals or organochlorines, except that unprecedentedly high copper concentrations were found in livers of manatees from Crystal River, where copper is heavily used in herbicides. These copper levels exceeded those reported for any other wild mammals and were comparable to levels associated with toxic effects in domestic species.

x O'Shea, Thomas J.; Rathbun, Galen B.; Asper, Edward D.; & Searles, Stan W.

1985. Tolerance of West Indian manatees to capture and handling.

Biol. Conserv., 33(4): 335-349. 2 tabs.

-Describes procedures used in capturing and handling Florida manatees, and reports that none of the 92 animals captured between 1975 and 1983 showed evidence of capture myopathy. Blood chemistry data are given for some of these and, by way of comparison, for captive manatees.

- Concludes that manatees, unlike dugongs, seem not to be susceptible to capture stress.
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1991. An epizootic of Florida manatees associated with a dinoflagellate bloom.
Mar. Mamm. Sci., 7(2): 165-179. 1 tab. 3 figs. Apr. 30, 1991.
-Deaths of 37 manatees near Ft. Myers, Florida, in early 1982 are attributed to neurotoxicity resulting from concentration of red tide organisms (*Gymnodinium breve*) by ascidians on which the manatees fed. Unusual circumstances of temperature and salinity also contributed to this catastrophic kill.
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Jour. Mamm., 71(4): 534-543. 2 tabs. 2 figs. Dec. 7, 1990.
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- x O'Shea, Thomas J.; & Salisbury, Charles A. "Lex"
1991. Belize—a last stronghold for manatees in the Caribbean.
Oryx, 25(3): 156-164. 2 tabs. 4 figs. Jul. 1991.
-Aerial surveys in May 1989 resulted in sightings of 102 manatees (including 5 calves), suggesting no change in population size since 1977. Survey results from the entire Caribbean region are summarized. Belize appears to harbor the largest number of manatees in the region, due to good habitat and lack of hunting. Recommendations for improved manatee conservation are offered.
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1988? Dugongs in the Torres Strait: a teaching kit for use in the Torres Strait.
Thursday Island (Australia), Austral. Fisheries Serv., Dept. of Primary Industry & Energy, iv + 8 + 7 + 5 + 3 + 4. Illus.
-In addition to this teacher's guide, the kit contains 2 videos, 3 pamphlets, a book, 2 maps, 2 posters, a tape cassette, and a conservation badge.
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- x Odell, Daniel Keith
1976. Distribution and abundance of marine mammals in south Florida: preliminary results. In: A. Thorhaug & A. Volkes (eds.), *Biscayne Bay: past/present/future*.
Univ. Miami Sea Grant Spec. Rept., No. 5: 203-212. 5 figs. Read Apr. 2-3, 1976.
-Presents the results of aerial surveys (Sep. 1973-Dec. 1975) of *T. manatus* and *Tursiops truncatus*; up to 75 manatees were seen per flight, mostly in Whitewater Bay and the Everglades (203-206, 212).
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1981. Growth of a West Indian manatee, *Trichechus manatus*, born in captivity. In: R.L. Brownell, Jr., & K. Ralls (eds.), *The West Indian manatee in Florida. Proceedings of a workshop held in Orlando, Florida 27-29 March 1978* (q.v.).
Tallahassee, Florida Dept. Nat. Res. (iv + 154), 131-140. 2 tabs. 4 figs.
-Describes the first 3 years of growth of Lorelei, the Miami Seaquarium's first captive-born manatee, and compares them with data on other captive manatee calves. Allometric growth equations are

derived, and some observations on nursing and early consumption of solid food are included.

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Baltimore, Johns Hopkins Univ. Press (1184 pp.), 828–837. 6 figs.

x Odell, Daniel Keith; Forrester, Donald J.; & Asper, Edward D.

1981. A preliminary analysis of organ weights and sexual maturity in the West Indian manatee (*Trichechus manatus*). In: R.L. Brownell, Jr., & K. Ralls (eds.), *The West Indian manatee in Florida. Proceedings of a workshop held in Orlando, Florida 27–29 March 1978* (q.v.).

Tallahassee, Florida Dept. Nat. Res. (iv + 154), 52–65. 3 tabs. 7 figs.

—Presents data from salvaged carcasses on body weight vs. length, and weights of heart, lungs, liver, kidneys, adrenals, spleen, pancreas, thyroid, and gonads, and discusses gonad weight as an indicator of sexual maturity (estimated to occur at body lengths of 275 cm in males and 260 cm in females).

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Jour. Wildl. Manage., 43(2): 572–577. 3 figs.

—Repr. in Brownell & Ralls (1981: 92–97). Presents records of mortality at flood-control dams in Dade County, observations on manatee behavior near dams, statistics on other sources of mortality, and suggestions for modifying the dams to prevent future manatee deaths.

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Florida Conserv. News (Florida Dept. Nat. Resources), 15(6): 4–5. 4 figs. + 1 fig. on p. 3. Mar. 1980.

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Biol. Conserv., 14(4): 289–293. 2 figs. Dec. 1978.

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Oescu, C.V.: SEE Macarovici & Oescu, 1942.

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Ogasawara, Kenshiro: SEE ALSO Takahashi et al., 1983.

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1990. A new Miocene gastropod species co-occurred with *Paleoparadoxia* specimens from the Yamagawa Formation, Fukushima Prefecture, northeast Honshu, Japan.

Saito Ho-on Kai Mus. Nat. Hist. Res. Bull., No. 58: 25–30. 1 tab. 1 fig. 1 pl. Dec. 25, 1990.

—Concludes that the Middle Miocene environment of deposition was near a shallow tidal or lagoonal area in a subtropical climate (minimum winter temperature about 15° C). See also Suzuki et al. (1986a,b).

Ogden, John C.: SEE Thayer et al., 1984.

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—Said to be plagiarized from Arnoldus Montanus, *De nieuwe en onbekende weereld*, Amsterdam, 1671. Sirs., 315.

Ogose, Sunao: SEE ALSO Fujita & Ogose, 1951.

D Ogose, Sunao

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Jour. Geol. Soc. Japan, 58(683): 400. Aug. 1952.

—See also S. Ijiri (1952a).

- D Ogose, Sunao
1952b. A comment on the *Cornwallius*-bearing formation in Izumi-machi, Gifu Prefecture.
Jour. Geol. Soc. Japan, 58(686): 549–550.
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- Ohnishi, Koji
1991. A tentative evolutionary tree of mammalian orders constructed by Hennigian comparison of the amino acid sequences of alpha-crystallin A chain, myoglobin, and hemoglobin alpha chain.
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- x Ohtomo, T.; Yoshida, K.; & Hasegawa, A.
1980. Comparison of the reactions of the compact-colony forming active substance (CCFAS) to the clumping-factor reaction in a strain of *Staphylococcus aureus* with animal plasma.
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—Describes clotting times and clumping-factor reactions of plasma from *T. manatus* and other animals.
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Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 3–7. 1 tab. Mar. 1987.
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- Oishi, Masayuki
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1990. An occurrence of postcranial skeleton of *Desmostylus* from Kintaichi, Ninohe City, Iwate Prefecture, northeast Japan.
Bull. Iwate Prefectural Mus., No. 8: 1–16. 1 tab. 14 figs. Aug. 1990.
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- D Oishi, Masayuki; & Kawakami, Takeshi
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- Okazaki, Yoshihiko: SEE ALSO Hasegawa, 1978; Hasegawa et al., 1988; Kamei & Okazaki.
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- Oswald, Felix
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Sci. Prog., 5: 396–430. 20 figs.
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- Ottenwalder, J.A.: SEE Rathbun, Woods, & Ottenwalder, 1985.
- D Otuka, Yanosuke
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1526. *Dela natural hystoria delas Indias*.
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- Allen 3. Many later eds. & transls., e.g., *Univ. North Carolina Studs. Romance Langs. Lit.*, No. 32: xvii + 140, 1959 (Engl.). The account of the manatee given here (leaf xlvi; 30 lines) is brief in comparison with that in Oviedo (1535). This “brief description of America, which he wrote on a visit home in 1526, proved so good that he was made official chronicler of ‘The Indies,’ and in 1535 appeared the first volume of his *Historia General y Natural de las Indias*. Oviedo had uncommon powers of observation, and his descriptions of West Indian fauna and flora are illustrated by his own sketches” (Morison, 1942). He spent 34 years in different parts of the Caribbean, and his descriptions are evidently based on personal observation, unlike that of P. Martyr (1516); see Whitehead (1977: 168).
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—Allen 5. Many later eds., e.g., Madrid, 1851–55; Asuncion (Paraguay), Editorial Guaranía, 1944. Titles vary. See also Ramusio (1565); *Purchas his pilgrimes*, 1625, 3: 970–1000 (Allen 61; manatee, 987–989).
Manatee, leaves cvi–cviii, 1 fig.: “Capitulo x. Del Manati y de su grandeza & forma: & de la manera que algunas vezes los indios tomauan este grãde animal conel pexe reuerso: & otras particularidades.”
According to Allen, “The account occupies 5 pp., and is important as the source whence many later compilers drew their materials for the history of the Manatee, and is still historically of the highest interest. There is a small, very rude cut, bearing some likeness to the general form of the Manatee—the earliest figure of the animal published [see frontispiece]. In the edition of 1547 the text (ff. cvj–cvij) is the same as the present, but the figure is slightly different, showing an attempt at artistic improvement.”
- Ovington, John Derrick
1978. *Australian endangered species: mammals, birds and reptiles*. Stanmore (New South Wales), Cassell, 1–183. Illus.
- Owen, Richard
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—Sirs., 121.
- x Owen, Richard
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—Allen 941. ?Summ.: *Isis*, 1845: 364–367? Describes the digestive, circulatory, respiratory, urogenital, skeletal, and dental systems of the dugong, with comparisons to other sirs. and cetaceans; concludes that the two orders are not related. Includes tables of measurements.
- Owen, Richard
1838b. Fossil Marsupialia from the caves of Wellington Valley. In: T.L. Mitchell, *Three expeditions into the interior of eastern Australia, with descriptions of the recently explored region of Australia Felix, and of the present colony of New South Wales*. London, publ. by the author (Vol. 2: viii + 405. Illus.), 368–369.
—Considers *Diprotodon* “a dugong”?
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1839a. [On the *Basilosaurus* of Dr. Harlan.] *The Athenaeum* (London), No. 585: 35–36. Jan. 12, 1839.
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1839b. Entozoa. In: Todd, *Cyclopaedia of anatomy and physiology*. Vol. 2, 111–144.
—Discusses the morphology of an “*Ascaris*” (= *Paradujardinia*) from the stomach of a dugong.
- Owen, Richard
1840–1845. *Odontography; or, a treatise on the comparative anatomy of the teeth; their physiological relations, mode of development, and microscopic structure, in the vertebrated animals*. London, Hippolyte Baillière; Paris, J.B. Baillière; Leipzig, T.O. Weigel (2 vols., text & atlas), xx + lxxiv + 655. Atlas: 1–37. 168 pls.
—Allen 1013. ?Extracts: *Nuovi Ann. Sci. Nat.* (Bologna), (2)1: 76–80, 233–238, 314–318; 2: 153–160; 3: 70–80; (3)2: 266–282, 427–443; 4: 454–468; 8: 249–257? Sirs., 364–372; Atlas, 23–24, pls. 92–97: *Halicore indicus*, 364–371, pls. 92–95; *Manatus americanus*, 371, pl. 96; *Halitherium brocchii*, 372, pl. 97.
- Owen, Richard
1843. [Title?] *Proc. Geol. Soc. London*, 4: 230.
- Owen, Richard
1846. *A history of British fossil mammals, and birds*.

- London, J. Van Voorst, xlvii + 560. 237 figs.
- Owen, Richard
 1847. Notes on the characters of the skeleton of a dugong (*Halicore Australis*). Appendix IV in: J. Beete Jukes, *Narrative of the surveying voyage of H.M.S. "Fly," commanded by Captain F.P. Blackwood, R.N., in Torres Strait, New Guinea, and other islands of the Eastern Archipelago, during the years 1842-46: together with an excursion into the interior of the eastern part of Java*. London, T. & W. Boone (2 vols.), Vol. 2: 225, 323-328, pl. 27.
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 1852. Teeth. In: *Cyclopaedia of anatomy*. Vol. 4, 902. Fig. 575.
- x Owen, Richard
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 -Describes the new genus and species without expressing any opinion as to its age.
- Owen, Richard
 1856. Dr Vogel on the ajuh of Central Africa. *Edinburgh New Philos. Jour.*, (2)4(2): 345-346. Oct. 1856 (read Aug. 5-12, 1856); back of Smithsonian Inst. copy stamped "Oct. 14 1856."
 -Repr.: Owen (1857b). French transl.: *L'Institut*, 25(1208): 61-62, Feb. 25, 1857. Compares the "Ajuh" to *Manatus Senegalensis* and *M. Americanus*, and names it *Manatus Vogelii*, n.sp.
- Owen, Richard
 1857a. On the characters, principles of division, and primary groups of the class Mammalia. *Jour. Linn. Soc. London*, 2: 1-37. 6 figs.
 -?Repr.: *Proc. Linn. Soc. London, Zool.*, 2: 1-37. 6 figs. Sirs., 26.
- x Owen, Richard
 1857b. Note on the ajuh of Dr. Vogel. In: Shaw, N., 1857 (q.v.). *Rept. Brit. Assoc. Adv. Sci., 26th Meeting* (1856): 99-100.
 -Material identical to Owen (1856).
- Owen, Richard
 1860. *Palaeontology; or, a systematic summary of extinct animals and their geological relations*. Edinburgh, A. & C. Black, xv + 420. 142 figs.
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 -Sirs., 193-194, 429, 436.
- Owen, Richard
 1868. *On the anatomy of vertebrates. Vol. III. Mammals*. London, Longmans, Green, & Co., x + 915. 614 figs.
 -Rev.: *Anthrop. Rev.*, 7: 252-259, 1869? Sirs., 195, 483, 521-522, 908.
- x Owen, Richard
 1875a. On fossil evidences of a sirenian mammal (*Eotherium aegyptiacum*, Owen) from the Nummulitic Eocene of the Mokattam Cliffs, near Cairo. *Quart. Jour. Geol. Soc. London*, 31(1)(121): 100-105. Pl. 3. Feb. 1, 1875.
 -Describes *Eotherium aegyptiacum*, n.gen.n.sp., based on a natural cranial endocast, which he compares with the brains of other sirs. Also gives a brief synopsis of various European sirs.
- x Owen, Richard
 1875b. *On Prorastomus sirenooides* (Ow.). - Part II. *Quart. Jour. Geol. Soc. London*, 31: 559-567. Pls. 28-29.
 -Rev.: *Geol. Mag.*, (2)12(9): 422-423, Sep. 1875. Amplifies the 1855 description of *P. sirenooides* following further preparation of the type specimen; compares it with other sirs.; and discusses its possible mode of tooth replacement and its implications for an early common ancestry of sirs. and ungulates. On p. 560 he introduces, probably inadvertently, a new name (*Halicore malayana*) for the Recent dugong.
- Owen, Robert P.: SEE Brownell, Anderson et al., 1981.
 Oxley-Oxland, R.: SEE Hughes & Oxley-Oxland, 1971.
- D Ozawa, Y.
 1924. A new locality of *Desmostylus*. *Jour. Geol. Soc. Tokyo*, 31(371-372): 317-318.
 -In Japanese.
- Ozeretskovsky, Nikolai Yakovlevich
 1802. De speciebus, systematicum genus Trichechi constituentibus. *Nov. Act. Acad. Sci. Petropolitanae*, 13: 371-375. Pl. 13.
 -Allen 466. Discusses the relationship of the walrus, Steller's sea cow, and dugong.

P

- Pacini, P.: SEE Fondi & Pacini, 1974.
- Packard, Earl L.: SEE ALSO Smith & Packard, 1919.
- D Packard, Earl L.; & Kellogg, Remington
 1934. A new cetothere from the Miocene Astoria Formation of Newport, Oregon. *Carnegie Inst. Wash. Publ.*, No. 447: 20–24. 1 fig.
- Packard, Jane M.: SEE ALSO Lazcano-B. & Packard, 1989.
- Packard, Jane M.
 1983a. Proposed research/management plan for Crystal River manatees. Volume I. Summary. *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 1: 1–31. 23 figs.
 –Part of a 3-volume document (Packard, 1983a,b,c) produced under Packard’s leadership and editorship at the request of the U.S. Fish & Wildlife Service and the U.S. Marine Mammal Commission. This portion was coauthored by Catherine Puckett and was the only portion designed for wide public dissemination. It is a summary of Vol. 2, which presents the research and management plan in detail. Vol. 3 comprises a series of background papers. The plan was endorsed by the Fish & Wildlife Service, which subsequently published implementation schedules for the plan in Jun. 1985 (10 pp.) and Sep. 1986 (10 pp.).
- Packard, Jane M.
 1983b. Proposed research/management plan for Crystal River manatees. Volume II. Technical plan. *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 2: xiv + 6 + 79 + 4 + 118 + 15 + 4 + 8 + 3. 30 tabs. 65 figs. Dec. 1983.
 –Summ.: Packard (1983a).
- n Packard, Jane M. (ed.)
 1983c. Proposed research/management plan for Crystal River manatees. Volume III. Compendium. *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 3: iii + 346. Illus. Dec. 1983.
 –This compendium, edited by Packard, consists of 14 background papers, some prepared especially for the Crystal River plan and others previously or subsequently published elsewhere. They are organized into three sections and are listed separately in this bibliography under their authors: Section I, Biological Information (Powell & Rathbun, 1984; Kochman et al., 1983; Powell, 1981; O’Shea et al., 1984; O’Shea, 1983); Section II, Legal Information (Gluckman & Hamann, 1983; Hamann, 1983a,b,c; Gluckman, 1983a,b,c,d); and Section III, Socioeconomic Information (Puckett, 1983).
- x Packard, Jane M.
 1984a. Impact of manatees *Trichechus manatus* on seagrass communities in eastern Florida. *Acta Zool. Fennica*, 172: 21–22. 2 tabs.
 –Documents the amount of seagrass biomass removed by manatee rooting and grazing; notes that manatee herbivory may maintain species diversity in seagrass beds.
- x Packard, Jane M.
 1984b. Review of manatee marking techniques. *Manatee Population Research Rept.* (Gainesville, Fla., Florida Cooperative Fish & Wildlife Research Unit), No. 6: 1–29. 7 tabs.
 –See also Appendix 1. Describes characteristics, potential information gain, and feasibility of techniques used or potentially useful for marking free-ranging or restrained manatees, and makes recommendations for further development and application of these techniques.
- x Packard, Jane M.
 1985a. Development of manatee aerial survey techniques. *Manatee Population Research Rept.* (Gainesville, Fla., Florida Cooperative Fish & Wildlife Research Unit), No. 7: vi + 68. 2 tabs. 9 figs. 6 maps.
 –See also Appendix 1. A detailed discussion of and practical guide to the design and execution of manatee aerial surveys for different purposes, emphasizing conditions in Florida. Includes small-scale survey maps of 6 survey sites in Florida, sample data forms, and checklists of survey and data-analysis procedures.
- x Packard, Jane M.
 1985b. Preliminary assessment of uncertainty involved in modeling manatee populations. *Manatee Population Research Rept.* (Gainesville, Fla., Florida Cooperative Fish & Wildlife Research Unit), No. 9: 1–19. 4 tabs. 3 figs.
 –See also Appendix 1. Presents a provisional population model for *T. manatus*, which indicates that its maximum potential rate of population increase is likely to be as low as 2%–7% and that the present Florida population may be declining.

The rate of change seems to be most sensitive to changes in adult survival rate.

- x Packard, Jane M.; Frohlich, Richard Kipp; Reynolds, John E., III; & Wilcox, J. Ross
1984. Factors influencing indices of manatee abundance in the Fort Myers region, winter 1983/84. *Manatee Population Research Rept.* (Gainesville, Fla., Florida Cooperative Fish & Wildlife Research Unit), No. 5: 1–63. 12 tabs. 12 figs.
–See also Appendix 1. Analyzes the effects of manatee density, visibility, temperature, tide, and survey techniques on aerial survey results. Concludes that the aerial survey data are not sufficient to estimate actual abundance and should instead be treated as indices of trends. Separate surveys should be designed to maximize precision and accuracy of data obtained. The “block/recount” survey technique is introduced to estimate the error associated with indices obtained from individual surveys, and calibration of observers is recommended.
- x Packard, Jane M.; Frohlich, Richard Kipp; Reynolds, John E., III; & Wilcox, J. Ross
1985. Manatee response to interrupted operation of the Fort Myers power plant, winter 1984/85. *Manatee Population Research Rept.* (Gainesville, Fla., Florida Cooperative Fish & Wildlife Research Unit), No. 8: 1–20. 1 tab. 5 figs.
–See also Appendix 1. Compares manatee abundance, distribution, and local movement patterns in winter 1984 with those in winter 1985, when the plant was temporarily shut down. Most manatees sought out the warmest water available at a given time, but the interruption in the warm-water supply apparently did not last long enough for them to suffer evident harm. Also discusses the effects of visibility and other factors on consistency of aerial counts of manatees, and some results of radiotagging 16 animals.
- x Packard, Jane M.; Frohlich, Richard Kipp; Reynolds, John E., III; & Wilcox, J. Ross
1989. Manatee response to interruption of a thermal effluent. *Jour. Wildl. Manage.*, 53(3): 692–700. 2 tabs. 4 figs.
–Aerial survey data on manatees near a Ft. Myers (Florida) power plant showed that they did not leave the area when the plant was shut down for 3 weeks in Jan. 1985; instead they gathered in an area of deep waters that cooled more slowly than surrounding waters. Applicable survey techniques are discussed, together with the management implications of power-plant shutdowns and the installation of warm-water wells at the plant for the manatees’ benefit following the 1985 shut-down.
- x Packard, Jane M.; & Mulholland, R.
1983. Analysis of manatee aerial surveys: a compilation and preliminary analysis of winter aerial surveys conducted in Florida between 1977 and 1982. *Manatee Population Research Rept.* (Gainesville, Fla., Florida Cooperative Fish & Wildlife Research Unit), No. 2: iii + 119. 7 tabs. 3 figs. + numerous tabs. & figs. in appendices.
–See also Appendix 1. Presents and synthesizes data from several unpublished reports by other authors, and makes recommendations for future data collection and analysis.
- x Packard, Jane M.; & Nichols, James D.
1983. Sample size estimates: a preliminary analysis of sample sizes required for mark-recovery and mark-resighting studies of manatees (*Trichechus manatus*) in Florida. *Manatee Population Research Rept.* (Gainesville, Fla., Florida Cooperative Fish & Wildlife Research Unit), No. 4: 1–14. 4 tabs. 3 figs.
–See also Appendix 1. Concludes that estimation of annual survival rate by tag recovery from carcasses can yield only unacceptably imprecise results, but that mark-resighting methods may be successful, depending on rate of emigration and probability of sighting. Studies based on scar patterns would involve slightly different assumptions than those examined here.
- Packard, Jane M.; Rathbun, Galen B.; Domning, Daryl Paul; Best, Robin Christopher; Anderson, Paul K.; & O’Shea, Thomas J.
1984. Sea cows and manatees. In: D.W. Macdonald (ed.), *The encyclopedia of mammals*. New York, Facts on File Pubs., 292–303. 15 figs.
–Repr. in: K. Banister & A. Campbell (eds.), *The Encyclopedia of Aquatic Life*. New York, Facts on File Pubs.: 340–349. 12 figs. Dec. 16, 1985.
- x Packard, Jane M.; Siniff, Donald B.; & Cornell, John A.
1986. Use of replicate counts to improve indices of trends in manatee abundance. *Wildl. Soc. Bull.*, 14: 265–275. 3 tabs. 1 fig.
–Uses replicate counts from winter aerial surveys at Fort Myers, Florida, to calculate 3 indices of abundance. Concludes that the sight-resight index is more suitable for detecting year-to-year trends in abundance than the density and total-count indices, but that more development of the approach may be needed.
- x Packard, Jane M.; Summers, Robert C.; & Barnes, Lindsay B.
1983. Correction factors for observability of manatees during aerial surveys.

Manatee Population Research Rept. (Gainesville, Fla., Florida Cooperative Fish & Wildlife Research Unit), No. 3: 1–10. 1 tab. 1 fig.

–Summ.: Packard, Summers & Barnes (1985). See also Appendix 1. Uses actual counts of manatees identified in Blue Spring, together with 7 radiotagged manatees and 3 tagged with vinyl flags, to obtain correction factors for aerial surveys of the St. Johns River, Florida. Only 33%–57% of manatees known to be in the area were sighted from the air. Factors influencing variation in counts are discussed, including habitat type, survey conditions, and observer bias. Correction factors obtained for each survey gave estimates closer to total counts than factors based on the mean ratio-of-radios-sighted over all surveys.

- x Packard, Jane M.; Summers, Robert C.; & Barnes, Lindsay B.
1985. Variation of visibility bias during aerial surveys of manatees.
Jour. Wildl. Manage., 49(2): 347–351. 1 tab.
–A revised and abridged version of Packard, Summers, & Barnes (1983), omitting discussion of the use of vinyl flags.
- x Packard, Jane M.; & Wetterqvist, Orjan F.
1986. Evaluation of manatee habitat systems on the northwestern Florida coast.
Coastal Zone Management Jour., 14(4): 279–310. 3 tabs. 7 figs.
–Uses overlapping maps showing important features of habitat use by manatees (distribution, activities, food, summer and winter range) and humans (boat and barge traffic, boat ramps, marinas, urban areas) to identify areas of manatee-human conflict and to rank these in order of importance. Recommends ways to continually improve this approach to land-use planning, which resulted in the research/management plan for Crystal River manatees (see Packard, 1983a,b,c).
- x Packard, Winthrop
1910. *Florida trails: as seen from Jacksonville to Key West and from November to April inclusive.*
Boston, Small, Maynard & Co., 1–300. Illus.
–Briefly mentions the occurrence of manatees on the St. Lucie River, and the accidental netting and release of one on the Indian River (144–145; photo opposite p. 148).
- x Paiva, Mario
1945. *A vida dos animais da Amasônia: suas lendas e surperstições* [sic].
Belém, Oficinas Gráficas da Revista da Veterinária, 1–53.

–Rather inaccurate pop. acc. of the Amazonian manatee (35–36), confusing it with *T. manatus* and even with sperm whales!

- Palacký, J.
1902. Die Verbreitung der Meeressäugethiere.
Zool. Jahrb. Syst., 15: 249–266.
–Sirs., 254.
- Pales, Léon
1930. *Paléopathologie et pathologie comparative.*
Paris, Masson & Cie, vii + 352. 63 pls.
–Illustrates fusion of thoracic vertebrae and ribs in the skeleton of *Hydrodamalis gigas* at Lyon (pl. 27, fig. 2).
- Pallas, Peter Simon
1781. *Neue nordische Beyträge zur physikalischen und geographischen Erd- und Völkerbeschreibung, Naturgeschichte und Oekonomie.*
St. Petersburg & Leipzig, Johann Zacharias Logan (7 vols., 1781–1793?), Vol. 1: 1–375. 9 pls.
–See also G.W. Steller (1781, 1793a). Steller's sea cow, 290–299. Regarding Pallas, see Master-son & Brower (1948).
- Pallas, Peter Simon
1811. *Zoographia Rosso-Asiatica, sistens omnium animalium in extenso Imperio Rossico et adjacentibus maribus observatorum recensionem, domicilia, mores et descriptiones, anatomen atque icones plurimorum.*
St. Petersburg, Caes. Acad. Sci. (3 vols. + atlas, 1811–1831), Vol. 1: xxii + 568.
–Allen 769. *Manatus borealis*, 272, pl. 30.
- Pallas, Peter Simon
1834–1842. *Icones ad Zoographiam Rosso-Asiaticam.*
- x Palmer, Don
1989. The manatee hot tub.
Endangered Species Tech. Bull. (U.S. Fish & Wildl. Serv.), 14(9–10): 7. Sep./Oct. 1989.
–Describes a proposal for excavating an artificial lagoon near a paper mill in Georgia to provide manatees with a reliable winter source of warm water.
- Palmer, G.F.
1971. Sea cow: siren of the North Pacific.
Pacific Search, 5(6): 3–4. Mar. 1971.
- x Palmer, T.S.
1895. The earliest name for Steller's sea cow and dugong.
Science, (2)2(40): 449–450. Oct. 4, 1895.
–Notes the priority of the names *Hydrodamalis Retzius* and *Dugong Lacépède* over *Rytina* and *Halicore*, respectively; recognizes the specific names *Hydrodamalis gigas* and *Dugong dugon*; and proposes that the family names be changed to Hydrodamalidae and Dugongidae.

- Palmer, T.S.
1899. [Review of Dr. E. L. Trouessart's *Catalogus Mammalium*.] *Science*, (2)10: 491-495.
—Corrects Trouessart's use of the names *Manatus*, *Halicore*, and *Rhytina* to *Trichechus*, *Dugong*, and *Hydrodamalis*, respectively, and proposes the new name *Eotheroides* to replace the preoccupied name *Eotherium* Owen, 1875 (494).
- D Palmer, T.S.
1904. Index generum mammalium. A list of the genera and families of mammals. *North Amer. Fauna*, No. 23: 1-984.
—Sirs. and desmostylians, 224, 398, 904.
- x Palmer, William
1917. The fossil seacow of Maryland. *Science* (n.s.), 45(1162): 344. Apr. 6, 1917.
—?Repr.: *Jour. Wash. Acad. Sci.*, 7: 120? Reports a fragment of vertebra collected from the Miocene Calvert Formation. This was *Metaxytherium calvertense*, USNM 23348 (Kellogg, 1966).
- Palmieri, James R.: SEE Budiarto et al., 1979.
- Paludo, Danielle: SEE Pinto de Lima et al., 1992a, 1992b.
- Pander, Christian Heinrich; & D'Alton, Eduard
1826. Die skelete der Robben und Lamantine, abgebildet und verglichen. Abt. 1, Heft [Lief.?] 9 in: Pander & D'Alton, *Vergleichende Osteologie*, 1821-1831.
Bonn, Eduard Weber, 1-10. 7 pls.
—Allen 682. Skeleton of *Halicore indica*, 8-10, pl. 5.
- Pander, Christian Heinrich; & D'Alton, Eduard
1827. Die skelete der Cetaceen. Abt. 1, Heft [Lief.?] 11 in: Pander & D'Alton, *Vergleichende Osteologie*, 1821-1831.
Bonn, Eduard Weber, [ii] + 10. 6 pls.
—Sirs., 1.
- Parker, Fred
1979. Wildlife laws in Papua New Guinea. *Wildlife in Papua New Guinea*, 79/1: 6-19. 25 figs.
- x Parker, G.H.
1922. The breathing of the Florida manatee (*Trichechus latirostris*). *Jour. Mamm.*, 3(3): 127-135. 2 tabs. Aug. 1922.
—Records the breathing and submergence periods of three captive manatees at Miami. The longest dive observed lasted 16 min 20 sec.
- xDParker, Ronald B.; & Toots, Heinrich
1980. Trace elements in bones as paleobiological indicators. In: A.K. Behrensmeyer & A.P. Hill (eds.), *Fossils in the making: vertebrate taphonomy and paleoecology*. Chicago, Univ. Chicago Press (xii + 338), 197-207. 2 tabs. 4 figs.
- Reports that the sodium concentration in enamel of *Desmostylus* was higher (0.91% by weight) than in terrestrial mammals (205).
- Parker, Thomas Jeffery; & Haswell, William A.
1897. *A text-book of zoology*. London & New York, Macmillan (2 vols.), Vol. 2: xx + 683. Figs. 664-1172.
—Sirs., 451, 502; figs. 1082-1083.
- Parker, William Kitchen
1868. *A monograph on the structure and development of the shoulder girdle and sternum in the Vertebrata*. London, Ray Society: xii + 239. Tabs. Figs. 30 pls.
—Sirs., 218-219, pl. 29.
- Parkinson, James
1833. *Organic remains of a former world. An examination of the mineralized remains of the vegetables and animals of the antediluvian world; generally termed extraneous fossiles. . . . In three volumes. . . . The third volume; containing the fossil starfish, echini, shells, insects, Amphibia, Mammalia, &c. Second edition*. London, M.A. Natali; Leicester, T. Combe, Jr., ix-xii + 467. Frontispiece. 22 pls.
—Allen 796. First ed., 1804 or 1811? Abstr.: *Month. Mag.* (London), 32: 694-702, 1811? Sirs., 322. In 1811 ed., sirs. at 3: 309-310.
- Parona, C.
1889. Intorno all'*Ascaris halicoris*, Owen ed a qualche altro nematode raccolti in Assab dal Dott. V. Ragazzi. *Ann. Mus. Civ. Stor. Nat. Genova*, (2)7(27): 751-764. Pl. 13.
- Parris, David C.: SEE Gallagher et al., 1989.
- Parsons, James Jerome
1962. *The green turtle and man*. Gainesville, Univ. Florida Press, 1-126. Illus.
- x Pascual, Rosendo
1953. Sobre nuevos restos de sirénidos del mesopotamiense. *Rev. Asoc. Geol. Argentina*, 8(3): 163-181. 1 fig. 2 pls.
—Engl. summ. Summarizes previous work on *Ribodon* and describes new material from Argentina; concludes that the genus is valid, Miocene in age, ancestral to *Trichechus*, and probably identical with *Potamosiren*.
- x Pascual, Rosendo
1966. Datos preliminares sobre el primer resto de un sirenio (Dugongidae) del Mioceno superior ("Paranaense") de la Argentina. [Abstr.] *Ameghiniana*, 4(7): 242. May 1966 (read Jun. 24, 1965).
—Reports an upper molar similar to *Felsinotherium* but "tribosphenic" rather than bilopho-

- dont. This tooth was described by Reinhart (1976: 272–278) as *Metaxytherium* sp. indet.
- Passarge, Siegfried
1909. In: H.H.J. Meyer, *Das Deutsche Kolonialreich; eine Länderkunde der deutschen Schutzgebiete.... 1. Band. Ostafrika und Kamerun.* Leipzig & Wien, Verlag des Bibliographischen Instituts, 1–650.
–Sirs., 446.
- Paterson, Robert A.
1979. Shark meshing takes a heavy toll of harmless marine animals. *Austral. Fish.*, 38(10): 17–23. 8 tabs. 1 fig. Oct. 1979.
–Yearly totals of dugongs netted in Queensland, 1962–1978 (18–21).
- x Paterson, Robert A.
1990. Effects of long-term anti-shark measures on target and non-target species in Queensland, Australia. *Biol. Conserv.*, 52(2): 147–159. 2 tabs. 7 figs.
–Notes the danger of shark nets to dugongs, and gives yearly totals of dugongs netted in the Queensland anti-shark program, 1962–1988 (155–156).
- Patrick, Diane
1978. Will the mermaid disappear? *Amer. Humane Mag.*, May 1978: 44–46. 3 figs.
- Patte, Étienne
1925. Le kjøkkenmødding neolithique du Bau Tro à Tam Toa près de Dong-Hoi (Annam). *Bull. Serv. Archéol. Géol. Indochine*, 14(1):
- Patte, Étienne
1963. Présence de l'*Halitherium* dans l'Oligocene du Poitou. *Bull. Soc. Géol. France*, (7)4: 536–537. 1 pl.
–See Patte, 1974.
- x Patte, Étienne
1974. Une mystification. La prétendue présence d'*Halitherium* en Poitou. [Abstr.] *Bull. Soc. Géol. France*, (7)16(2), Suppl. No. 2: 24.
–Retracts the record of a *Halitherium* skull fragment from Saint-Georges-les-Baillargeaux published in Patte, 1963; the alleged locality was apparently fraudulent. The report of ribs from near Beaumont-sur-Oise, however, was correct.
- Patterson, Ewen K.
1939. The dugong hunters. *Walkabout*, 5(12): 43–44. 2 figs. Oct. 1, 1939.
–Dugong hunting in Torres Strait.
- Patton, Geoffrey W.: SEE ALSO Kadel, Dukeman, & Patton, 1991; Kadel, Morgan, & Patton, 1991; Kadel & Patton, 1992; Nabor & Patton, 1989; Weigle et al., 1988.
- Patton, Geoffrey W.
1980. *Studies of the West Indian manatee* (*Trichechus manatus*) in Tampa Bay (Florida): a technical report. Sarasota, Mote Marine Laboratory, vii + 52 + [16]. 9 tabs. 23 figs. June 18, 1980.
–Report of a study funded by the Tampa Electric Company.
- Patton, Geoffrey W.
1986. *Studies of the West Indian manatee: Anna Maria to Venice (Florida): a technical report.* Sarasota, Mote Marine Laboratory: iii + 24 + [10]. 3 tabs. 9 figs. + 1 tab. & 9 figs. in appendix. Jan. 25, 1986.
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1989. Port of the Islands manatee habitat characterization: final report. *Mote Mar. Lab. Tech. Rept.*, No. 148: i + 8 + [52]. 1 tab. 55 figs. Aug. 29, 1989.
- Patton, Geoffrey W.; & Gerstein, Edmund R.
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- Patton, Geoffrey W.; Kreckman, Todd A.; & Sprinkel, Jay
1987. *Studies of the West Indian manatee: Anna Maria to Venice (Florida).* Sarasota, Mote Marine Laboratory, iv + 37 + [9]. 6 tabs. 15 figs. + 9 figs. in appendix. Feb. 1987.
- Paula Couto, Carlos de: SEE ALSO Simpson & Paula Couto, 1981.
- x Paula Couto, Carlos de
1956. Mamíferos fósseis do Cenozóico da Amazônia. *Bol. Conselho Nac. Pesquisas*, No. 3: 1–121. 15 figs. 16 pls.
–Describes a ?Pleistocene skullcap from the Rio Juruá, Acre, Brazil, referred to *Trichechus* sp. and thought to be closer to *T. manatus* than to *T. inunguis* (5, 79, 95, 107).
- x Paula Couto, Carlos de
1967a. Estudos paleontológicos na Amazônia. *Atas do Simpósio sobre a Biota Amazônica*, Vol. 1 (Geociências): 11–34.
–A historical sketch of paleontology in the Brazilian Amazon. States that *Trachypleurotherium* Dilg (nomen nudum) probably came from the Early Miocene Pirabas Formation (16), and mentions ?Pleistocene sir. remains from Acre, Brazil (22, 26).
- x Paula Couto, Carlos de
1967b. Contribuição à paleontologia do estado do Pará. Um sirênio na formação Pirabas.

- Atas do Simpósio sobre a Biota Amazônica*, Vol. 1 (Geociências): 345–357. 3 figs.
–Engl. summ. Describes *Sirenotherium pirabensis* [sic], n.gen.n.sp., from the Early Miocene of Pará, Brazil, refers it to the Trichechidae, and compares it with other trichechids.
- Paula Couto, Carlos de
1974. Fossil mammals from the Cenozoic of Acre, Brazil. 1, Astrapotheria.
An. Congr. Brasil. Geol., No. 28, Vol. 2: 237–249.
- Paula Couto, Carlos de
1979. *Tratado de paleomastozoologia*. Rio de Janeiro, Acad. Bras. de Ciências, 1–590. 572 figs. Jun. 1979.
–Sirs., 477–484.
- Paula Machado, Francisco de: SEE Machado, Francisco de Paula.
- Paulli, Simon: SEE Boas & Paulli, 1925.
- Pávay, Elek
1871. Kolozsvár környékének földtani viszonyai. *Földt. Intézet. Évkön.*, 1: [pp.?].
- D Pavlova, Maria Vasilevna
1906. Nauchnye rezul'taty Russkoi Poliarnoi Ekspeditsii 1900–1903 gg., pod nachal'stvom barona E. V. Tollia. Otdiel C: Geologiya i paleontologiya, vyp. 1. Opisanie iskopaemykh mlekopitaliushchikh, sobrannykh Russkoi Poliarnoi Ekspeditsiei v 1900–1903 gg.
Mém. Acad. Sci. St.-Pétersbourg, (8)21(1): 1–41. 4 pls.
–French abstr.: *Bull. Acad. Sci. St.-Pétersbourg*, (5)24: 199–203. German transl. of relevant material: E.W. Pfizenmayer (1927: 492–494). Describes a tooth fragment of “*Elephas?*” (33–34, pl. 3) that was later made the type of *Desmostylus wollosovitschi* Pfizenmayer, 1927 and *Neodesmostylus primigenius* Khomenko, 1928. It is now regarded as a mammoth tooth.
- x Paz, Uzi; & Ilani, Giora
1976. Dugongs in the Gulf of Aqaba.
Israel Land & Nature, 1(2): 73–74. 1 fig. Jan. 1976.
–Reports dugongs seen or captured in 1971–1975 (all in Jun. or Jul.), including three caught off Ghardaka, Egypt, in 1975 and put on display in an aquarium.
- Peacock, George
1879. *Notes on the Isthmus of Panamá & Darien, also on the River St. Juan, lakes of Nicaragua, &c., with reference to a railroad and canal for joining the Atlantic and Pacific oceans*. Exeter, W. Pollard, vi + 96. Illus.
- Pearsall, J.
1966. Half-ton siren.
Texas Parks Wildl., 24(9): 26–27.
- Peary, Robert E.
1889. Across Nicaragua with transit and machéte.
Natl. Geogr. Mag., 1(3): 315–335. 3 figs. 1 map. Oct. 1889.
–Mentions the abundance of *T. manatus* in Nicaragua (318).
- x Pécaud, G.
1925. Contribution à l'étude de la faune sauvage de la colonie du Tchad (mammifères et oiseaux). *Bull. Soc. Rech. Congolaise*, No. 6: 46–108.
–Recognizes *Manatus Vogeli* from Lake Chad and the Chari R., together with *M. Senegalensis* from the Benué R. (48).
- Pechuël-Loesche, Eduard
1882. *Die Loango-Expedition ausgesandt von der Deutschen Gesellschaft zur Erforschung Aequatorial-Africas, 1873–1876. Ein Reisewerk in drei Abtheilungen... Abt. III, Erste Hälfte*. Leipzig, P. Froberg, 1–503.
- x Pedley, Ian
1979. *Winds of change: one hundred years in the Widgee Shire*. [Brisbane?], The Gympie Times. Mar. 1979.
–Includes a brief paragraph on the former dugong-oil industry at Tin Can Bay, Queensland (231).
- Pédroni, P.M.
1845. Ossements fossiles de la Gironde. 1er mémoire. *Actes Soc. Linn. Bordeaux*, 14: 74–111. 6 pls.
–Refers specimens from the Bordeaux area to *Manatus fossilis* and *M. Guettardi*.
- Peel, G.
1947. *Isles of the Torres Straits*. Sydney, Current Book Distributors, 1–139.
- Pekarskiy, Petr Petrovich
1867. [Petr Yakovlev's account of the sea cow on Bering Island. In: Section of Russian Language and Literature. Abstracts from minutes of meetings in September, October, November and December 1866.] *Zapiski Akad. Nauk* (St. Petersburg), 10(2): 151–187.
–In Russian. Latin transl.: J.F. Brandt (1868a: 295–296). Engl. transl.: Domning (1978b: 163–164). Includes the first publication of the excerpts from the diary of the mining engineer Yakovlev that described the hunting of *Hydrodamalis* as it was practiced on Bering Island in the winter of 1754–1755 (162–163, 183–186). Together with the slightly later account of Cherepanov (in Andreyev, 1948), these excerpts constitute the

only eyewitness descriptions of the sea cow subsequent to Bering's voyage.

Pekarskiy, Petr Petrovich

1869. Arkhivnuiya razuisvaniya ob izobrazhenii ne-sushchestvuyushchago nuinye zhivotnago *Rhytina borealis*. (So snimkom starinago izobrazheniya *Rhytina borealis*.) [Archival researches concerning pictures of the now nonexistent animal *Rhytina borealis*.]

Zapiski Akad. Nauk (St. Petersburg) 15, *Prilozhenie* [Suppl.], No. 1: 1–33. 6 figs. 1 pl.

–Reproduces for the first time and discusses the six small sketches that Steller himself drew in his manuscript to illustrate details of the anatomy of *Hydrodamalis* (1–13). (These are very crude, and not all of them are even identifiable.) Also reproduces the text of Steller's report to the Senate, Jul. 12, 1743 (13–28), and an extract from Sofron Khitrov's Bering Island journal (28–31). An Engl. transl. of the latter is found in Golder (1922: 236–238). Finally, Pekarskiy reproduces here (31–33) excerpts from a manuscript (possibly, he suggests, written by one Vasily Shilov) in which are described the uses made of the sea cow, especially the use of its hide for the construction of boats. A German transl. of this section is found in A. Brandt (1871: 24–26). The plate reproduces the drawing of the sea cow by Plenisner that appeared on Waxell's chart (see Stejneger, 1936: 512–513).

x Pelzeln, August von

1883. Brasilische Säugethiere. Resultate von Johann Natterers Reisen in den Jahren 1817 bis 1835.

Verh. Zool.-Bot. Ges. Wien, 33, *Beiheft*: 1–140.

–Manatees, 88–95. Includes Natterer's original description of *Manatus inunguis* [n.sp.], 89–93; though von Pelzeln regards the latter name as a junior synonym of *M. australis*. See also C.M. Diesing (1839).

Pendergast, David M.

1979. *Excavations at Altun Ha, Belize, 1964–1970. Volume 1*.

Toronto, Royal Ontario Museum, xi + 226. 6 tabs. 78 figs. 44 pls. 2 maps. Jun. 15, 1979.

–Describes and illustrates human figurine “probably” made of manatee bone (50).

Pennant, Thomas

1771. *Synopsis of quadrupeds*.

Chester, printed by J. Monk, xxv + 382. 32 pls.

–Allen 319. “Indian walrus” (= dugong), 338; manati, 351–358. Allen says, regarding the account of the “manati”: “A general account of the

Sirenians as then known, which were thought to constitute a single species. Pennant's references are here, however, mainly to Steller's Sea-Cow and the American Manatee.”

Pennant, Thomas

1781. *History of quadrupeds*.

London, B. White (2 vols.), Vol. 1: xxiv + 284; Vol. 2: 285–566.

–Allen 367. Ed. 3, 1793. *Sirs.*, 536–545: whale-tailed manati, 536–539; round-tailed manati, 540–544; sea ape, 544–545. Allen concluded: “The first is primarily Steller's Sea Cow; the second includes both the American and African Manatees; the last is a ... myth.” See also J.M. Bechstein (1800).

Pennant, Thomas

1784–1785. *Arctic zoology*.

London, printed by H. Hughs (2 vols.). Frontisp. 23 pls.

–Repr.: Arno Press, 1975. Reports a manatee stranding in the British Isles before 1785?

Percival, H. Franklin: SEE O'Shea et al., 1992.

x Pereira, Manoel Nunes

1941–1943. A pesca no Rio Purús.

A Voz do Mar, 20(178): 65–68; 20(179): 98–102; 20(180): 121–124; 20(181): 151–154; 20(182): 189–192; 20(183): 216–218; 23(186): 64–66. Feb. 1941; Mar.–Apr. 1941; May 1941; Jun. 1941; Jul.–Aug. 1941; Sep.–Oct. 1941; Dec. 1943.

–Describes in detail the processing of *T. inunguis* meat and hide in Brazil, mentions some aspects of hunting methods and natural history (gleaned from hunters), recommends improved methods of processing the hide, and urges certain restrictions on manatee hunting, including a complete ban during the supposed December–February calving season (100–102, 153–154, 218, 65).

x Pereira, Manoel Nunes

1944. O peixe-boi da Amazônia.

Bol. Minist. Agric. (Rio de Janeiro), 33(5): 21–95. 1 fig. 11 photos. 1 map. May 1944.

–Reset and republished as a monograph in 1945 (Manaus, D.E.I.P.-S.S.A.: 1–180. 1 fig. 13 photos. 1 map. Date “1947” on cover) and again in 1954 (Rio de Janeiro, Minist. Agric., Div. Caça e Pesca), with minor corrections, changes, and errors in the text, additional photographs, an expanded bibliography, and (on p. 62 of the 1954 ed.) a new footnote on vernacular names.

In this, the most significant work on *T. inunguis* published up to its time and Pereira's most important contribution on *sirs.*, he gives a detailed

account, including history of study (21–37), of the natural history and commercial exploitation of the Amazonian manatee (which he considers to be *T. manatus!*).

- x Pereira, Manoel Nunes
1954. A pesca na Amazônia. In: *Valorização econômica da Amazônia: subsídios para seu planejamento*. Rio de Janeiro, Dept. Impr. Nac. (vi + 476), 267–271.
–Part of a set of documents from a conference held in Rio de Janeiro, Sep.–Nov. 1951. States that the sale of fresh manatee meat and mixira in Amazonian markets has ceased (269), and recommends that reserves for manatees and other threatened species be created in Amazonia (271).
- x Pereira, Manoel Nunes
1956. *A Ilha de Marajó: estudo econômico-social*. Rio de Janeiro, Minist. Agric., Serv. Inform. Agrícola in cooperation with Div. Caça e Pesca do D.N.P.A. (Série Estudos Brasileiros No. 8), 1–153. Illus.
–Mentions the former hunting of manatees in Marajó (68).
- x Pereira, Manoel Nunes
1967. *Moron Guêta: um decameron indígena*. Rio de Janeiro, Editora Civilização Brasileira S.A., 1–840 in 2 vols. Illus.
–Mentions the occurrence of manatees in the lower Rio Branco and its tributaries in the Brazilian Amazon (23), and recounts a Tucuna legend of the origin of the manatee (467).
- Pereira, Manoel Nunes
1974. *Panorama da alimentação indígena: comidas, bebidas & tóxicos na Amazônia Brasileira*. Rio de Janeiro, Livr. São José: xv + 412.
–Manatee, 64, 235, 251–258.
- x Perkins, George A.
1848. [Account of a *Manatus* from West Africa.] *Proc. Boston Soc. Nat. Hist.*, 2: 198–199.
–Describes a small manatee captured in the Caracalla River, Liberia. The name *Manatus nasutus* is proposed for it in a footnote signed “J. W.” [Jeffries Wyman] (199); see J. Wyman (1848). (The extant type material is the skull lacking the mandible, MCZ 9368.) Interestingly, Perkins did not find any nails on the flippers; he also failed to recognize the respiratory diaphragm.
- Perkins, Lindsay Sanders: SEE Canova & Perkins, 1885.
- x Perrault, Claude
1733. Description anatomique d’un veau marin. *Mem. Acad. Sci. Paris*, 3(1): 187–200. Pls. 27–28.
–Treatise on the anatomy of a seal; compares and contrasts it with other animals, including the manatee (190–191, 193–194, 198–199).
- Perrier, Edmond
1920. *La terre avant l’histoire. Les origines de la vie et de l’homme*. Paris, La Renaissance du Livre (L’Évolution de l’Humanité, Synthèse Collective, Sect. 1, Vol. 1), xxviii + 414. 4 maps.
–Engl. transl., London & New York: xxiv + 345. 4 maps. 1925. *Sirs.*, 152, 229.
- x Perrin, William F.; & Kashiwada, Jerry V.
1989. Catalog of the synoptic collection of marine mammal osteological specimens at the Southwest Fisheries Center [La Jolla, California]. *NOAA Tech. Memorandum NMFS* (U.S. Dept. of Commerce) NOAA-TM-NMFS-SWFC-130: 1–19. June 1989.
–Lists one specimen of *T. manatus* from Florida (17).
- Perry, Allison: SEE Gunter & Perry, 1983.
- Perry, J.S.
1974. Implantation, foetal membranes and early placentation of the African elephant, *Loxodonta africana*. *Philos. Trans. Roy. Soc. London. B. Biol. Sci.*, 269(897): 109–135.
- Pershin, S.V.: SEE Sokolov, Pershin et al., 1986.
- x Pervaiz, Syed; & Brew, Keith
1986a. Purification and characterization of the major whey proteins from the milks of the bottlenose dolphin (*Tursiops truncatus*), the Florida manatee (*Trichechus manatus latirostris*), and the beagle (*Canis familiaris*). *Arch. Biochem. Biophys.*, 246(2): 846–854. 4 tabs. 6 figs. May 1, 1986.
–The major whey protein components of manatee milk are monomeric β -lactoglobulins; α -lactalbumin was not isolated during separation of the whey protein fraction.
- x Pervaiz, Syed; & Brew, Keith
1986b. Composition of the milks of the bottlenose dolphin (*Tursiops truncatus*) and the Florida manatee (*Trichechus manatus latirostris*). *Compar. Biochem. Physiol. A. Compar. Physiol.*, 84(2): 357–360. 1 tab.
–Milk from two manatees, which had been lactating for 30 weeks and 2 years, respectively, showed high levels of proteins and lipids (mostly triglycerides), 0.6% neutral sugars, 2% amino sugars, low levels of lactose, two possible oligosaccharides, and some α -lactalbumin activity.
- x Pervesler, Peter; & Roetzel, Reinhard
1991. Das Leichenfeld von Kühnring. In: F.F. Steininger & W.E. Piller (eds.), *Eggenburg am Meer:*

Eintauchen in die Erdgeschichte.

Katalogreihe des Krahuletz-Museums (Eggenburg, Austria), No. 12: 97–101. Figs. 12–13.

–Describes the occurrence of skeletons of *Metaxytherium krahuletzii* in the Early Miocene deposits near Eggenburg, Austria. The species is also mentioned and illustrated in other chapters of this exhibit guide (pp. 18, 40–41, 56, 93).

Pervesler, Peter, & Steininger, Fritz F.

1986. Die Seekuh *Metaxytherium krahuletzii*: Skelett eines 22 Millionen Jahre alten Meeressäugtieres aus Kühnring.

Katalogreihe des Krahuletz-Museums (Eggenburg, Austria), No. 7: 1–12. 6 figs.

Peters, C.B.: SEE Leatherwood et al., 1984.

x Peters, Karl F.

1867. Das Halitheriumskelet von Hainburg. *Halitherium Cordieri*, Christol sp. (*Manatus Cuvieri* ou fossilis, Blainv.; *Hippopotamus medius Cuvieri* var). *Jahrb. Geol. Reichsanst. Wien*, 17(2): 309–314. Pl. 7.

–?Notice: *Verh. Geol. Reichsanst. Wien*, 1867: 159? Describes a skeleton of *Halitherium Cordieri* (n. comb.; = *Metaxytherium medium*) from the ?Miocene of Austria, and compares it with other sirs., mainly *H. schinzii* and *Dugong*.

Peters, W.

1877. Über die von dem verstorbenen Prof. Dr. Reinhold Buchholz in Westafrika gesammelten Säugethiere.

Monatsber. Akad. Berlin, 1877: 469–485.

–Sirs., 485.

Peters, Wilhelm

1872. Note on the systematic name of the walrus.

Ann. Mag. Nat. Hist., (4)10: 151.

Peterson, Olof August

1912. Symposium on ten years' progress in vertebrate paleontology. *Artiodactyla*.

Bull. Geol. Soc. Amer., 23: 162–178.

–Sirs., 164.

x Petit, G.

1923a. Sur le dugong de Madagascar. Notes ethnographiques.

Bull. Mem. Soc. Anthropol. Paris, (7)4: 75–83.

–Interesting account of dugongs, dugong hunting, and native customs and myths connected with the dugong in the Indo-Pacific region.

Petit, G.

1923b. La répartition géographique et l'extinction des siréniens actuels.

Rev. Hist. Nat. Appliquée (Mamm.), 4: 161–173. Jun. 1923.

x Petit, G.

1924a. Notes sur les dugongs des côtes de Madagascar.

Bull. Mus. Natl. Hist. Nat. (Paris), 30(2): 124–127.

–Comments on the species of dugongs and their distribution; describes in detail their distribution in Madagascar; and notes that they feed mainly on *Cymodocea australis*, which they swallow nearly intact and without admixture of sand.

x Petit, G.

1924b. Remarques sur la lobation du rein des lamantins. *C.R. Acad. Sci. Paris*, 178: 244–246. Jan. 7, 1924.

–Concludes that external lobation of the manatee kidney increases with age, independent of species.

x Petit, G.

1924c. Sur la morphogénie du rein des siréniens.

C.R. Acad. Sci. Paris, 178: 2197–2200. Jun. 23, 1924.

–Discusses the morphology of the kidney in fetal and adult sirs.

Petit, G.

1924d. Le distribution géographique des siréniens.

C.R. Soc. Biogeogr. Paris, No. 6: 37–38.

x Petit, G.

1924e. Les mammifères marins de l'ordre des siréniens et la légende des sirènes.

L'Anthropologie (C.R. Séances Inst. Fr. Anthropol.), 34(3/4): 294–295. Jul. 1924 (read Mar. 19, 1924).

–Favors a sirenian origin for the mermaid legend; briefly responds to a question about whether manatees can venture ashore.

Petit, G.

1925a. Recherches anatomiques sur l'appareil génito-urinaire male des siréniens.

Arch. Morph. Gén. Exper. (Paris), No. 23: iv + 326. 74 figs.

Petit, G.

1925b. Remarques sur la distribution géographique des siréniens.

C.R. Assoc. Franç. Avance. Sci. (Paris), 48: 1002–1008.

–?Repr.: *C.R. Soc. Biogéogr. Congr. Liege*, 1924: 54–60.

Petit, G.

1925c. Protection de certains animaux marins et terrestres de Madagascar: dugongs, tortues, lemuriens.

Curr. Int. Prot. Nat. (Paris, 1923), Rapports vœux, réalisation: 102–107.

Petit, G.

1926. Siréniens et sirènes.

Tribune Madagascar, No. 1963. Dec. 30, 1926.

–Newspaper article?

Petit, G.

1927a. Contribution à l'étude de la morphologie externe des siréniens. (1re note.) Sur un dugong femelle

- capturé à Morombé (Madagascar).
Bull. Mus. Natl. Hist. Nat. (Paris), 33(5): 336–342.
- x Petit, G.
 1927b. Nouvelles observations sur la pêche rituelle du dugong [à] Madagascar.
Bull. Mem. Soc. Anthropol. Paris, (7)8: 246–250.
 –Detailed account of customs, beliefs, and taboos concerning the dugong in Madagascar.
- Petit, G.
 1928a. Les vertèbres cervicales des siréniens actuels.
Arch. Mus. Natl. Hist. Nat. (Paris), (6)3: 243–299. 28 figs. 2 pls.
- x Petit, G.
 1928b. Sur la synostose de l'axis et de la troisième vertèbre cervicale chez les lamantins.
Bull. Mus. Natl. Hist. Nat. (Paris), 34(6): 429–431. 1 fig.
 –Describes several cases of synostosis in *T. senegalensis*; mentions (431) a case of the same in *Halitherium schinzii*.
- Petit, G.
 1937. Therapeutique chez les pechiers (utilization de certaines parties du dugong).
Ocean-Serum., 22: 1–2.
- Petit, G.
 1955. Ordre des siréniens. In: P.-P. Grassé (ed.), *Traité de zoologie*, Vol. 17, Mammifères, Fasc. I. Paris, Masson & Cie, 918–1001.
- x Petit, G.; & Rochon-Duvigneaud, A.
 1929. L'oeil et la vision de l'*Halicore dugong* Erxl.
Bull. Soc. Zool. France, 54(2): 129–138. 1 fig. Read Feb. 26, 1929.
 –Comments on dugong sensory functions (129–133), and describes the eye of a specimen from Madagascar (133–136). Concludes that the dugong's vision is poorly adapted to water or darkness and is more or less farsighted when submerged, although the field of vision is wide.
- Petocz, R.G.
 1989. *Conservation and development in Irian Jaya. A strategy for rational resource utilization*. Leiden, E.J. Brill, xxii + 218. Illus.
- Petrie, Constance Campbell
 1932. *Tom Petrie's reminiscences of early Queensland (dating from 1837), recorded by his daughter*. Ed. 2. Brisbane, Queensland Book Depot; Sydney, Angus & Robertson Ltd., xvi + 323. Frontisp. 17 pls.
 –First ed.: Brisbane, Watson Ferguson & Co., 1904. Repr.: Hawthorn (Victoria), Lloyd O'Neill Pty. Ltd.: 1–319, 1975. Capture and cooking of dugongs (67–69).
- Petrishchev, B.I.: SEE Sokolov, Chernova et al., 1986.
- Petronievics, Branislav
 1923. Remarks upon the skulls of *Moeritherium* and *Palaeomastodon*.
Ann. Mag. Nat. Hist., (9)12: 55–61. 2 figs. Pl. 2. –Sirs., 58.
- x Petter, A.J.
 1977. Essai d'interprétation de la répartition des Ascaridoidea chez les mammifères.
Ann. Parasitol. Hum. Compar., 52(2): 151–158.
 –Engl. summ. Suggests that ascaridoid nematodes invaded and radiated in the Sirenia at the time of the latter's original evolution and diversification.
- Pewe, T.L.
 1975. Quaternary geology of Alaska.
U.S. Geol. Surv. Prof. Paper, 835: 1–145.
- Pezo Diaz, Roberto: SEE Klishin et al., 1990; Mukhametov et al., 1992.
- x Pfeffer, Pierre
 1963. Remarques sur la nomenclature du dugong, *Dugong dugong* (Erxleben) et son statut actuel en Indonésie.
Mammalia, 27(1): 149–151. Mar. 1963.
 –Discusses vernacular names, geographic distribution, food, hunting, and economic uses of dugongs in Indonesia, and superstitions concerning them.
- xD Pfizenmayer, E.W.
 1927. Ein Desmostylidenzahn von der neusibirischen Insel Kotelnyi.
Centralbl. Min. Geol. Pal., Abt. B: Geol. Pal., 1927(11): 492–496. 4 figs.
 –Describes *Desmostylus Wollosoiwitschi*, n.sp., on the basis of what is most probably a premolar of a Pleistocene elephant. See also M.V. Pavlova (1906) and J.P. Khomenko (1928a).
- Philip, Prince; & Fisher, J.
 1970. *Wildlife crisis*. New York, Cowles Book Co., Inc., 1–256.
- x Phillippo, Dr.
 1862. On the bifurcated heart of the manatee.
Edinburgh Med. Jour., 7(7): 684–685. Jan. 1862 (read Dec. 4, 1861, by James Young).
 –Describes the chambers, valves, and vessels of the heart, and theorizes that the adaptations seen are for the purpose of reducing pressure on the pulmonary circulatory system while the pulmonary circulation is impeded during a dive.
- Phillipps, Charles
 1974. Dugongs on Sabah's west coast.
Sabah Soc. Jour., 6(1): 42–43.
- Phillips, Craig
 1964. *The captive sea: life behind the scenes of the great modern oceanariums*.

Philadelphia, Chilton Co., 1-284.

—Pop. acc. of captive *T. manatus* at the Miami Seaquarium, with observations on weaning, external morphology, and drinking from a hose (26-30, 171-183).

x Phillips, Craig

1972. Housing requirements for manatees and dugongs. *Drum & Croaker*, Jul. 1972: 36-37. 1 fig.

—Makes recommendations concerning tank design, feeding, and suppression of algae.

xD Phillips, F. Jay; Welton, Bruce J.; & Welton, Joann

1976. Paleontologic studies of the Middle Tertiary Skooner Gulch and Gallaway Formations at Point Arena, California. In: A.E. Fritsche, H. Ter Best, Jr., & W.W. Wornardt (eds.), *The Neogene symposium*.

Proc. Soc. Econ. Pal. Min. (Pacific Sect. Ann. Meeting, San Francisco), 137-154. 5 figs. 5 pls.

—Reports *Desmostylus* and *Paleoparadoxia* from the Skooner Gulch Formation, considered to be Late Oligocene (?Zemorrian) in age (137, 152).

Phillips, W.W.A.

1927. Guide to the mammals of Ceylon. Part VII. Sirenia (the dugong).

Ceylon Jour. Sci., Sect. B, Zool. & Geol. (Spolia Zeylanica), 14(1): 51-55. Apr. 30, 1927.

Phillips, W.W.A.

1929. A checklist of the mammals of Ceylon.

Spolia Zeylanica, 15(2): 119-152. 1 map.

x Phipson, H.M.

1895. The occurrence of the dugong in the Indian seas. *Jour. Bombay Nat. Hist. Soc.*, 9(4): 489-490. Jun. 20, 1895.

—Reprints the dugong account of Thurston (1895), and records that a dugong skull from Mandvi in the Gulf of Cutch was presented to the Society in April 1893 by C.M. Sykes. This was apparently the same skull recorded as donated by Dr. Ardeshir Dadabhai, under contributions to the collections for May 1893 (*Jour. Bombay Nat. Hist. Soc.*, 8(2): 328, 1893).

Pia, Julius von

1937. Von den Walen des Wiener Miozäns. Kurze Uebersicht der Kenntnisse und Fragen.

Mitt. Geol. Ges. Wien, 29: 357-428. 56 figs.

—?Abstr.: *Sci. News Letter*, 34: 139?

Pia, Julius von; & Sickenberg, Otto

1934. Katalog der in den österreichischen Sammlungen befindlichen Säugetierreste des Jungtertiärs Österreichs und der Randgebiete.

Denkschr. Naturhist. Mus. Wien, Geol.-Pal. Reihe, 4: xvi + 544.

—A detailed and very useful catalog of the Neogene mammalian fossils held in Austrian

collections, including very small and obscure local ones. *Sirs.*, 403-416, 452-454, 464-470.

x Piccoli, Giuliano

1966. Segnalazione di un frammento di sirenio (*Prototherium*) nello stratotipo del Priaboniano.

Boll. Soc. Geol. Ital., 85(2): 349-353. 1 fig.

—Engl. summ. Describes the anterior part of the mandible of an immature *Prototherium* cf. *veronense*. Also notes the recent discovery of a skeleton in the Priabonian (Eocene) of Corlanzone, Italy.

Pick, Friedrich Karl

1907. Zur feineren Anatomie der Lunge von *Halicore dugong*.

Arch. Naturgesch., 73(1)(2): 245-272. 15 figs.

x Pickering, Sam M., Jr.

1970. Stratigraphy, paleontology, and economic geology of portions of Perry and Cochran quadrangles, Georgia.

Geol. Surv. Georgia Bull., 81: 1-49. Illus.

—States that "*Eosiren* sp.?" is common in the Clinchfield and rare in the Ocala and Twiggs formations [Eocene and ?Oligocene] (table 1, p. 20).

Pickford, Martin

1987. Recognition of an Early Oligocene or Late Eocene mammal fauna from Cabinda, Angola.

Rapp. Ann. Dépt. Géol. Minéral. Mus. R. Afr. Cent., 1985-86: 89-92. Illus.

—French & Flemish summs.

Pictet, François-Jules

1853. *Traité de paléontologie, ou histoire naturelle des animaux fossiles considérés dans leurs rapports zoologiques et géologiques*. Ed. 2.

Paris, J.B. Baillièrre, Vol. 1: xiv + 584. 110 pls. in atlas.

—First ed., Geneva, 4 vols., 1844-46? *Manatus*, 372.

Pietsch, Theodore W.

1991. Samuel Fallours and his "Sirenne" from the province of Ambon.

Archs. Nat. Hist., 18(1):1-25. 7 figs.

Pietzsch, K.

1963. *Geologie von Sachsen*.

Berlin.

—Mentions Middle Oligocene sir. bone and tooth fragments found near Böhlen, Germany, in 1929 and 1936.

x Piggins, David; Muntz, W.R.A.; & Best, Robin Christopher

1983. Physical and morphological aspects of the eye of the manatee *Trichechus inunguis* Natterer 1883: (Sirenia: mammalia [sic]).

Mar. Behav. Physiol., 9(2): 111-129. 3 tabs. 3 figs.

—Examination of gross ocular anatomy, retinal histology, visual pigment, ocular refraction, and visual behavior in 5 animals showed a primarily rod retina, high receptor:ganglion cell ratio, low refractive error (hyperopia) under water, pigment based on vitamin A1, a difference spectrum of lambda max at 505 nm, a retina suited to low light levels, moderate visual acuity at best, motion perception, and a low degree of binocular vision. These results are compared with previous studies of *T. manatus* and *Dugong*.

Pilleri, Georg: SEE ALSO Cigalla-Fulgosi & Pilleri, 1985.

x Pilleri, Georg

1986a. *The Cetacea of the western Paratethys (Upper Marine Molasse of Baltringen)*.

Ostermundigen (Switzerland), Brain Anat. Inst.: 1–70. 56 tabs. 5 figs. 40 pls.

—German & Italian summs. Gives measurements and illustrations of an Early Miocene sir. premolar from Baltringen, Germany, that had been misidentified as a cetacean (18, 22, pl. 5).

x Pilleri, Georg

1986b. *The Miocene Cetacea of the Pietra Leccese with special reference to the Cosimo de Giorgi Collection, Lecce*.

Ostermundigen (Switzerland), Brain Anat. Inst., 1–27. 7 tabs. 8 figs. 11 pls.

—Gives illustrations and measurements of rib fragments of Miocene sirs. from the Pietra Leccese, Italy (21–22, pl. 11).

Pilleri, Georg

1987. *The Sirenia of the Swiss Molasse with a descriptive catalogue of the fossil Sirenia preserved in Swiss collections*.

Ostermundigen (Switzerland), Brain Anat. Inst., 1–114. 36 tabs. 44 figs. 55 pls. 4 color pls.

—German summ. Describes *Metaxytherium aquitaniae*, n.sp. (Early Miocene, France), *M. krauhletzi excelsum*, n.subsp. (Early Miocene, Switzerland), and *Halitherium schinzi lareolensis*, n.subsp. (Oligocene, France). Also proposes (provisionally and therefore invalidly) the new name *Metaxytherium argoviense* for a skullcap from the Early Miocene of Switzerland. *Thelriope* and *Thelriopiinae* are introduced as replacement names for *Rhytidodus* [sic] Lartet and *Rhytiodiinae* [sic] Abel, respectively; however, this action is unnecessary and invalid (see Domning, 1989c).

Pilleri, Georg

1988a. The Pliocene Sirenia of the Po Basin (*Metaxytherium subapenninum* (Bruno) 1839). In: G. Pilleri, *Contributions to the paleontology of some Tethyan Cetacea and Sirenia (Mammalia)*.

Ostermundigen (Switzerland), Brain Anat. Inst.

(123 pp.), 45–103. 8 tabs. 4 figs. 22 pls.

—The entire volume contains six separate articles, the last three on sirs. (listed here as Pilleri, 1988a,b,c). This article synonymizes the Pliocene sirs. of Italy (*Cheirotherium subapenninum*, *Felsinotherium forestii*, and *F. gastaldii*) into a single species, *Metaxytherium subapenninum*.

Pilleri, Georg

1988b. Mandibular pathology in a fossil sirenid (*Metaxytherium* sp.) from Catalonia, Spain. In: G. Pilleri, *Contributions to the paleontology of some Tethyan Cetacea and Sirenia (Mammalia)*.

Ostermundigen (Switzerland), Brain Anat. Inst. (123 pp.), 105–107. 1 tab. 1 pl.

—German summ. This specimen was later made the holotype of *Metaxytherium catalaunicum* Pilleri, Biosca, & Via, 1989.

The third article in this volume reports a vertebra of *Eurhinodelphis* sp. from Catalonia that had been misidentified in a museum collection as *Metaxytherium cuvieri* (p. 41).

Pilleri, Georg

1988c. A skull of *Metaxytherium serresii* (Mammalia: Sirenia) from the Lower Pliocene of Montpellier. In: G. Pilleri, *Contributions to the paleontology of some Tethyan Cetacea and Sirenia (Mammalia)*.

Ostermundigen (Switzerland), Brain Anat. Inst. (123 pp.), 111–123. 4 tabs. 1 fig. 4 pls.

—German summ.

Pilleri, Georg

1988d. *Recent Sirenia in Swiss collections, with special reference to osteology and comparative neurology*.

Ostermundigen (Switzerland), Brain Anat. Inst., 1–121. 17 tabs. 18 figs. 29 pls. + 3 color pls.

—German summ.

Pilleri, Georg

1989. Endocranial cast of *Metaxytherium* (Mammalia: Sirenia) from the Miocene of Cerro Gordo, Almería, Spain. In: G. Pilleri (ed.), *Contributions to the paleontology of some Tethyan Cetacea and Sirenia (Mammalia) II*.

Ostermundigen (Switzerland), Brain Anat. Inst. (133 pp.), 103–113. 2 tabs. 1 fig. 2 pls.

—German summ. Repr., altered in format, in *Treballs Mus. Geol. Barcelona*, 1: 35–42, Oct. 1990 (with Spanish & German summs.).

Pilleri, Georg; Biosca, J.; & Via Boada, Luis

1989. *The Tertiary Sirenia of Catalonia*.

Ostermundigen (Switzerland), Brain Anat. Inst., 1–98. 30 tabs. 44 figs. 40 pls. + 2 colored pls.

—Spanish & German summs. Describes the new species *Prototherium solei* and *P. montserratense* from the Late Eocene of Spain, and *Metaxy-*

- therium catalaunicum* from the Middle Miocene of Spain.
- Pillieri, Georg; & Cigala-Fulgosi, Franco
1989. Additional observations on the Lower Serravallian marine mammals [sic] fauna of Visiano and the Stirone River (northern Apennines). In: G. Pillieri (ed.), *Contributions to the paleontology of some Tethyan Cetacea and Sirenia (Mammalia) II*. Ostermundigen (Switzerland), Brain Anat. Inst. (133 pp.), 63–85. 4 tabs. 20 figs. 2 pls.
–German summ.
- x Pilliet, Alex. H.
1890. Note sur la structure de l'estomac à poches multiples d'un lamantin (*Manatus Americanus*). *C.R. Soc. Biol. Paris*, 42 [= (9)2]: 450–453. Jul. 12, 1890.
–Describes the stomach and stomach glands of a young manatee.
- Pilliet, Alex. H.; & Boulart, R.
1895. L'estomac des cétacés. *Jour. Anat. Physiol.* (Paris), 22: 402–423.
- x Pilsbry, Henry A.
1916. The sessile barnacles (Cirripedia) contained in the collections of the U. S. National Museum; including a monograph of the American species. *U.S. Natl. Mus. Bull.*, 93: xi + 366. 76 pls.
–Reviews the manatee barnacles *Chelonibia manati* (265–266) and *Platylepas hexastylus* (284–287). Also describes two new subspecies of the former from sea turtles.
- Pilson, M.E.Q.; & Goldstein, E.
1972? Marine mammals. *Marine Publ. Ser. Univ. Rhode Island*, No. 2: 1–48. 1 tab. 2 maps.
- Pim, Bedford Clapperton Trevelyan; & Seeman, Berthold
1869. *Dottings on the roadside, in Panama, Nicaragua, and Mosquito*. London, Chapman & Hall, xvi + 468. Illus.
–Use of manatee meat, 375–377.
- x Pine, Ronald H.
1973. Mammals (exclusive of bats) of Belém, Pará, Brazil. *Acta Amazonica*, 3(2): 47–79. Aug. 1973.
–Portuguese summ. Summarizes reports of *T. inunguis* from the Belém area (74).
- x Pinheiro, Aurelio
1937. *Á margem do Amazonas*. São Paulo, Cia. Editora Nacional (Bibliotheca Pedagogica Brasileira, Série 5, Vol. 86): 1–223.
–Contains a vivid description of harpooning "*Manatus americanus*" from a small canoe in the Amazon (215–218).
- Pinto, C.G.C.
1970. Potencialidades ictiológicas na Amazônia. *R. Econ. BASA* (Belém), 1(1): 19–21. Sep.–Dec. 1970.
- xD Pinto da Silveira, Estanislau Kostka
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–Engl. summ. Discusses the phylogeny of the proboscidean, sir., and related lineages, and suggests that subungulates were derived from periptychid condylarths.
- x Pinto da Silveira, Estanislau Kostka
1975. The management of Caribbean and Amazonian manatees *Trichechus m. manatus* and *T. inunguis* in captivity. *Internatl. Zoo Yearbook*, 15: 223–226.
–Portuguese ?transl.: Pinto da Silveira (1988). Gives captive histories, including weights, lengths, and diets, of various manatees kept in Brazil at the Recife, Rio de Janeiro, and Belém zoos. The section on "Natural History" includes descriptions of mating in *T. inunguis* based on communications from Nunes Pereira, and a variety of statements on the life history of both species that are unsupported by data.
- Pinto da Silveira, Estanislau Kostka
1988. O manejo dos manatis do Caribe, *Trichechus m. manatus* Linné, 1758, e da Amazonia, *T. inunguis* (Natterer, 1883), em cativeiro e alguns aspectos de sua historia natural. *Bol. Fund. Brasil. Conserv. Nat.*, 23: 82–103. Illus.
–Engl. summ. Portuguese ?transl. of Pinto da Silveira (1975).
- Pinto de Lima, Régis: SEE ALSO Grubel da Silva, Paludo, et al., 1992.
- Pinto de Lima, Régis; Paludo, Danielle; Soavinski, Ricardo José; Grubel da Silva, Kleber; & Oliveira, Eunice Maria Almeida de
1992a. Levantamento da distribuição, ocorrência e status de conservação do peixe-boi marinho (*Trichechus manatus*, Linnaeus, 1758) no litoral nordeste do Brasil. *Peixe-Boi*, 1(1): 47–52. 1 tab. 5 figs.
- Pinto de Lima, Régis; Paludo, Danielle; Soavinski, Ricardo José; Oliveira, Eunice Maria Almeida de; & Grubel da Silva, Kleber
1992b. Esforços conservacionistas e campanhas de conscientização para a preservação do peixe-boi marinho (*Trichechus manatus*) ao longo do litoral nordeste do Brasil. *Peixe-Boi*, 1(1): 42–46.
- Pinto do Amaral, Ary Domingos: SEE Colares et al., 1992.

- Pires de Lima, Fernando de Castro
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- x Pirie, N.W.
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–Suggests the use of sirs. as sources of meat, pointing out that, unlike tapirs and hippos, they do not compete with terrestrial herbivores (31).
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- x Pirlot, Paul; & Kamiya, Toshiro
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–German summ. Describes the gross features, biometrics, and encephalization of the dugong brain, and makes crude comparisons of its “evolutionary level” with those of other mammals (especially dolphins). Concludes that the dugong exhibits an “average degree” of evolutionary progression.
- Piso, Willem (= Guilherme)
1948. *História natural do Brasil ilustrada...*
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- Pitot, Albert
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Port Louis, Coignet Frères & Cie, iii + 372 + xv. 20 pls.
- x Pitou, Louis-Ange
1805. *Voyage à Cayenne, dans les deux Amériques, et chez les antropophages*.
Paris, published by the author, 2 vols. Illus.
–Gives a brief general account of the manatee and its supposed habits (2: 259–260).
- Pivert, Elie Clément Victorin
1925. *Mes chasses en Afrique et en Extrême-Orient*.
Gand, Editions Cultura, 1–172. Illus.
- x Pledge, Neville S.
1992. First record of fossil sirenians in southern Australia.
Fossil Collector Bull., No. 37: 6. May 1992.
–Reports a fragment of a sir. mandible, “probably referable to *Dugong*,” from the Early Pliocene Sunlands Local Fauna, Loxton Sands, Waikerie area, South Australia.
- D Pleshakov, I.B.
1940. Discovery of a tooth of *Desmostylus* in Kamchatka.
C.R. (= Doklady) Acad. Sci. URSS (Moscow), 28(4): 373–376. 2 figs. Aug. 10, 1940.
- x Poche, Richard
1973. Niger’s threatened Park W.
Oryx, 12(2): 216–222. 3 tabs. 1 fig. Oct. 1973.
–States that *T. senegalensis* is “now extinct” in Niger (218).
- Pocock, Reginald Innes
1916. Discussion on the “Biologia Centrali-Americana.”
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- x Pocock, Reginald Innes
1940. Some notes on the dugong.
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–Comments briefly on dugong distribution and species nomenclature; describes in detail individual, sexual, and geographic variation in tusks; briefly describes age variation in cheek teeth and in closure of cranial sutures; presents measurements of 25 skulls; and contrasts the morphology of the scapula in *Dugong* and *Trichechus*, showing that some British Museum specimens had been misidentified.
- Poeppig, Eduard Friedrich
1835–1836. *Reise in Chile, Peru, und auf dem Amazonenstromen während der Jahre 1827–1832*.
Leipzig, F. Fleischer, 2 vols. + atlas of 16 pls.
–Discusses *Manatus australis*, 373.
- Pohle, Hermann
1921. Über den physiologischen Zahnausfall.
Sitzb. Ges. Naturf. Freunde Berlin, 1921: 115–122. Figs.
–Sirs., 116.
- Poisson, H.
1949. Le biotope à cymodocées à Madagascar.
Naturaliste Malgache (Tananarive), 1(1): 11–25. 2 pls.
- x Pollock, H.E.D.; & Ray, Clayton Edward
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Current Repts. Dept. Archaeol., Carnegie Inst. Wash., No. 41: 633–656.
–P. 644: {“Manatee / The carved rib of a manatee represents the only bone of this animal in our collections.”}
P. 653: {“Three teeth of tapir, a single bone of spider monkey, and a single rib of manatee are obvious imports to Mayapan [in Yucatan, Mexico].”}
- Pomet, Pierre
1594. *Histoire generale des drogues, traitant des plantes, des animaux, & des mineraux; ouvrage enrichy de plus de quatre cent figures en*

taille-douce tirées d'après nature; avec un discours qui explique leurs differens noms, les pays d'où elles viennent, la maniere de connoître les veritables d'avec les falsisiées, & leur proprieté, où l'on découvre l'erreur des anciens & des modernes; le tout tres utile au public.

Paris, Jean-Baptiste Loyson & Augustin Pillon; et au Palais, Estienne Ducastin, 1-16; part i, 1-304; part ii, 1-108; part iii, 1-116. Illus.

-Allen 26. Manatee, part ii, chap. 35: 82-84, fig. Allen says: "The figures are very curious, as is also the text... The figure of the Manatee is apparently copied from an earlier design."

Pompeckj, Josef Felix

1925. *Umwelt, Anpassung und Beharrung im Lichte erdgeschichtlicher Überlieferung.*

Rede zum Antritt des Rektorats der Friedrich-Wilhelms-Universität zu Berlin, 1-24. Oct. 15, 1925.

-Sirs., 10.

Ponce, Alonso: SEE Noyes, E., 1932.

Poole, D.F.G.

1967. Phylogeny of tooth tissues: enameloid and enamel in Recent vertebrates, with a note on the history of cementum. In: A.E.W. Miles (ed.), *Structural and chemical organization of teeth.*

New York & London, Academic Press, Vol. 1: 111-149. 40 figs.

-Sirs., 139.

Poonai, N.O.: SEE Hanif & Poonai, 1968.

Popov, V.V.: SEE ALSO Klishin et al., 1990.

Popov, V.V.; & Supin, A. Ya.

1990. Electrophysiological studies of hearing in some cetaceans and a manatee. In: J.A. Thomas & R.A. Kastelein (eds.), *Sensory abilities of cetaceans: laboratory and field evidence.*

NATO Adv. Sci. Inst. Ser., Ser. A, Life Sci. (New York, Plenum Press), 196: 405-415.

Popovici, Nicolae: SEE Nicorici & Popovici, 1984.

Popovici, Z.; & Angelescu, V.

1954. La economia del mar y sus relaciones con la alimentacion de la humanidad.

Publ. Ext. Cult. Didact. Mus. Argent. Cienc. Nat. "Bernardino Rivadavia," No. 8 (2 vols.). Vol. 1 (Mammals): 513-549.

Popp, James A.: SEE Cardeilhac et al., 1981; Irvine et al., 1980.

x Por, F.D.

1972. A sea cow captured near Elat.

Sci. Notes Heinz Steinitz Mar. Biol. Lab., Hebrew Univ. Jerusalem (Elat), No. 2: 12-13. 1 fig. Apr. 1972.

-Also publ. as "Second Report of the H. Steinitz Marine Biological Laboratory at Elat, July 1971-September 1972," Dec. 1972. Reports an adult

male dugong drowned in a fishing net near El Hamira Bay on the east coast of Sinai on June 20, 1970; measurements given.

Porrás, J.: SEE Boher & Porrás, 1991.

Portell, Roger W.: SEE Ivany et al., 1990.

x Portis, Alessandro

1886. Catalogo descrittivo dei Talassoterii, rinvenuti nei terreni terziari del Piemonte e della Liguria.

Mem. Acad. Sci. Torino, (2)37: 247-365. Pls. 1-9.

-Summarizes records of *Felsinotherium subapenninum* and *F. Gastaldii* in the Piemontese Pliocene, Italy (356-360).

Portlock, Nathaniel: SEE Stanbury, P.J., 1978.

Pouit, D.: SEE Ginsburg et al., 1979.

Poulter, Thomas C.

1968. Marine mammals. In: T.A. Sebeok (ed.), *Animal communication. Techniques of study and results of research.*

Bloomington, Indiana Univ. Press (xviii + 686), 405-465.

Powell, James Arthur, Jr.: SEE ALSO Campbell & Powell, 1976; Etheridge et al., 1985; Kochman et al., 1983, 1985; Lefebvre & Powell, 1990; Rathbun et al., 1983; Scott & Powell, 1982.

x Powell, James Arthur, Jr.

1978. Evidence of carnivory in manatees (*Trichechus manatus*).

Jour. Mamm., 59(2): 442. May 30, 1978.

-Describes fish-eating by captive Florida manatees and the removal of fish from gill nets by wild manatees in Jamaica. Only the flesh of the fish was eaten; the bones were left behind.

x Powell, James Arthur, Jr.

1981. The manatee population in Crystal River, Citrus County, Florida. In: R.L. Brownell, Jr., & K. Ralls (eds.), *The West Indian manatee in Florida. Proceedings of a workshop held in Orlando, Florida 27-29 March 1978* (q.v.).

Tallahassee, Florida Dept. Nat. Res. (iv + 154), 33-40. 5 tabs. 1 fig.

-Repr. in J.M. Packard (1983c: 125-132). Describes manatees' use of Crystal River as a warm-water winter refugium, based on aerial and boat surveys, 1967-1978; the sex and age composition of the population; the number of known individuals resighted in successive winters; and the calving intervals of known females. Age at first conception is estimated at 7-8 years, calving interval at either 2.5 or 5 years.

Powell, James Arthur, Jr.

1983. Mermaids, very special animals.

The Fund for Animals Ltd. Newsletter (Australia), 3(1): 12. 1 fig. Mar. 1983.

- x Powell, James Arthur, Jr.; Belitsky, David W.; & Rathbun, Galen B.
1981. Status of the West Indian manatee (*Trichechus manatus*) in Puerto Rico. *Jour. Mamm.*, 62(3): 642-646. 2 tabs. 1 fig. Aug. 20, 1981.
—Reports that aerial surveys in Puerto Rico in 1976-1979 counted up to 51 manatees; gives notes on their occurrence in and drinking of fresh water, their preference for calm waters, and their mortality in fishing nets. The manatee population is said to be "small and widely distributed."
- Powell, James Arthur, Jr.; & Rathbun, Galen B.
1984. Distribution and abundance of manatees along the northern coast of the Gulf of Mexico. *Northeast Gulf Science*, 7(1): 1-28. 8 tabs. 15 figs. Jul. 31, 1984.
—An earlier version of this paper was publ. in J.M. Packard (1983c: 1-68), with a different fig. 4 and an additional fig. ("Fig. 6") included. Reviews historical and recent records of *T. manatus*, including aerial survey and carcass salvage data, emphasizing the southern Big Bend coast of northwestern peninsular Florida. Numbers of manatees have decreased in Texas but increased in the northeastern Gulf. The influences of temperature, sources of warm and fresh water, and food on manatee seasonal movements in the area are discussed, and they are used to explain the patterns of manatee use of different rivers in the Big Bend area and the increase in manatee population of this area compared with other parts of Florida. Concludes that the southern Big Bend coast offers the best long-term hope for manatee survival in the U.S.
- x Powell, James Arthur, Jr.; & Waldron, John C.
1981. The manatee population in Blue Spring, Volusia County, Florida. In: R.L. Brownell, Jr., & K. Ralls (eds.), *The West Indian manatee in Florida. Proceedings of a workshop held in Orlando, Florida 27-29 March 1978* (q.v.). Tallahassee, Florida Dept. Nat. Res. (iv + 154), 41-51. 4 tabs. 5 figs.
—Describes manatees' use of Blue Spring as a warm-water winter refugium, based on observations from 1971 to 1978, including number of manatees present as a function of temperature, daily attendance of known individuals, population composition, number of known individuals resighted in successive years, reproductive data, feeding behavior, distribution in the St. Johns River south of Lake George, and existing protective measures. A preponderance of males in the upper St. Johns River is documented, and calving intervals of 3 and 4 years are reported for one female. The primary local food source appears to be *Eichhornia*, though *Vallisneria* is preferred.
- Prasad, M.R.N.
1974. *Handbuch der Zoologie. Ein Naturgeschichte der Stämme des Tierreiches. Band 8, Mammalia, Lief. 51: Männliches Geschlechtsorgane.* Berlin & New York, Walter De Gruyter, 1-150.
- x Prater, S.H.
1928. The dugong or sea cow (*Halicore dugong*). *Jour. Bombay Nat. Hist. Soc.*, 33(1): 84-99. 4 pls. Sep. 30, 1928.
—Fairly detailed gen. acc., mostly assembled from other authors, of dugongs and other sirs.
- x Prater, S.H.
1929. How the female dugong carries her young. *Jour. Bombay Nat. Hist. Soc.*, 33(4): 987. Oct. 15, 1929.
—Notes on Andaman and Indian dugongs, with the affirmation that, according to fishermen, dugongs do hold their young with the flippers.
- Prater, S.H.
1965. *The book of Indian animals.* Revised ed. Bombay, Bombay Nat. Hist. Soc. & Prince of Wales Museum of Western India.
—Local names, status, and general biology of the dugong, 304-317.
- Prather, Robert: SEE ALSO Oberheu & Prather, 1979.
- Prather, Robert
1980. Manatee protection takes joint effort. *Florida Conserv. News* (Florida Dept. Nat. Resources), 15(6): 6-7. 3 figs. + 1 fig. on p. 3. Mar. 1980.
—See also Appendix 1.
- Pratt, Ann E.: SEE Morgan & Pratt, 1983.
- x Pratt, Richard M.
1971. Lithology of rocks dredged from the Blake Plateau. *Southeastern Geol.*, 13(1): 19-38. 6 figs. May 1971.
—Reports fragments of fossil sirs, probably of Miocene age, dredged from the sea floor off the southern Atlantic coast of the U.S. (27, 31-33).
- Preen, Anthony R.: SEE ALSO Slade et al., 1989.
- Preen, Anthony R.
1987. Dugong (*Dugong dugon*). In: C. Gross, *Mammals of the southern Gulf.* Dubai, Shell Oil Co. & Motivate Publishing (Arabian Heritage Series) (80 pp.), 74-75. 4 figs. Nov. 1987.
- Preen, Anthony R.
1988. Dugongs of Arabia. *Jour. Saudi Arab. Nat. Hist. Soc.*, 2(8): 43-48. 2 figs. Read Oct. 3, 1987.

–The author notes that “this article is not *written* by me, but based on notes taken by someone else during a talk I gave. Hence it is full of errors and incorrect inferences” (A.R. Preen, pers. commun.).

x Preen, Anthony R.

1989a. The status and conservation of dugongs in the Arabian region.

MEPA Coastal & Marine Management Series (Meteorological & Environmental Protection Administration, Saudi Arabia), *Rept.*, No. 10, Vol. 1: xix + 200. 33 tabs. 34 figs. 18 photos. 11 appendices. Jan. 1989.

–Arabic summ. Vol. 2: Preen et al. (1989). Describes the environments of the Arabian Gulf and Red Sea; describes the methods and results of aerial surveys, interview surveys, carcass salvage, radiotracking, and seagrass surveys undertaken on both coasts of Saudi Arabia and adjacent countries; presents measurements of skulls from the Arabian Gulf and compares them with Indian and Australian samples, concluding that the Gulf population may be genetically isolated; discusses the traditional significance, present distribution and abundance, and environmental determinants of status and biology of dugongs in the Arabian region; and outlines human-related threats to dugongs in the region. Dugongs are no longer hunted but are frequently taken in gill nets and other fishing gear, and are seriously threatened by oil pollution and habitat destruction. The estimated Arabian Gulf population is 7310 ± 1300 , making this the most important dugong area known outside Australia. Dugongs occur mainly in the southern and western Gulf and are probably limited in distribution by low winter temperatures. The estimated Red Sea population is up to 4000 (both coasts), with a patchy distribution. The estimated sustainable mortality may suffice to accommodate the accidental catch in the region, but active conservation is still needed.

x Preen, Anthony R.

1989b. Observations of mating behavior in dugongs (*Dugong dugon*).

Mar. Mamm. Sci., 5(4): 382–387. 1 fig. Oct. 1989.

–Describes behaviors related to mating (“splashing,” “following,” “fighting,” and “mounting”) observed in dugong herds in Moreton Bay, Queensland, and compares these observations with other published accounts of dugong and manatee sexual behavior. Concludes that dugongs

compete more violently for estrous females than do manatees.

Preen, Anthony R.

1991. Amorous antics in Moreton Bay.

Austral. Geogr., No. 21: 55. 1 fig. Jan.–Mar. 1991.

–Sidebar to Marsh (1991). Pop. acc. of dugong mating herds.

x Preen, Anthony R.; & Heinsohn, George Edwin

1983. Diving with dugongs.

Habitat Austral., 11(4): 20–21. 4 figs. Aug. 1983.

–Comprises one aerial and 3 underwater photos of dugongs in Moreton Bay, Queensland, and in Shark Bay, Western Australia, respectively.

x Preen, Anthony R.; Marsh, Helene D.; & Heinsohn, George Edwin

1989. Recommendations for the conservation and management of dugong in the Arabian region.

MEPA Coastal & Marine Management Series (Meteorological & Environmental Protection Administration, Saudi Arabia), *Rept.*, No. 10, Vol. 2: iv + 43. 3 figs. 4 maps. Jan. 1989.

–Vol. 1: Preen (1989a). Gives a summary and timetable for conservation actions proposed (1–3), discusses the international significance of dugongs in the region and the threats they face (5–6), presents the recommendations in detail (7–15), describes each of 12 areas recommended for protection (17–23), maps areas specially at risk from oil spills (25–27), provides instructions and data sheets for identifying stranded marine mammals (31–39; in Engl. & Arabic), and offers advice on the design and conduct of aerial surveys in the Arabian Gulf and Red Sea (41–42).

Pregill, Gregory K.: SEE Watters et al., 1984.

Prévost, Antoine François

1747. Sierra-Leona, par Atkins. In: *Histoire générale des voyages, ou nouvelle collection de toutes les relations de voyages par mer et par terre, qui ont été publiées jusqu'à présent dans les différents langues de toutes les nations connues: contenant ce qu'il y a de plus remarquable, de plus utile, et de mieux, averé dans les pays où les voyageurs ont pénétré...*

Paris, Didot (20 vols., 1746–91), Vol. 3: 239–252.

–Allen 240. External characters and mode of capture of the manatee, based on J. Atkins (1735) (240–241, 315–316 [?]).

Price, Andrew: SEE Sheppard et al., 1992.

Price, Emmett W.

1932. The trematode parasites of marine mammals.

Proc. U.S. Natl. Mus., 81(13)(2936): 1–68. 12 pls. Oct. 1, 1932.

—Sirs., 42–44, 47–55, 58–59.

Priem, Fernand

1908. Sur des vertébrés de l'Éocène d'Égypte et de Tunisie.

Bull. Soc. Géol. France, (4)7(7–8): 412–419. 2 figs. Pls. 15–16. (Read Nov. 18, 1907; publ. Mar. 1908.)

—Abstrs.: *C.R. Soc. Géol. France*, 1907: 125; *Bull. Inst. Égypte*, (5)11: 1–3, 1908? Describes a mandible from the upper Mokattam beds and refers it to *Protosiren Fraasi* Abel (417–418, pl. 16).

Priest, Renee

1983. Manatee mortality.

Florida Naturalist, 56(2): 14. Jun. 1983.

x Prieur, A.; & Guérin, Claude

1991. Découverte d'un site préhistorique d'abatage de dugongs à Umm al-Qaiwain (Emirates Arabes Unis).

Arabian Archaeol. Epigr. (Copenhagen), 2(2): 72–83. 6 figs. Jun. 1991.

—Engl. summ. Describes a midden site with numerous dugong bones, dating from the 5th–4th millennium B.C.

Prince, Robert I.T.: SEE ALSO Anderson & Prince, 1985.

x Prince, Robert I.T.

1986. Dugong in northern waters of Western Australia 1984.

Dept. of Conservation & Land Management Western Australia, Tech. Rept., No. 7: vi + 38. 6 tabs. 13 figs. Mar. 1986.

—Aerial-survey results show that Exmouth Gulf is an important dugong habitat, but the coastline farther north has only a sparse dugong population that probably cannot sustain the present level of Aboriginal hunting. A traditional method of taking dugongs “by hand” is mentioned but not explained. Also describes and illustrates representative seagrass beds of the region.

Prince, Robert I.T.

1988. Traditional knowledge of the marine environment, fisheries, and conservation of marine wildlife—Western Australian perspective. In: F. Gray & L. Zann (eds.), *Traditional knowledge of the marine environment in northern Australia*. Proceedings of a workshop held in Townsville, Australia, 29 and 30 July 1985.

Great Barrier Reef Marine Park Authority Workshop Ser., No. 8: 116–119.

x Prince, Robert I.T.; Anderson, Paul K.; & Blackman, D.

1981. Status and distribution of dugongs in Western Australia. In: H. Marsh (ed.), *The dugong. Proceedings of a seminar/workshop held at James Cook University of North Queensland 8–13 May 1979* (q.v.).

[Townsville (Australia)], James Cook Univ. (vii + 400), 67–87. 3 tabs. 3 figs.

—Reports results of aerial surveys, describes environmental conditions in Shark Bay, and discusses prospects for dugong conservation in Western Australia, where dugongs are still abundant and relatively undisturbed. Shark Bay is considered to have unrivalled potential as a dugong study site.

Pritchard, Peter C.H.: SEE Brownell & Ralls, 1981.

Proby, K.H.

1974. *Audubon in Florida, with selections from the writings of John James Audubon*.

Coral Gables (Florida), Univ. Miami Press, 1–384.

—Manatee, 328–329.

x Promus, John

1937. Netting dugong.

Walkabout, 3(5): 40–41. 2 figs. Mar. 1, 1937.

—Describes the techniques used for netting dugongs in Queensland and preparing their oil. Also mentions that sharks attack dugong herds, which protect the calves at the center of the herd, and states that “a bull dugong has been seen to disembowel a shark” with his tusks!

D Pronina, I.G.

1957. [A new desmostylid, *Kronokotherium brevimaxillare* gen. nov., sp. nov., from Miocene deposits of Kamchatka.]

C.R. (= Doklady) Acad. Sci. URSS (Moscow), 117(2): 310–312. 1 tab. 2 figs.

—In Russian.

Proskouriakoff, Tatiana

1962. The artifacts of Mayapan. In: H.E.D. Pollack, R.L. Roys, T. Proskouriakoff, & A.L. Smith (eds.), *Mayapan, Yucatan, Mexico*.

Carnegie Inst. Washington Publ., 619: 321–515.

—Worked manatee rib, 376.

Prothero, Donald R.; Manning, Earl M.; & Fischer, Martin S.

1988. The phylogeny of the ungulates. In: M.J. Benton (ed.), *The phylogeny and classification of the tetrapods*. Vol. 2: Mammals.

Systematics Assoc. Spec. Vol., 35B: 201–234. Illus.

x Provancha, Jane A.; & Hall, Carlton R.

1991. Observations of associations between seagrass beds and manatees in east central Florida.

Florida Scientist, 54(2): 87–98. 5 tabs. 3 figs. Spring 1991.

—Exclosure experiments in a *Syringodium*-dominated seagrass bed in the north Banana R. showed that seagrass cover was reduced by about 90% by manatee grazing. Evidence of rooting was noted only occasionally.

- x Provancha, Jane A.; & Provancha, M.J.
 1988. Long-term trends in abundance and distribution of manatees (*Trichechus manatus*) in the northern Banana River, Brevard County, Florida. *Mar. Mamm. Sci.*, 4(4): 323-338. 3 tabs. 5 figs. Oct. 1988.
 -Presents aerial survey and habitat data and discusses factors influencing manatee distribution, including boat traffic, seasonal movements, and availability of fresh water and food. Concludes that no other area on the east coast of Florida has as much legally protected suitable habitat for manatees as the northern Banana River, and that the manatee aggregations there are probably both socially-based and resource-based.
- Provancha, M.J.: SEE Provancha, Jane A.
- Prudhomme ("L..... M.... B....")
 1798? *Voyage à la Guiane et à Cayenne, fait en 1789 et années suivantes....*
 Paris, chez l'Éditeur, x + 400. 4 pls.
 -Publ. in "An VI de la République." Manatee, 325.
- Prychodko, William: SEE Shoshani et al.
- Pucheran, Jacques; & Jacquinet, Honoré
 1853. Mammifères et oiseaux. In: *Voyage au Pôle Sud et dans l'Océanie sur les corvettes l'Astrolabe et la Zélée, exécuté par ordre du Roi pendant les années 1837-1838-1839-1840, sous le commandement de M. J. Dumont d'Urville.... Zoologie, Tome III.*
 Paris, Gide, 1-166. 29 pls. in atlas.
 -Depicts *Halicore dugong*, pls. 20-21.
- Puckett, Catherine: SEE ALSO Packard, J.M., 1983a.
- x Puckett, Catherine
 1983. Interviews with Citrus County residents regarding manatee protection. In: J.M. Packard (ed.), Proposed research/management plan for Crystal River manatees. Volume III. Compendium (q.v.). *Florida Coop. Fish & Wildlife Res. Unit, Tech. Rept.*, No. 7, Vol. 3 (iii + 346): 321-346. 4 tabs. Dec. 1983.
 -Summarizes results of informal interviews with businesspeople and commercial fishermen, showing strong resistance to additional regulations on waterborne activities and a need for better public education regarding manatees. Also includes data on businesses in the Crystal River area that benefit from manatees, on local news coverage of manatees, and on support for purchase of a manatee sanctuary in Kings Bay.
- Puddicombe, R.A.: SEE Tucker & Puddicombe, 1988.
- Purchas, Samuel
 1625. *Hakluytus posthumus or Purchas his pilgrimes. Contayning a history of the world, in sea voyages, & lande-travells, by Englishmen & others. Wherein Gods wonders in nature and providence, the actes, arts, varieties, & vanities of men, with, a world of the worlds, rarities, are by a world of eyewitness-authors, related to the world.... In fower parts. Each containing five bookes.*
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- x Pütter, August
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 -P. 221: [{"Wahrscheinlich hat auch Steller's Seekuh ein derartiges Gewicht [2-3 tons] gehabt."}]
- Pycraft, William Plane
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- x Pycraft, William Plane
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Q

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- x Qiu, You-xiang
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 –In Chinese. Describes the captive facilities and diet of two *T. manatus* from Mexico kept in Beijing for the past 8 years. Mentions the births of two calves of this pair, of which one died. Also describes the treatments given for several bacterial infections.
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 –In Chinese.
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 –Manatees in the Corantijn and Neuker (= Nickerie) rivers, 107–109. Husson (1978: 335) suggested that the “Wassermenschen” described by Quandt (104, 107) might have been giant otters (*Pteronura*) rather than manatees.
- Queirós, João de S. José
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 –According to Veríssimo (1895: 100), this is the earliest mention of the use of fat or oil of Amazonian manatees.
- Quintero, Hector: SEE Freeman & Quintero, 1990.
- Quiring, D.P.
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- Quoy, Jean René Constant; & Gaimard, Joseph
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 –Sirs., 143, pl. 27. Sir. material in vol. 2 also?

R

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- x Rabell Cabrero, Narciso
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 –Describes an axis and a scapula of an “aquatic mammal” [sir.] from the “Salto de Collazo,” 5 km east of San Sebastián, Puerto Rico [San Sebastián Formation, Oligocene]. A mandible, “cúbito,” and other bones are also mentioned but not described.
- x Radhakrishnan, C.V.; & Bradley, R.E.
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- Radwański, Andrzej: SEE ALSO Czyżewska & Radwański, 1991.
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- x Raffles, Thomas Stamford
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Philos. Trans. Roy. Soc. London, 110(2)(13): 174–182. 1 tab. Read May 18, 1820.
 –Allen 593. ?Extract: *Philos. Mag.*, 57: 341–346, 1821 (Allen 607). German transl.: *Froriep's Notizen*, 1(8): 113–117, Sep. 1821 (Allen 608).
Rev.: *Ann. Philos.*, 16: 52–53. Describes the gross anatomy (external and internal), habits, and hunting of the dugong at Singapore and native customs connected with it. Includes a table of measurements of one specimen (181–182).
 An afterword by Everard Home (182) notes that Raffles' communication was accompanied by an account of the dugong stomach in French, forming part of a memoir by Diard and Duvaucel, two French naturalists employed by Raffles (see Diard & Duvaucel, 1820). This account of the stomach was not published.
- Raffles, Thomas Stamford
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- x Rafinesque, Constantine Samuel
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 –Groups sirs. with pinnipeds in the order “Amphibia.” *Dugong* is considered synonymous with *Odobenus* and placed in the family “Tetropia” (= pinnipeds); the remainder of the Sirenia are represented by the family “Diopia,” comprising *Manatus* and the new but unexplained and undiagnosed nominal genus *Nemodermus* (nomen nudum) (60).
- Raine, H.B.: SEE Ritchie, P.H., 1934.
- Raine, T.
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- x Rainey, William E.
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 [Townsville (Australia)], James Cook Univ. (vii + 400), 240–247.
 –Describes techniques for collection and handling

- of blood and other tissue samples.
- x Rainey, William E.; Lowenstein, Jerold M.; Sarich, Vincent M.; & Magor, Diana Marion
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–Analysis of bone extracts and serum albumins supports the phyletic branching pattern of the five Recent sir. species derived from the fossil record, but argues for more recent branching points than the fossils suggest.
- Raj, Sundra
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- Raleigh, Walter
1596. The discoverie of the large, rich, and bewtiful empyre of Guiana, with a relation of the great and golden citie of Manoa (which the Spanyards call El Dorado) and of the provinces of Emerica, Arromaia, Amapaia, and other countries, with their rivers, adioyning. In: *Hakluyt's Voyages*. Glasgow, James MacLehose & Sons, 1904, Vol. 10: 338–431.
- Raleigh, Walter
n.d. *Drie scheeps-togten na het Goud-rijke Koninkrijk Guiana, in America gelegen, door den Engelssen Ridder Walther Raleigh, gedaan in de jaren 1595.1596.1597....*
Leiden, Pieter Vander Aa, columns 5–42 + [2 pp.]. 6 figs. 2 maps.
–Reports a manatee seen in the Oiana River (near the Mana River) in the Amaracapana Valley on the 1595 voyage (25).
- Ralls, Katherine S.: SEE ALSO Brownell et al.; Rathbun et al., 1988.
- Ralls, Katherine S.
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- Raloff, Janet
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- Ralph, C.L.
1975. The pineal gland and geographical distribution of animals. *Internatl. Jour. Biometeorol.*, 19(4): 289–303.
- x Ralph, C.L.; Young, S.; Gettinger, R.; & O'Shea, Thomas J.
1985. Does the manatee have a pineal body? *Acta Zoologica* (Stockholm), 66(1): 55–60. 1 fig.
–Histological study of a *T. manatus* brain showed that it either lacked a pineal body or had only a rudimentary process that might represent an undeveloped epiphysis cerebri.
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–Repr.: Gainesville, Univ. Florida Press: xix + 146, 1964. Ed. 2: 88 pp., 1876. See also Edwards (1875). Manatee, 85 (in 1876 ed.).
- Ramirez, R.: SEE Farrés & Ramirez, 1959.
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–Sirs., 50, 53.
- Ramusio, Giovanni Battista
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Venice, Stamperia de' Givnti, leaves 1–34, 1–456. Figs. Maps.
–Allen 21. Account of the manatee from Oviedo, leaves 40, 71, 72, 159–161; fig. on leaf 159.
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–Mentions that *T. manatus* “feeds in part on sea grasses in the tropical western Atlantic” (259).
- x Randall, John E.
1971. Progress in marine parks. *Sea Frontiers*, 17(1): 2–16. 11 figs. Jan.–Feb. 1971.
–Mentions a proposed dugong reserve in Tanzania (12).
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1820. *Elementi della storia naturale dei mammiferi....*
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- Rao, K. Satyanarayana: SEE Nair et al., 1975.
- Rapp, Wilhelm Ludwig von
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–Allen 920. Allen says: “The historical introduction [3–20] traces briefly the history of the subject from the time of Aristotle to date, with copious references to the literature in foot-notes. Theil I [21–58] gives a carefully prepared synopsis of the species, with brief diagnoses, the principal synonymy, and references to the more important works relating to the species. Theil II [59–179] is devoted to a general account of the anatomy of the Sirenians and Cetaceans, largely from original investigation. The eight plates are based on

material studied by the author.”

- x Rapp, Wilhelm Ludwig von
1857. Anatomische Untersuchungen über Manatus (Lamantin). *Württemberg. Natw. Jahresh. (= Jahresh. Ver. Vaterland. Naturk. Württemb.)* (Stuttgart), 13(1): 87–98. Pl. 3.
–Describes aspects of the anatomy of a “*Manatus latirostris*” from Surinam: tongue, tonsils, hyoid, larynx, trachea, lungs, heart, major vessels, esophagus, stomach, intestines, spleen, female reproductive organs, auditory ossicles, and eye.
Rasanayagam, M.C.; & Mudaliyar, C.
1926. *Ancient Jaffna. Being a research into the history of Jaffna from very early times to the Portuguese period.*
New Delhi, J. Jetley, for Asian Education Services, 1–390.
- xDRaschke, Rodney E.
1984. Early and Middle Miocene vertebrates from the Santa Ana Mountains, California. *Mem. Nat. Hist. Foundation Orange County*, 1: 61–67. 2 figs. Jan. 1, 1984.
–Mentions the occurrence of *Desmostylus*, *Paleoparadoxia*, and *Dioplotherium allisoni* in Middle Mioc. rocks of the Santa Ana Mountains, southern California (62, 64).
- x Rathbun, Frank
1983. Museum exhibit dramatizes manatee’s plight. *Today in Gainesville* (Florida), 1(5): 6–10. Cover photo + 1 fig. Feb. 1983.
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Rathbun, Galen B.: SEE ALSO Beck et al., 1982; Caldwell & Caldwell, 1985; Etheridge et al., 1985; Kochman et al., 1983, 1985; Lefebvre et al., 1989; Marsh & Rathbun, 1987, 1990; Mate et al., 1986; Medway et al., 1982; Nishiwaki & Marsh, 1985; O’Shea, Rathbun et al., 1985; O’Shea et al., 1991; Packard, Rathbun et al., 1984; Powell et al., 1981; Powell & Rathbun, 1984; Reid et al., 1991; Reynolds & Odell, 1991; Thenius et al., 1987.
- Rathbun, Galen B.
1984. Sirenians. Chap. 17 in: S. Anderson & J.K. Jones, Jr. (eds.), *Orders and families of Recent mammals of the world.*
New York, John Wiley & Sons, 537–547. Figs. 93–94.
- x Rathbun, Galen B.
1988. Fixed-wing airplane versus helicopter surveys of manatees (*Trichechus manatus*). *Mar. Mamm. Sci.*, 4(1): 71–75. 1 tab. Jan. 1988.
–Numbers of manatees counted at Crystal and Indian Rivers, Florida (1978–1979), did not significantly differ between surveys conducted with fixed- and rotary-wing aircraft, though helicopter surveys produced less variable counts and may be more effective for some specialized surveys.
- x Rathbun, Galen B.; Bonde, Robert K.; & Clay, Deborah
1982. The status of the West Indian manatee on the Atlantic coast north of Florida. In: R.R. Odom & J.W. Guthrie (eds.), *Proc. Symp. Nongame & Endangered Wildlife. Georgia Dept. Nat. Resources, Game & Fish Div., Tech. Bull.*, WL5 (179 pp.): 152–165. 1 tab. 6 figs.
–Lists and analyzes 160 historical and recent records of *T. manatus* north of Florida, showing that they decrease sharply in frequency northward and that more northern records are restricted to fewer months of the year. The northernmost record is from Washington, D.C. Manatees do not winter north of Florida, but do use warm-water effluents in Georgia during the spring. Sources of mortality in the northern part of the range include starvation, cold, and commercial shrimp netting.
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–Aerial surveys in 1983 confirmed the results of observations in 1977–1978, viz., that the dugong population is very small (maximum count = 38) and highly endangered by subsistence hunting.
Rathbun, Galen B.; Carr, Thomas; Carr, Nicole; & Woods, Charles A.
1985. The distribution of manatees and sea turtles in Puerto Rico, with emphasis on Roosevelt Roads Naval Station.
NTIS Document No. PB 86–1518347AS: vi + 83. Jul. 1985.
- x Rathbun, Galen B.; Powell, James Arthur, Jr.; & Cruz, Gustavo
1983. Status of the West Indian manatee in Honduras. *Biol. Conserv.*, 26(4): 301–308. 3 figs.
–Aerial surveys and interviews indicated a low density of manatees and relatively heavy subsistence hunting pressure. A manatee harpoon is illustrated. Hunters state that manatees are nocturnal, move out to sea during storms, and enter rivers in the rainy season. Several manatees died of starvation after being trapped in a lagoon during the dry season.
Rathbun, Galen B.; Reid, James P.; & Bourassa, J.B.
1987. Design and construction of a tethered, floating

- radio-tag assembly for manatees.
NTIS Document No. PB 87-161345/AS: 1-49.
- x Rathbun, Galen B.; Reid, James P.; & Carowan, Glenn
1990. Distribution and movement patterns of manatees (*Trichechus manatus*) in northwestern peninsular Florida.
Florida Mar. Res. Publs., No. 48: 1-33. 6 tabs. 24 figs. Dec. 1990.
-Data from aerial surveys, radiotracking studies, and other sightings show that manatees in northwestern Florida (north of the Chassahowitzka River) use the Homosassa and Crystal rivers as winter refuges but disperse widely in summer. Relatively little manatee mortality in this area is human-caused.
- Rathbun, Galen B.; Reid, James P.; & Tas'an
1987. Design and construction of a tethered, floating radio-tag assembly for dugongs.
NTIS Document No. PB 87-161352/AS: 1-36.
- x Rathbun, Galen B.; Woods, Charles A.; & Ottenwalder, José A.
1985. The manatee in Haiti.
Oryx, 19(4): 234-236. 1 fig.
-An aerial survey in 1982 found only 8 *T. manatus*; they have apparently declined drastically over the past 50 years, and are now caught mainly by accident in beach seines. Former hunting techniques included spearing and stoning to death (!). Conservation measures appear impracticable; the best hope seems to be that hunting expertise will die out.
- x Rattner, Dian
1982. Florida's endangered mermaids—can we save them?
Scholastic Science World, 39(7): 29-31. Cover photo + 6 figs. Nov. 26, 1982.
-Pop. acc. of manatees at Crystal River and elsewhere in Florida, including recent deaths attributed to red tide.
- Rattner, Robert
1990. Manatees among us.
Animals, Jul./Aug. 1990: 26-31. 10 figs. + cover illus.
- Rausch
1893. Zur Geschichte der Sirenen.
Ber. Oberhess. Ges. Nat. Heilk. Giessen, 29: 138.
- Ray, Clayton Edward: SEE ALSO Barnes et al., 1985; Buffrénil et al., 1990; Domning, Morgan, & Ray, 1982; Domning & Ray, 1986; Domning et al., 1986; Pollock & Ray, 1957; Wing et al., 1968.
- x Ray, Clayton Edward
1960. The manatee in the Lesser Antilles.
Jour. Mamm., 41(3): 412-413. Aug. 15, 1960.
-Reviews early reports and archaeological evidence establishing or suggesting the presence of *T. m. manatus* at Guadeloupe, Martinique, St. Lucia, and Marie Galante in historic times.
- Ray, Clayton Edward
1975. The relationships of *Hemicaulodon effodiens* Cope 1869 (Mammalia: Odobenidae).
Proc. Biol. Soc. Washington, 88(26): 281-303. 6 pls. Aug. 15, 1975.
- x Ray, Clayton Edward; & Domning, Daryl Paul
1986. Manatees and genocide.
Mar. Mamm. Sci., 2(1): 77-78. Jan. 1986.
-Repr.: *Amer. Cetacean Soc., Puget Sound Chapter Newsletter*, Jul.-Aug. 1989: 8-9. Letter to the editor, arguing that the problem of preserving Florida manatees is a critical challenge for marine mammal conservation in the U.S.
- D Ray, Clayton Edward; Domning, Daryl Paul; & McKenna, Malcolm Carnegie
1994. A new specimen of *Behemotops proteus* (Mammalia: Desmostylia) from the marine Oligocene of Washington. In: A. Berta & T.A. Deméré (eds.), *Contributions in marine mammal paleontology honoring Frank C. Whitmore, Jr.*
Proc. San Diego Soc. Nat. Hist., 29: 205-222. 1 tab. 15 figs. May 1, 1994.
-A new specimen including both upper and lower teeth, from the middle or upper Oligocene, confirms the close similarity of *Behemotops* to Eocene anthracobunids of Asia. *Behemotops emlongi* is synonymized with *B. proteus*, and the dentition of the latter is reinterpreted.
- Ray, G. Carleton
1968. *Marine parks for Tanzania: results of a survey of the coast of Tanzania by invitation of the Trustees of Tanzania National Parks.*
New York, Conservation Foundation, New York Zoological Society, 1-47. Oct. 1968.
-Dugong, 37-39.
- Ray, G. Carleton
1981. The role of large organisms. In: A.R. Longhurst (ed.), *Analysis of marine ecosystems.*
London & New York, Academic Press (741 pp.), 397-413. Illus.
- Ray, John
1693. *Synopsis methodica animalium quadrupedum et serpentini generis. Vulgarium notas characteristicas, rariorum descriptiones integras exhibens: cum historiis & observationibus anatomicis perquam curiosis. Praemittuntur nonnulla de animalium in genere, sensu, generatione, divisione &c.*
London, S. Smith & B. Walford, [xiv] + 336 + [8]. Frontisp.
-Sirs., 193-194.

- x Rayfield, Earl
 1974. Fifty thousand feet of history. *NOAA* (U.S. Natl. Oceanic & Atmospheric Administration), 4(1): 44–47. 7 figs. Jan. 1974.
 –States (p. 45) that the archives of NOAA's National Ocean Survey contain “a century-old drawing of a sea cow”; reproduced on p. 47, it is the drawing of *Hydrodamalis* on the map published by Dall (1891) and discussed by Stejneger (1936: 516).
- Raymond, Gale J.: SEE Wagner et al., 1983.
- Rayner, Sue
 1987. *Dugongs*. Melbourne, Oxford Univ. Press, 1–31. Illus. 1 map.
- Raza, S. Mahmood: SEE ALSO Gingerich et al., 1993.
- x Raza, S. Mahmood; Barry, John C.; Meyer, Grant E.; & Martin, Lawrence
 1984. Preliminary report on the geology and vertebrate fauna of the Miocene Manchar Formation, Sind, Pakistan. *Jour. Vert. Pal.*, 4(4): 584–599. 2 tabs. 4 figs. Dec. 1984.
 –Mentions a sir. rib fragment collected in the upper part of the Gaj Formation (Early or Middle Miocene) (585).
- x Read, Bernard Emms
 1931. Chinese materia medica. Animal drugs. II. The wild animals. *Peking Nat. Hist. Bull.*, 6(1): 1–52. Sep. 1931.
 –Identifies (without supporting evidence) the animal known in Chinese as *hai niu*, or sea cow, with *Rhytina gigas*, and states that its skin was “used for many purposes” by the Chinese and that its oil was used in lamps (16); but does not state definitely that the animal occurred in China. See also Sowerby (1935). Also mentions a “sea animal” (52) that Sowerby thought might be the dugong, but I consider this identification too tenuous.
- Reche, O.
 1905. Über Form und Funktion der Halswirbelsäule der Zahnwale. *Jena. Zs. Natw.*, 40: 150–252. 31 figs.
 –Sirs., 243.
- Red Spinner (pseudonym of William Senior): SEE Anonymous, 1881.
- x Reddacliff, Gary
 1988. Crater wounds in marine mammals. In: M.L. Augée (ed.), *Marine mammals of Australasia: field biology and captive management*. Sydney, Royal Zoological Society of New South Wales (vii + 140), 133–134. Mar. 1988.
 –Also appeared in *Austral. Zool.*, 24(3)? Reports a young male dugong that stranded and died in Sydney Harbour in March 1980 as a result of bites by cookie-cutter sharks (*Isistius* sp.).
- Reddick, J.
 1980. Sirenia in distress. *Cetus*, 2(2): 7. Illus.
- Redspinner (pseudonym of William Senior): SEE Anonymous, 1881.
- Reed, A.W.
 1969. *An illustrated encyclopaedia of Aboriginal life*. Sydney, A.H. & A.W. Reed, 1–165.
 –Dugong hunting in Australia, 66–67, 69–71.
- x Reed, Jim
 1976. Guana River Wildlife Management Area. *Florida Wildlife*, Jan. 1976: 10–12. 5 figs.
 –P. 12: {“At least one manatee is known to be in the impoundment [= artificial Lake Ponte Vedra, St. Johns County, Florida].”}
- Reed, Nathaniel Pryor
 1982. “Sharing ...” key to manatee survival. *Florida Naturalist*, 55(1): 8–9. 4 figs. Jan.–Mar. 1982.
- Reed, P.C.: SEE Marsh, Freeland et al., 1986.
- Reeds, Chester A.
 1916. Porto Rican localities yielding vertebrate fossils. *Annals New York Acad. Sci.*, 26: 436–438.
- Reep, Roger Lyons: SEE ALSO O'Shea & Reep, 1990; Loerzel & Reep, 1991.
- Reep, Roger Lyons; Johnson, J.I.; Switzer, R.C.; & Welker, W.I.
 1989. Manatee cerebral cortex: cytoarchitecture of the frontal region in *Trichechus manatus latirostris*. *Brain Behav. Evol.*, 34(6): 365–386.
- Reep, Roger Lyons; & O'Shea, Thomas J.
 1990. Regional brain morphometry and lissencephaly in the Sirenia. *Brain Behav. Evol.*, 35(4): 185–194. 4 tabs. 4 figs.
- Reeves, Randall R.: SEE ALSO Brownell et al., 1981; Leatherwood & Reeves, 1989.
- Reeves, Randall R.; Stewart, Brent S.; & Leatherwood, J. Stephen
 1992. *The Sierra Club handbook of seals and sirenians*. San Francisco, Sierra Club Books, xvi + 359. Illus.
 –Rev.: K.W. Kenyon, *Jour. Mamm.*, 75(1): 231, Feb. 18, 1994. Sirs., 33–36, 259–293.
- x Reeves, Randall R.; Tuboku-Metzger, Daphne; & Kapindi, Richard A.
 1988. Distribution and exploitation of manatees in Sierra Leone. *Oryx*, 22(2): 75–84. 1 tab. 7 figs. Apr. 1988.
 –Briefly describes the distribution of manatees (based on interviews) and of manatee traps and nets along rivers. Describes in detail hunting

methods using traps, nets, and harpoons; carcass utilization; fragmentary catch statistics; and conflicts with fishing and rice farming. Discusses conservation prospects for manatees in Sierra Leone.

Rêgo, Aurora Ramos de Morais: SEE Morais Rêgo, Aurora Ramos de.

Reguant, S.

1967. El Eoceno marino de Vic (Barcelona).

Mem. Inst. Geol. Min. España, 68: 1–350.

–Reports “*Halitherium* sp.” at various Eocene localities between Taradell and Sant Julià de Vilatorra, Spain.

Rehfeld, S. Jerry: SEE Elias et al., 1987.

x Reichenau, Wilhelm von

1878. Das Thierreich, vom Gesichtspunkte der Anpassungsähnlichkeit. (Ein Beitrag zum 14. Kapitel von Darwin’s “Entstehung der Arten.”)

Kosmos (Zs. Einheitl. Weltanschauung auf Grund der Entwicklungslehre), 3(2): 133–147. May 1878.

–Brief gen. acc. of the external anatomy and aquatic adaptations of sirs. (137–138).

Reichenbach, Ernst Stromer von: SEE Stromer von Reichenbach, Ernst.

Reichenbach, Heinrich Gottlieb Ludwig

1845. *Synopsis Mammalium iconibus illustrata.... Vol. I. Cetacea, Pachydermata, Suilla.*

Leipzig, 1–31.

–Discusses *Halicore tabernaculi*, 16.

Reid, James P.: SEE ALSO Mate et al., 1986, 1987; Rathbun, Reid, & Bourassa, 1987; Rathbun, Reid, & Tas’an, 1987; Rathbun et al., 1990.

x Reid, James P.; & O’Shea, Thomas J.

1989. Three years operational use of satellite transmitters on Florida manatees: tag improvements based on challenges from the field.

Proc. 1989 North Amer. Argos Users Conference & Exhibit (Landover [Maryland], Service Argos, Inc., 361 pp.): 217–232. 2 tabs. 2 figs.

–Recounts the history of satellite tracking of Florida manatees, discusses some of the data on manatee movements thereby obtained, and describes modifications made to the transmitters as a result of field experience.

x Reid, James P.; Rathbun, Galen B.; & Wilcox, J. Ross

1991. Distribution patterns of individually identifiable West Indian manatees (*Trichechus manatus*) in Florida.

Mar. Mamm. Sci., 7(2): 180–190. 2 tabs. 2 figs. Apr. 30, 1991.

–Documents long-distance movements and site fidelity on the basis of photographs of distinctively scarred manatees. The migration pattern is

predominantly northward in spring and southward in fall.

Reilly, Patricia

1982. “You can’t not love a manatee.”

Sky (Delta Air Lines), Sep. 1982: 18–20, 22, 24. Cover + 5 figs.

x Reinhart, Roy H.

1951. A new genus of sea cow from the Miocene of Colombia.

Bull. Dept. Geol. Sci. Univ. California, 28(9): 203–213. 2 figs. Feb. 16, 1951.

–Describes *Potamosiren magdalenensis*, n.gen.n.sp., a trichechid from the Middle Miocene (Friasian) of Colombia.

xD Reinhart, Roy H.

1953. Diagnosis of the new mammalian order, Desmostylia.

Jour. Geol., 61(2): 187. Mar. 1953.

–The earliest publication of the name Desmostylia; gives its date erroneously as 1952 and alludes to the “Family Paleoparadoxia” [sic; nomen nudum].

D Reinhart, Roy H.

1959. A review of the Sirenia and Desmostylia.

Univ. California Publ. Geol. Sci., 36(1): 1–146. Tabs. 19 figs. 14 pls. July 24, 1959.

–An important survey and partial revision of the two orders, emphasizing the North American fossil record. Reviews the phylogeny of the Trichechidae (3–5); proposes a new suprageneric classification of sirs., introducing the new subfamily names Prorastominae (5), Protosireninae (6), and Halianassinae (8). Describes *Caribosiren turneri*, n.gen.n.sp. (Middle Olig., Puerto Rico; 8–21), and *Halianassa vanderhoofi*, n.sp. (Late Mioc., California; 23–44). Describes partial skulls and other material of *Halianassa* sp. indet. (Mioc., Baja California; 44–49; later made the type of *Dusisiren reinharti* Domning, 1978) and *Eotheroides* sp. indet. (Late Eoc., Egypt; 53–56). Discusses the morphology and evolution of the lacrimal, mesethmoid, nasal, and frontal bones in sirs. (57–62), and reviews other fossil sirs. in passing.

Reviews the synonymy and morphology of *Desmostylus* (64–89); describes *Vanderhoofius coalingensis*, n.gen.n.sp. (Mioc., California; 90–93), Paleoparadoxidae [sic], n.fam., *Paleoparadoxia*, n.gen., and *P. tabatai*, n.comb. (Mioc., Japan & California; 94–100). Discusses the habits, phylogeny, and classification of the Desmostylia (101–109), concluding that the Sirenia, Desmostylia, and Proboscidea form a monophyletic group within the Paenungulata.

xD Reinhart, Roy H.

- 1970a. Desmostylia. In: P. Gray (ed.), *The encyclopedia of the biological sciences*. Ed. 2. New York, Van Nostrand Reinhold (xxv + 1027), 243.
 –One-paragraph gen. acc. of the order and its four included genera.

Reinhart, Roy H.

- 1970b. Sirenia. In: P. Gray (ed.), *The encyclopedia of the biological sciences*. Ed. 2. New York, Van Nostrand Reinhold (xxv + 1027), 854–855. 1 fig.

x Reinhart, Roy H.

1971. Fossil Sirenia of Florida. *The Plaster Jacket* (Florida State Museum), No. 15: 1–10. 5 figs. Oct. 1, 1971.
 –Pop. acc. of fossil and Recent sirs., their occurrence in Florida, and how to identify their remains.

xD Reinhart, Roy H.

1975. New discoveries in the Order Desmostylia. [Abstr.] *Amer. Zool.*, 15(3): 826. Summer 1975.
 –Reasserts the distinctness of *Cornwallius* and *Paleoparadoxia* on the basis of new material from the Oligo-Miocene of Oregon; regards the synonymy of American and Japanese *Desmostylus* as still uncertain.

D Reinhart, Roy H.

1976. Fossil sirenians and desmostylids from Florida and elsewhere. *Bull. Florida St. Mus., Biol. Sci.*, 20(4): 187–300. 8 tabs. 39 figs. Jul. 9, 1976.
 –Synonymizes *Felsinotherium* and *Halianassa* with *Metaxytherium* and reviews their morphology (191–199). Recognizes *M. ossivallense*, *M. floridanum*, *M. calvertense*, and *Hesperosiren crataegensis* in the Mioc. of Florida, and describes new material referred to each (199–235). Describes *Halitherium olseni*, n.sp. (Mioc., Florida; 238–261; now considered Late Olig.). Reports Eoc. rib fragments from Florida (262–265); discusses fossil sir. records from Java and Australia (266–269); describes vestigial incisors in *Dugong dugon* (269–272); and reports a tooth of *Metaxytherium* sp. indet. from the Mioc. of Argentina (272–278). Discusses trichechid phylogeny (279–281), “*Manatus*” *maeoticus* (281–282), *Cryptomastodon* (282–283), valid and invalid records of desmostylians from Alaska, Florida, and Texas (283–287), and new specimens of *Desmostylus hesperus* (288–295). Morgan (1994: 264–265) concluded that the Florida *Desmostylus*

specimens reported here have erroneous locality data and are really from California.

xD Reinhart, Roy H.

1982. The extinct mammalian order Desmostylia. *Natl. Geogr. Soc. Res. Repts.*, 14: 549–555. 1 fig.
 –Progress report on Reinhart’s study of the Emlong Collection and other desmostylians. Illustrates and diagnoses the skull of *Cornwallius*; coins the new combination *Desmostylus brevimaxillare* [sic] (551); reviews the status of knowledge of other desmostylians; and alludes to other new specimens from Oregon and California.

Reitz, Elizabeth J.: SEE Watters et al., 1984; Wing & Reitz, 1982.

Remmers, J.E.: SEE Tenney & Remmers, 1963.

Renard, J. Louis

1754. *Poissons, ecrevisses et crabes, de diverses couleurs et figures extraordinaires, que l’on trouve autour des isles Moluques, et sur les côtes des terres australes...*
 Amsterdam, Reinier & Josué Ottens (2 vols. in 1). 100 pls.
 –Dugong, pl. 34, fig. 180; “Sirenne” or mermaid, pl. 57, fig. 240. See also T.W. Pietsch (1991).

x Rensberger, John M.

1969. A new iniid cetacean from the Miocene of California. *Univ. California Publ. Geol. Sci.*, 82: 1–34. 2 figs. 4 pls. Jun. 13, 1969.
 –Mentions a “sirenian” [vertebra and rib fragment, UCMP 35102–35103] from the Early or Middle Miocene Monterey Group in Alameda County (1–2).

Renshaw, G.

1937. The northern sea-cow. *Jour. Soc. Preserv. Fauna Empire* (n.s.), 31: 51–54. 1 fig.

Repenning, Charles A.: SEE ALSO Mitchell & Repenning, 1963.

xD Repenning, Charles A.

1965. [Drawing of *Paleoparadoxia* skeleton.] *Geotimes*, 9(6): 1, 3. Cover illus. Feb. 1965.
 –Cover illustration with caption, showing Repenning’s reconstruction of the Stanford skeleton, which was subsequently reproduced in the third ed. of Romer’s *Vertebrate Paleontology* and elsewhere.

xD Repenning, Charles A.; & Packard, Earl L.

1990. Locomotion of a desmostyliian and evidence of ancient shark predation. In: A.J. Boucot (ed.), *Evolutionary paleobiology of behavior and coevolution*. Amsterdam, Elsevier (xxiii + 725), 199–203. Figs. 179–183.

—Describes the circumstances of occurrence and taphonomy of the Stanford (California) *Paleoparadoxia* skeleton, attributes fractures of its hind legs to a fall, and suggests shark attack as the cause of death. Also describes details of the hindlimb and other joints, interpreting them to indicate somewhat frog-like postures in both terrestrial and aquatic locomotion, and a terrestrial gait similar to that of otarioid pinnipeds.

Retzius, Anders Johann

1794. Anmärkningar vid genus Trichechi. *Kongl. Svenska Vetenskapsacad. Handlingar* (Stockholm), (2)15: 286–300. Oct.–Dec. 1794.
—First publication of the name *Hydrodamalis* (292).

Revilla, Juan: SEE Neville et al., 1976.

Rey, R.

1964. Sur quelques pièces ostéologiques du Muséum d'Histoire Naturelle de Nantes. *Bull. Soc. Sci. Nat. Ouest France*, 60, Mém. Trav. Orig.: 17–26. 3 pls.
—Describes material of *Halitherium*.

Reynolds, John E., III: SEE ALSO Bazzini et al.; Forrester et al., 1979; Hill & Reynolds, 1989; Marmontel et al., 1992; Odell et al., 1978; Odell & Reynolds, 1979, 1980; Packard, Frohlich et al., 1984; Packard et al., 1989; Weigle et al., 1988; Wilhelm et al., 1988.

x Reynolds, John E., III

1976. The Florida manatee: myth vs. truth. *Sea Frontiers*, 22(4): 209–214. 4 figs. Jul.–Aug. 1976.
—Gen. acc. of manatee behavior (including an observation of playful “body-surfing”), popular misconceptions about manatees in Florida, and the outlook for their conservation.

Reynolds, John E., III

1977. Precarious survival of the Florida manatee. *Oceans*, 10(5): 50–53. 4 figs. Sep.–Oct. 1977.

x Reynolds, John E., III

- 1979a. The semisocial manatee. *Nat. Hist.* (New York), 88(2): 44–53. 10 figs. + cover photo. Feb. 1979.
—Pop. acc. of *T. manatus* at Blue Lagoon, Miami, Florida, emphasizing herd structure, “estrous herds,” cow-calf interactions, “body surfing,” “follow-the-leader,” social communication, and activity patterns. Concludes that manatees are “moderately social.”

Reynolds, John E., III

- 1979b. Internal and external morphology of the manatee (sea cow). [Abstr.] *Anat. Rec.*, 193(3): 633.

x Reynolds, John E., III

- 1981a. Behavior patterns in the West Indian manatee,

with emphasis on feeding and diving.

Florida Scientist, 44(4): 233–242. 4 tabs. 1 fig.

—Presents quantitative data on *T. manatus* in Blue Lagoon, Miami, Florida, regarding activity patterns, feeding, dive times, aggregations, and miscellaneous behavior such as hauling out to feed, climbing barriers, and “body-surfing”; also lists food plants eaten.

x Reynolds, John E., III

- 1981b. Aspects of the social behaviour and herd structure of a semi-isolated colony of West Indian manatees, *Trichechus manatus*.

Mammalia, 45(4): 431–451. 8 tabs. 4 figs.

—French summ. A population of about 60 manatees in Blue Lagoon Lake, Miami, Florida, tended to be found in herds of 2 or more. Except for female-calf pairs, these herds were unstable. Social facilitation, synchronous breathing, “body-surfing,” and “follow-the-leader” behaviors were observed. Social contexts of vocalizations are described, and other possible forms of communication are discussed. *T. manatus* is considered a “moderately social” species.

x Reynolds, John E., III

- 1981c. Manatees of Blue Lagoon Lake, Miami, Florida: biology and effects of man’s activities. In: R.L. Brownell, Jr., & K. Ralls (eds.), *The West Indian manatee in Florida. Proceedings of a workshop held in Orlando, Florida 27–29 March 1978* (q.v.).

Tallahassee, Florida Dept. Nat. Res. (iv + 154): 25–32. 2 figs.

—Briefly summarizes behavioral and other observations reported in more detail in the publications cited above. Also discusses the danger to manatees of flood control dams, boat collisions, harassment, vandalism, fish hooks, and culverts, and notes that many people in the study area feared and disliked manatees.

x Reynolds, John E., III; & Ferguson, J.C.

1984. Implications of the presence of manatees (*Trichechus manatus*) near the Dry Tortugas Islands. *Florida Scientist*, 47(3): 187–189.

—Notes two instances of manatee sightings near the Dry Tortugas, and discusses whether manatees require or merely prefer access to fresh water.

Reynolds, John E., III; & Gluckman, Casey J.

1988. Protection of West Indian manatees (*Trichechus manatus*) in Florida.

NTIS Document No. PB 88–222922, 1–103.

Reynolds, John E., III; & Haddad, Kenneth D. (eds.)

1990. Report of the Workshop on Geographic Information Systems as an Aid to Managing Habitat for West Indian Manatees in Florida and Georgia.

- Florida Mar. Res. Publ.*, 49: 1-57. Illus. Dec. 1990.
 –Includes, in addition to the Report of the Workshop (1-10), invited papers by O'Shea & Kochman, Weigle & Haddad, Osborn, Gilbrook, and Kautz (11-50; q.v.); the agenda and list of participants (51-53); and an excerpt from a senior thesis by Houhoullis (54-57; q.v.).
- x Reynolds, John E., III; & Krause, W.J.
 1982. A note on the duodenum of the West Indian manatee (*Trichechus manatus*), with emphasis on the duodenal glands.
Acta Anat., 114(1): 33-40. 1 tab. 4 figs.
 –Describes the gross and microscopic structure and histochemistry of the duodenum and duodenal glands; the latter secrete an acid mucin (sialomucin) and have cells intermediate between classical serous and mucous types.
- Reynolds, John E., III; & Odell, Daniel Keith
 1982. Florida's manatees.
Southern Boating, 10(6): 110-111. 2 figs. Feb. 1982.
- Reynolds, John E., III; & Odell, Daniel Keith
 1991. *Manatees and dugongs*.
 New York, Facts on File, Inc., xiv + 192. Illus. Oct. 1991.
 –Revs.: G.B. Rathbun, *Mar. Mamm. Sci.*, 9(1): 114-115, Jan. 1993; J.N. Layne, *Florida Field Nat.*, 21(1): 22, Feb. 1993. Thorough, well-illustrated popular account of sir. biology, distribution, status, and conservation. Includes a chapter by Domning entitled "Why save the manatee?" (167-173; Domning, 1991c).
- x Reynolds, John E., III; & Wilcox, J. Ross
 1985. Abundance of West Indian manatees (*Trichechus manatus*) around selected Florida power plants following winter cold fronts, 1982-1983.
Bull. Mar. Sci., 36(3): 413-422. 4 tabs. 1 fig.
 –Aerial surveys focussed on 5 Florida Power & Light Company plants revealed lower numbers of manatees than in previous years, probably reflecting unusually mild winter temperatures in 1982-1983.
- x Reynolds, John E., III; & Wilcox, J. Ross
 1986. Distribution and abundance of the West Indian manatee *Trichechus manatus* around selected Florida power plants following winter cold fronts: 1984-85.
Biol. Conserv., 38(2): 103-113. 3 tabs.
 –Aerial surveys focussed on 5 Florida Power & Light Company plants revealed generally higher numbers of manatees than in previous years, probably due to very cold temperatures in Jan. 1985.
- x Reynolds, John E., III; & Wilcox, J. Ross
 1987. People, power plants, and manatees.
Sea Frontiers, 33(4): 263-269. 6 figs. Jul.-Aug. 1987.
 –Pop. acc. of the use of power-plant discharges of warm water as cold-weather refugia by Florida manatees, and related conservation problems.
- Reynolds, John E., III; & Wilcox, J. Ross
 1988. Insight into manatee, *Trichechus manatus*, biology and management provided by winter aerial surveys in Florida. [Abstr.]
Florida Scientist, 51 (Suppl. 1): 26.
- Reynolds, John E., III, & Wilcox, J. Ross
 1994. Observations of Florida manatees (*Trichechus manatus latirostris*) around selected power plants in winter.
Mar. Mamm. Sci., 10(2): 163-177. 3 tabs. 2 figs. Apr. 27, 1994.
- Reynolds, S.H.
 1897. *The vertebrate skeleton*.
 Cambridge, Cambridge Univ. Press, xvi + 559. 110 figs.
 –Sirs., 518, 554.
- Reynoso, J.P. Gallo: SEE Gallo Reynoso, J.P.
- Rhoads, Samuel N.
 1894a. Some proposed changes in the nomenclature of the American Mammalia.
Amer. Naturalist, 28(330): 523-526. Jun. 1894.
 –Supports the use for manatees of the names *Trichechus*, *T. manatus*, *T. inunguis*, and *T. senegalensis* (523).
- Rhoads, Samuel N.
 1894b. *A reprint of the North American Zoology, by George Ord. Being an exact reproduction of the part originally compiled by Mr. Ord for Johnson & Warner, and first published by them in their second American edition of Guthrie's Geography, in 1815. Taken from Mr. Ord's private, annotated copy. To which is added an appendix on the more important scientific and historic questions involved.*
 Haddonfield (New Jersey), publ. by the editor, x + "290-361" + 90. Frontisp.
 –Manatee, 291, 293 (of Ord's text), 5-6 (of Rhoads' appendix). Ord recognized "*Trichechus australis*" (= *T. manatus*) and "*Trichechus siren*" (= Steller's "sea-ape").
- Rhoads, Samuel N.
 1903. *The mammals of Pennsylvania and New Jersey: a biographic, historic and descriptive account of the furred animals of land and sea, both living and extinct, known to have existed in these states*.
 Philadelphia, privately published, 1-266. 9 pls. 1 map.
 –Sirs., 246.

- Ribeiro, Gilberto de Assis: SEE Best, Ribeiro et al., 1982; Colares et al., 1987.
- Ribeiro de Sampaio, Francisco Xavier: SEE Sampaio, Francisco Xavier Ribeiro de.
- Ricardo Bertram, Cicely Kate: SEE Bertram.
- Ricaurte, Daniel Ortega
1940. *La hoya del Amazonas.... Tomo I. Segunda edicion.*
Bogotá, Editorial Centro S.A., 1-533.
-First ed., Bogotá, Escuela Tip. Salesiana: 1-297, 1936. Manatee, 440-442.
- Rice, Dale W.: SEE ALSO Domning, Rice et al., 1982; Scheffer & Rice, 1963.
- x Rice, Dale W.; & Scheffer, Victor B.
1968. A list of the marine mammals of the world. *U.S. Fish & Wildl. Serv., Spec. Sci. Rept. Fisheries*, No. 579: iii + 16. Dec. 1968.
-Summarizes the distribution of the living sirs. (5-6) and gives their common synonyms (12). Includes a bibliography by Ethel I. Todd (12-16).
- Rich, J.A.
1898. Some notes on the manus of the dugong. *Jour. Anat. Physiol.*, 32: 765-767.
- x Rich, Vera
1983. Sea cow relics for museum. *Nature* (London), 306: 415. Dec. 1, 1983.
-Reports the discovery on Bering Island of "a virtually complete skeleton" of Steller's sea cow, to be kept and displayed on Bering Island itself. See also Domning (1984a).
- Richard, M.
1946. Les gisements de mammifères tertiaires: contribution à l'étude du bassin d'Aquitaine. *Mém. Soc. Géol. France* (n.s.), 24(1)(52): xxiv + 380. 52 figs.
-Mentions *Eotherium* from the Upper Eocene of France.
- Richardson, B.J.: SEE Lowenstein et al., 1981.
- x Richardson, John
1837. Report on North American zoology. *Rept. 6th Meeting, Brit. Assoc. Adv. Sci.*, 5: 121-224.
-Allen 924. Lists *Manatus americanus*, *M. latirostris*, and *Rhytina borealis* among North American Cetacea (162).
- Ricqlès, Armand de: SEE Buffrénil et al., 1990.
- Ride, W.D.L.: SEE Mahoney & Ride, 1975.
- x Ridgway, Brian
1982. Paleontological survey of the Toy Town Dump, St. Petersburg, Florida. *The Plaster Jacket* (Florida State Museum), No. 40: 4-20. 16 figs. Jun. 1982.
-Reports sirs. cf. *Halianassa* from the Miocene Hawthorn Formation in Pinellas County, Florida; mentions tooth scars on the bones as evidence of shark predation (7, 13, 15).
- Ridgway, Samuel H.: SEE Harrison & Ridgway, 1976.
- Ridley, H.N.
1924. *The flora of the Malay Peninsula. Volume 4: Monocotyledones.*
London, L. Reeve & Co., Ltd., 1-383.
- Ridley, H.W.
1895. The mammals of the Malay Peninsula. *Nat. Sci.*, 6: 23-29, 89-96, 161-165.
-Distribution and food habits of the dugong, and its hunting by the Chinese (165).
- x Riemer, Donald N.
1982. Sea cows on stamps. *Bio-Philately* (Biology Unit, Amer. Topical Assoc.), 31(1-2): 19-23. 6 figs.
-Accurate pop. acc. of living sirs., listing 11 postage stamps depicting them. See also E.D. Gomez (1983).
- x Riemer, Donald N.
1984. *Introduction to freshwater vegetation.* Westport (Connecticut), AVI Publ. Co., Inc. Illus.
-Gen. acc. of *T. manatus* and its lack of suitability for weed control (138-141).
- Rigg, J.
1839. Sketch of the geology of Jasinga. *Verb. Batav. Genoot.*, 17: 120-135.
-Sirs. in the Miocene of Java.
- Riha, Adalbert
1911. Das männliche Urogenitalsystem von *Halicore dugong* Erxl. *Zs. Morph. Anthropol.*, 13: 395-422. 15 figs.
- Ritchie, P.H.
1934. *North of the Never Never.* Sydney, Angus & Robertson, 1-227.
-"In collaboration with H.B. Raine." Australian native customs with respect to hunting, cooking, and eating the dugong, 53-58.
- Rivera, Ernesto J. Ortiz: SEE Ortiz Rivera, Ernesto J.
- x Roaf, Michael
1976. Excavations at Al Markh, Bahrain. *Proc. Seminar for Arabian Studies* (Inst. of Archaeology, London), 6: 144-160. 1 tab. 7 figs. 2 pls.
-Mentions the occurrence of dugong bones in the later phase (post-'Ubaid; after 3800 B.C.) at Al Markh (144, 149-151).
- Robb, Jane Sands
1965. *Comparative basic cardiology.* New York & London, Grune & Stratton. 528 figs.
-Sirs., 141, 143, 212-215, 402, 574.
- Robert, C.
1836a. [Note sur quelques particularités observées dans le squelette d'un lamantin du Sénégal.]

L'Institut, 4(153): 114. Apr. 13, 1836.
–Allen 904.

- x Robert, C.
1836b. Lettre de M. Robert sur les spirules, sur le lamentin du Sénégal et sur l'existence, dans cette même région de l'Afrique, de hyène tachetée. *Ann. Sci. Nat.*, Sér. 2, Zool., 5: 226–227.
–Allen 905. ?Repr.: *C.R. Acad. Sci. Paris*, 2: 362–364. Comments briefly on some features of the skeleton of a nine-foot *T. senegalensis* he had recently collected (363 in repr.).
- x Robert, C.
1837. [Remarks on the manatee and *Dinotherium*.] *C.R. Acad. Sci. Paris*, 4(13): 471. [Read?] Mar. 27, 1836.
–P. 471: [{"M. Robert présente sur les habitudes du Lamantin quelques remarques dont l'objet est d'appuyer le rapprochement établi par M. de Blainville entre les animaux de cette famille et le Dinotherium."}]
- Robert, Maurice
1923. *Le Congo physique*.
Bruxelles, M. Lamertin, 1–315. Illus.
–Sirs., 287–288.
- Roberts, Austin
1951. *The mammals of South Africa*.
?Johannesburg, Trustees of "The Mammals of South Africa" Book Fund; distributed by the Central News Agency, xlviii + 700. Illus.
–Record of dugongs, 232.
- Roberts, Callum: SEE Sheppard et al., 1992.
- Roberts, Orlando W.
1827. *Narratives of voyages and excursions on the east coast and in the interior of Central America; describing a journey up the Rio San Juan, and passage across the Lake of Nicaragua to the city of Leon*.
Edinburgh, Constable. 1–302. 1 map.
–Facsimile ed.: Gainesville, Univ. Florida Press, 1965. Manatees, 97–98.
- x Robineau, Daniel
1965. Les osselets de l'ouïe de la rhytine. *Mammalia*, 29(3): 412–425. 5 figs. Sep. 1965.
–Engl. summ. Describes the ear ossicles of Steller's sea cow and compares them with those of *Trichechus* and *Dugong*.
- x Robineau, Daniel
1969. Morphologie externe du complexe osseux temporal chez les siréniens. *Mém. Mus. Natl. Hist. Nat.* (Paris), Sér. A (Zool.), (2)60(1): 1–32. 17 figs.
–Detailed, well-illustrated description of the temporal and ear regions of the Recent sirs., particularly *Dugong*, and comparisons with other orders of mammals.
- x Robineau, Daniel; & Rose, Jean-Michel
1982. Le dugong [*Dugong dugon* (Müller, 1776) Sirenia, Dugongidae] en République de Djibouti. *Biol. Conserv.*, 24(3): 233–238. 1 fig. Nov. 1982.
–Engl. summ. Strandings, accidental captures in shark nets, and aerial surveys (in late 1980) indicate a population of some 30 dugongs in Djibouti; these may represent the northern edge of a larger population in Somalia.
Robinson, John G.: SEE Correa-Viana et al., 1990; O'Shea et al., 1988.
- x Robinson, N.H.
1984. Marine mammals of the coastal waters of the Illawarra region. *Victorian Naturalist*, 101(4): 152–161. 2 tabs. 2 figs. Jul./Aug. 1984.
–Records two dugong strandings in New South Wales, at Port Hacking (Feb. 12, 1959) and Port Kembla (Dec. 1960) (157).
- Robinson, P.T.
1971. Wildlife trends in Liberia and Sierra Leone. *Oryx*, 11(2–3): 117–121. 1 fig.
- Robinson, Peter T.
1974. The Beglia Formation of Tunisia. *Mem. Bur. Rech. Géol. Minieres, France*, No. 78, vol. 1: 235–237.
- Robinson, Peter T.
1976. Neogene continental rock units of Tunisia. *Proc. Congr. Reg. Comm. Medit. Neog. Stratig.*, No. 6: 415–419.
- x Robinson, Peter T.; & Black, Craig C.
1969. Note préliminaire sur les vertèbres fossiles du Vindobonien (formation Béglia), du Bled Douarah, Gouvernorat de Gafsa, Tunisie. *Notes Serv. Géol. Tunisie*, No. 31: 67–70.
–Mentions sir. bones found in a Miocene vertebrate fauna representing shoreline-savannah (and also river-forest?) assemblages (69).
- Robinson, Peter T.; & Black, Craig C.
1974. Vertebrate faunas from the Neogene of Tunisia. *Ann. Geol. Surv. Egypt*, 4: 319–332. 6 figs.
–Reports indeterminate sirs. from both pre- and post-*Hipparion* levels in the Beglia Formation (322, 327).
- x Robison, J.
1833. European notices of Indian natural history. 1. The dugong. *Jour. Asiatic Soc. Bengal*, 2: 100–101. Feb. 1833.
–Letter to Robison from Robert Knox regarding a preserved dugong sent to Edinburgh by G. Swinton.
- Rocha, Newton Banks da: SEE Banks da Rocha, Newton.

- x Rochebrune, A.T. de
1883. Faune de la Sénégalie: mammifères.
Actes Soc. Linn. Bordeaux, 37(4)(7): 49–203.
—Gen. acc. of the African manatee, mostly quoted
from M. Adanson (1757?) (190–191).
- Rochefort, César de
1658. *Histoire naturelle et morale des Iles antilles de
l’Amerique. Enrichie de plusieurs belles figures
des raretez les plus considerables qui y sont
décrites. Vvec vn vocabulaire Caraïbe.*
Rotterdam, Arnould Leers, [8] + 527 pp. + 6
leaves (contents).
—Allen 82.
- x Rochefort, César de
1665. *Histoire naturelle et morale des Iles Antilles de
l’Amerique. Enrichie d’un grand nombre de belles
figures en taille douce, des places & des raretez
les plus considerables, qui y sont décrites. Avec un
vocabulaire Caraïbe. Seconde edition. Reueü &
augmentée de plusieurs descriptions, & de
quelques éclaircissements, qu’on desiroit en la
precedente.*
Rotterdam, Arnout Leers, 18 leaves + 583 pp. +
6½ leaves (contents). Figs. 3 pls.
—Allen 90. Dutch transl., Rotterdam, 1662 (Allen
85). Engl. transl., London, 1666. Also a later
French ed. (Lyon, Christofle Fourmy, 2 vols., 566
& 680 pp., 1667) and a “derniere” ed., Rotterdam,
1681. Manatee, chap. 17, 194–195; fig., 199 (pp.
155–156 in 1662 ed.; 1:391–394, 402 in 1667
ed.). The material in at least the 1667 ed. is
identical to that in the 1665 ed., but the figures are
reversed.
Allen says: “The account of the Lamantin (1
page and 3 lines in length) is explicit and
interesting, describing correctly the general ap-
pearance and habits of the animal, including its
reproduction, and the use of its flesh as food by
the natives. The cut ... is a very good figure (its
date, of course, considered) of the animal—an old
Lamantin folding its young one in its arms.”
- Rochon-Duvigneaud, André: SEE ALSO Petit & Rochon-
Duvigneaud, 1929.
- Rochon-Duvigneaud, André
1943. *Les yeux et la vision des vertébrés.*
Paris, Masson & Cie, iii + 719. Illus.
- Rochon-Duvigneaud, André
1972. L’oeil et la vision. In: P.-P. Grassé (ed.), *Traité de
zoologie: Mammifères.*
Paris, Masson et Cie, 16(4)?
—Sirs., 664–665.
- Rode, Paul
1943. *Petit atlas des mammifères. III. Cetacés, sirènes,
pinnipèdes, carnivores, chiroptères.*
Paris, N. Boubee & Co., 1–65. 12 pls.
- Rodionov, V.A.
1986. [Histochemical study of lipids in the skeletal
muscles of the manatee and other marine mam-
mals.] In: V.E. Sokolov (ed.), *Lamantin: morfolo-
gicheskie adaptatsii* (q.v.).
Moscow, “Nauka” (Akad. Nauk SSSR) (405 pp.):
351–357.
—In Russian.
- Rodriguez, João Barbosa: SEE Barbosa Rodriguez, João.
Rodriguez de Acosta, Manuel
1684. *El Marañon, y Amazonas. Historia de los des-
cvbrimientos, entradas, y redvccion de naciones.
Trabajos malogrados de algvnos conquistadores,
y dichosos de otros, assi temporales, como
espirituales, en las dilatadas montañas, y mayores
rios de la America....*
Madrid, Antonio Gonçalez de Reyes, [20] + 444 +
[31].
—Manatee, 107.
- x Rodriguez Ferreira, Alexandre
1903. Memoria sobre o peixe boy e do uso que lhe dão
no Estado do Grão Pará.
Arch. Mus. Nac. Rio de Janeiro, 12: 169–174.
—Repr.: Rodriguez Ferreira (1972: 59–65). A
description, originally written in 1786, of manatee
hunting and manatee products, and governmental
regulation thereof, in the lower Amazon region of
Brazil.
It may be worth pointing out, given past
misunderstandings by some translators, that the
word “boy” in the title is the Portuguese word for
ox (today spelled “boi”); “peixe-boi” (ox-fish) is
the usual Brazilian name for the manatee.
- Rodriguez Ferreira, Alexandre
1972. *Viagem filosófica pelas capitánias do Grão Pará,
Rio Negro, Mato Grosso e Cuiabá. Memórias
zoologia botânica.*
Rio de Janeiro, Conselho Federal de Cultura,
1–246. 4 figs.
—A collection of Rodriguez Ferreira’s natural
history manuscripts dating from the period 1783–
1792, edited and annotated by José Cândido de
Melo Carvalho. Includes three works referring to
manatees: (1) his memoir on the Amazonian
manatee (previously published in 1903, q.v.;
59–65); (2) “Observações gerais e particulares,
sobre a classe dos mamíferos observados nos
territórios dos tres rios, das Amazonas, Negro, e
da Madeira: com descrições circunstanciadas, que
quase todos eles, deram os antigos, e modernos
naturalistas, e principalmente, com a dos Tapuios”
(67–204); and (3) “Lista dos animais que fazem
objeto das caçadas e das pescarias dos índios”

(215–222). The second of these is said to have been published in the *Rev. Inst. Hist. Geogr. Bahia*, 60: 5–217, 1934. The third is said to have been published in the *Rev. Trimensal Inst. Hist. Geogr. Brasil.*, 51(1): 94–101, 1888, and in E. Goeldi, *Alexandre R. Ferreira*, Pará, ENSAIO, 1905: 57–65.

The memoir of observations on mammals mentions (124) the previous memoir on manatees, *Manatus* appears in a list of mammals on p. 129, and *Trichechus manatus* forms the subject of pp. 195–201. A female manatee is illustrated in fig. 4, facing p. 194. Note that the statistics on manatee exploitation appearing on pp. 63 and 201 of this ed. conflict with those in Rodriguez Ferreira (1903) and are apparently erroneous; see Doming (1982a: 103). Likewise, on p. 65 the date of completion of the manatee memoir is given as Feb. 2, 1786, but is Feb. 3 in the 1903 ed.

The list of animals hunted by the Indians includes, under “Bruta,” the *juarauá* or peixe-boi (manatee), of which two types are recognized: “ordinário” and “de manteiga” (215).

x Rodway, James

1912. *In the Guiana forest*. Ed. 2?

Chicago, A. C. McClurg & Co., 1–326.

–P. 84: [“As if these enemies were not sufficient, he [the Guiana native] must create another, the Hue-ru, or siren. Some have thought this water sprite to be nothing but an exaggerated manatee. But the Indians know this animal too well to confound it with his mysterious enemy. He shoots the Manatee and feeds his family for a week upon its meat when fortunate enough to secure it.”]

x Rodway, James

1917. Indian charms. In: W. Beebe, G.I. Hartley, & P.G. Howes, *Tropical wild life in British Guiana; zoological contributions from the Tropical Research Station of the New York Zoological Society. Vol. 1.*

New York, New York Zoological Society (504 pp.), 488–499. Fig. 143. Jan. 1917.

–States that the “water-mamma” or manatee is believed to upset boats and “carry people down to a kind of fairyland beneath the dark waters”; it “may be repelled or propitiated by rubbing the bulb of the red lily over the corial before encountering the danger” (491). This plant is identified as *Hippeastrum equestre* on p. 499.

Roetzel, Reinhard: SEE Pervesler & Roetzel, 1991.

Rogenhofer, Alois

1908. Über ein Endglied des Ichthyosaurierstammes aus der Kreideformation.

Verh. Zool.-Bot. Ges. Wien, 58: (38)–(44).

–Sirs., (43).

Roger, Otto

1879–1882. Liste der bis jetzt bekannten fossilen Säugethiere.

Corresp.-Bl. Zool.-Min. Ver. Regensburg, 33: 43–46, 70–92, 131–147; 34: 165–180; 35: 27–34, 52–64, 117–128; 36: 47–63, 77–94, 110–122, 129–147.

–See also *Zool. Jahrb.*, 4: 279? Subsequent revisions appeared in *Ber. Augsburg Nat. Ver.*, 1887: 1–162; 1894: 3–40; 1896: 1–272; 1898: 383–396.

D Rogers, Austin F.

1924. Mineralogy and petrography of fossil bone.

Bull. Geol. Soc. Amer., 35: 535–556. Pls. 26–29.

–Desmostylians, 545.

Rohl, E.

1959. *Fauna descriptiva de Venezuela*.

Madrid, Nuevas Graficas.

Roland-Holst, A.

1930. Sirenische Kunst.

De Gids (Amsterdam), 94(1): 132–136.

–In Dutch.

Roletto, Janette: SEE Dierauf, L.A., 1990.

Roman, F.: SEE Depéret & Roman, 1920.

D Romer, Alfred Sherwood

1966. *Vertebrate paleontology*. Ed. 3.

Chicago & London, Univ. Chicago Press, ix + 468. 4 tabs. 443 figs.

–Ed. 1, 1933; ed. 2, 1945. Sirs. & desmostylians, 252–254, 386.

xD Romer, Alfred Sherwood

1968. *Notes and comments on vertebrate paleontology*.

Chicago & London, Univ. Chicago Press, viii + 304.

–A supplement to his textbook *Vertebrate Paleontology*, ed. 3. Discusses siris and desmostylians on pp. 200–201; insists on using the name *Manatus* in preference to *Trichechus*, and comments on the series of discoveries that led to recognition of the Desmostylia as a separate order.

Rónai, A.: SEE Balogh & Rónai, 1965.

Ronald, Keith; Selley, L.J.; & Amoroso, E.C.

1978. *Biological synopsis of the manatee*.

Ottawa, International Development Research Centre, 1–112. 6 tabs. 10 pls.

–Review of the literature on manatee biology (5–47), with a bibliography of 865 titles on siris listed alphabetically by author, without annotations or index (65–111), and a short index to the text (112). The plates (49–63) reproduce those of J. Murie (1872a).

- Rondelet, Guillaume
 1554. *Libri de piscibus marinis, in quibus verae piscium effigies expressae sunt. Quae in tota piscium historia contineantur, indicat elenchus pagina nona et decima. Postremò accesserunt indices necessarij.*
 Lugduni [= Leiden], Matthiam Bonhomme, 1-583. Illus.
 -Allen 10. Manatee, book 16, chap. 18, p. 490.
- Rondelet, Guillaume
 1558. *Le premiere partie de l'histoire entiere des poissons, composée premierement en Latin....*
 Lyon, Mace Bonhome, 1-418. Illus.
 -Allen 15. Manatee, 359-360. The figs. are the same as in the 1554 Latin ed. (q.v.).
- x Rondon, Cândido Mariano da Silva; & Faria, João Barbosa de
 1948. *Glossário geral das tribos silvícolas de Mato-Grosso e outras da Amazônia e do Norte do Brasil. Tomo I.*
 Rio de Janeiro, Imprensa Nacional (Comissão Rondon, Publ. no. 76): 1-257.
 -On July 11, 1927, on the Rio Uaçá on the Atlantic coast of Pará, Brazil, Barbosa de Faria recorded the Galibí tribe's name for the manatee as *cuiúmurú* (232).
- x Rood, Ronald N.
 1960. A half-ton of mermaid.
Coronet, 49: 133-136. Dec. 1960.
 -Pop. acc. of manatees, apparently based largely on J.C. Moore (1956).
- Rosas, Fernando C.W.: SEE ALSO Colares et al., 1990.
- Rosas, Fernando C.W.
 1991. Peixe-boi da Amazônia, *Trichechus inunguis*. In: H.L. Capozzo & M. Junin (eds.), Estado de conservación de los mamíferos marinos del Atlántico Sudoccidental. *Informes y Estudios del Programa de Mares Regionales del PNUMA* (United Nations Environment Programme), No. 138 (250 pp.): 178-181.
- Rosas, Fernando C.W.; Colares, Elton Pinto; Colares, Ioni Gonçalves; & Silva, Vera Maria F. da
 1991. Mamíferos aquáticos da Amazônia brasileira. In: A.L. Val, R. Figliuolo & E. Feldberg (eds.), *Bases científicas para estratégias de preservação e desenvolvimento da Amazônia: fatos e perspectivas*. Vol. 1.
 [Publisher?] (440 pp.), 405-411.
- Rose, Jean-Michel: SEE Robineau & Rose, 1982.
- Rose, Patrick M.: SEE ALSO Walsh et al., 1987; Wood et al., 1992.
- x Rose, Patrick M.
 1981. A preliminary report on the aerial census of the West Indian manatee, *Trichechus manatus*, in and around several "once-through cooling" power plant effluents; December-March 1977-78. In: R.L. Brownell, Jr., & K. Ralls (eds.), *The West Indian manatee in Florida. Proceedings of a workshop held in Orlando, Florida 27-29 March 1978* (q.v.).
 Tallahassee, Florida Dept. Nat. Res. (iv + 154), 22-24. 1 tab. 1 fig.
 -Presents data on numbers of manatees sighted at each of 11 Florida Power & Light Company plants; analysis and discussion are reserved for a later date.
- Rose, Patrick M.
 1985. The West Indian manatee.
Audubon Wildlife Report, 1985: 540-546.
- Rosinha, A.J.: SEE Tinley et al., 1976.
- Rossi, S.S.: SEE Kuroki et al., 1988.
- Roth, Harald H.; & Waitkuwait, Ekkehard
 1986. Répartition et statut des grandes espèces de mammifères en Côte-d'Ivoire. III. Lamantins.
Mammalia, 50(2): 227-242. 2 tabs. 5 figs.
- Roth, Janet A.; & Laerm, Joshua
 1980. A Late Pleistocene vertebrate assemblage from Edisto Island, South Carolina, USA.
Brimleyana, No. 3: 1-30. July 1980.
- x Roth, V. Louise
 1992. Quantitative variation in elephant dentitions: implications for the delimitation of fossil species.
Paleobiology, 18(2): 184-202. 6 tabs. 2 figs. May 6, 1992.
 -Discusses the relatively low variability of tooth size in *T. inunguis* in comparison with that seen in elephants (194-195, 197).
- Roth, Vincent
 1941. *Notes and observations on animal life in British Guiana, 1907-1941; a popular guide to colonial Mammalia.*
 Georgetown (Brit. Guiana), *Daily Chronicle*, Ltd., ii + 164 + xv. 54 pls.
 -Fourth impression, 1953. Manatee, 69-73, pls. 23-24.
- Roth, Vincent
 1961. [Title?]
Jour. Brit. Guiana Mus. & Zoo, No. 29: 34-35? Mar. 1961.
- x Roth, Walter E.
 1901. Food: its search, capture and preparation.
North Queensland Ethnography Bull., No. 3: 1-31. 23 Figs. Sep. 1901.
 -Brief paragraph noting that dugongs are harpooned or speared in North Queensland, and that at Bentinck Is. (Gulf of Carpentaria) bush fences are built in the water and dugongs are driven into them (30).

Roth, Walter E.

1915. An inquiry into the animism and folk lore of the Guiana Indians.
Ann. Rept. Bur. Amer. Ethnol., 30 (for 1908–1909): 103–386. 6 figs. 4 pls.

Roth, Walter E.

1924. An introductory study of the arts, crafts, and customs of the Guiana Indians.
Ann. Rept. Bur. Amer. Ethnol., 38 (for 1916–1917): 25–743. 343 figs. 183 pls.

Rothausen, Karlheinz

1967. Die Klimabindung der Squalodontoidea (Odontoceti, Mamm.) und anderer mariner Vertebrata. In: L. Ahorner et al. (eds.), *Miscellanea in honorem M. Schwarzbach*.
Sonderveröff. Geol. Inst. Univ. Köln, 13: 157–166.
–Engl. summ. Discusses *Rytina gigas*.

Rothausen, Karlheinz

1986. Marine Tetrapoden im tertiären Nordsee-Becken. 1. Nord- und mitteldeutscher Raum ausschließlich Niederrheinische Bucht. Marine tetrapods in the Tertiary North Sea Basin. 1. Northern and Middle Germany excluding the Lower Rhine Embayment. In: H. Tobien (ed.), *Nordwestdeutschland im Tertiär. Northwest Germany in the Tertiary*.
Berlin & Stuttgart, Gebrüder Borntraeger (Beiträge zur Regionalen Geologie der Erde, Band 18) (xxvi + 763), 510–557. 3 figs.

Roughley, Theodore Cleveland

1961. *Wonders of the Great Barrier Reef*. Ed. 13.
Sydney, Angus & Robertson, xv + 279. Illus.
–First publ. 1936. Dugong, 162–168, pl. 31.

Roughsey, Dick

1971. *Moon and rainbow: the autobiography of an Aboriginal*.
Sydney, A.H. & A.W. Reed, 1–168. Illus.
–Dugong hunting, 47–52.

Roulin, François Désiré

1829. Mémoire pour servir à l'histoire du tapir; et description d'une espèce nouvelle appartenant aux hautes régions de la Cordillère des Andes, avec des considérations sur les animaux fabuleux dont l'histoire se rapporte à celle du tapir.
Ann. Sci. Nat. (Paris), 18: 26–56. Read Feb. 9, 1829.
–Abstrs.: *Froriep's Notizen*, 23: 305–312; *Isis von Oken*, 1833: 213–219; *Mém. Savans Étrang. (Paris)*, 6: 557–640, 948–952, 1835, Sirs., 7?

Rouse, I.

1964. Prehistory of the West Indies.
Science, 144: 499–513.

Rousseau, L.F.E.

1856. De la dentition des cétacés et de la place

qu'occupent les fanons dans la bouche des baleines.

Rev. Mag. Zool., 1856: 1–55. 8 figs.
–Sirs., 8.

Routil, R.: SEE Exner & Routil, 1958.

Roux, W.

1885. Über eigenartige Kanäle in recen ten und fossilen Knochen.
Anat. Anz., 1: 276–277.

x Rovirosa, José N.

1887. Apuntes para la zoología de Tabasco: vertebrados observados en el Territorio de Macuspana.
La Naturaleza (México), 7: 345–389.
–Discusses the distribution, harpooning, and economic use of manatees in Tabasco, Mexico (356–358).

x Rowlatt, Ursula; & Marsh, Helene D.

1985. The heart of the dugong (*Dugong dugon*) and the West Indian manatee (*Trichechus manatus*) (Sirenia).
Jour. Morph., 186(1): 95–106. 6 figs.
–Describes the gross anatomy of the heart and great vessels and their situation in the thorax. Most of the description is intended to apply to both species but is apparently based mainly on the dugong. Some differences between dugong and manatee hearts are explicitly pointed out and interpreted as consistent with greater stamina in the dugong; but otherwise the authors suggest only that “a morphologically unusual heart may be expected in a morphologically unusual thorax.”

Rubenstein, N.I.: SEE Collard et al., 1976.

Rueger, J.

1938. Zur Osteologie der beiden ersten Halswirbel der Säugetiere.
Vierteljahresschr. Naturf. Ges. Zürich, 83: 25–56.

Ruggiero, L.: SEE Borgia et al., 1981.

x Rüppell, E.

1834. Schreiben von Dr. E. Rüppell an Dr. W. Sömmering über den im Rothen Meere vorkommenden Dugong (*Halicore*).
Mus. Senckenbergianum, 1(2): 99–114. Pl. 6.
–Describes in detail the anatomy of the Red Sea dugong, and gives some notes on its natural history (as told to him by hunters) and the use of its meat, tusks, and hide. Also comments on the hide's use by the ancient Hebrews to cover the Ark of the Covenant, whence he derives the new name *Halicore tabernaculi*, given in case the species proves to differ from “*H. Dugong* of the Moluccas” (113). Sömmering, however, in a foreword (97–98), explains that Rüppell's ac-

count was written in the field without access to a library, and that the Red Sea dugong is undoubtedly the same as the species already described in the literature.

- x Rusby, Henry H.
1933. *Jungle memories*.
New York & London, Whittlesey House, McGraw-Hill, xiii + 388.
—Describes, in somewhat overblown terms, an encounter with a manatee near the falls of the Rio Madeira, Brazil (324–325). The animal had “immense, round, staring eyes” (!), and “a long and thick horn” on either side of the head, which was evidently the flipper. The accuracy of the author’s memories seems open to question.
- x Ruschi, Augusto
1965. Lista dos mamíferos do Estado do Espírito Santo. *Bol. Mus. Biol. Prof. Mello-Leitão, Sér. Zool.* (Santa Teresa, Brazil), No. 24A., Sept. 11, 1965.
—States that manatees (“*T. inunguis*”) no longer occur in Espírito Santo, Brazil, but were captured in the Rios São Mateus, Doce, and Jucú in the last century (30).
- Russell, Donald E.: SEE Gingerich et al., 1990.
- Ryan, P.R.
1978. Marine mammals—a guide for readers. *Oceanus*, 21(2): 9–16.
- Ryder, John A.
1878. On the mechanical genesis of tooth-forms. *Proc. Acad. Nat. Sci. Philadelphia*, 30(1): 45–80. 11 figs. Apr. 1878.
- x Ryder, John A.
1885. On the probable origin, homologies, and development of the flukes of cetaceans and sirenians. *Amer. Naturalist*, 19: 515–519.
—Proposes that the flukes are homologous with the pes of land animals.
- Ryder, John A.
1887a. On the homologies and early history of the limbs of vertebrates. *Proc. Acad. Nat. Sci. Philadelphia*, 39(3): 344–368. 1 tab.
—Sirs., 346.
- Ryder, John A.
1887b. On the development of the Cetacea, together with a consideration of the probable homologies of the flukes of cetaceans and sirenians. *Rept. U.S. Fish. Comm.*, 13: 427–485. Pls. 1–3.
—Sirs., 427, 475.

S

- Saalfeld, W. Keith: SEE Marsh & Saalfeld, 1989, 1990, 1991.
- Saban, Roger
 1968. Musculature de la tête. In: P.-P. Grassé (ed.), *Traité de zoologie. Mammifères*. Paris, Masson & Cie, 16(2): 230–471.
- Saban, Roger
 1975. La musculature peaucière de la tête chez un jeune lamantin du Sénégal (*Trichechus senegalensis* Link 1795; mammifère, sirénien). *Zentralbl. Veter. Med., Reihe C, Anat. Hist. Embr.*, 4(3): 232–248. 6 figs.
 –German, Engl., & Spanish summs.
- Sabatier, Armand
 1897. Sur la signification morphologique des os en chevron des vertèbres caudales. *C.R. Acad. Sci. Paris*, 124: 932–935.
 –Sirs., 933.
- Sabatier, Armand
 1902. Du système sternal des vertébrés. *C.R. Assoc. Anatomistes* (Montpellier), 4: 99–102.
 –Sirs., 100.
- Sack, Albert von
 1810. *A narrative of a voyage to Surinam; of a residence there during 1805, 1806, and 1807; and of the author's return to Europe by the way of North America*. London, G. & W. Nicol, x + 282. Frontisp. 1 pl. 1 map.
 –German transl.: Berlin, Haude & Spener, 2 vols. in 1, 1821. Dutch transl. from German: Haarlem, De erven F. Bohn, 3 vols., 1821. Manatee in Suriname, 2: 247 in Dutch ed.
- Saegusa, Haruo: SEE Kamei et al., 1989; Kuga et al., 1987.
- x Safford, W.E.
 1919. Natural history of Paradise Key and the near-by Everglades of Florida. *Ann. Rept. Smithsonian Inst.*, 1917: 377–434.
 –Mentions the occurrence of manatees in the Miami area (423–424).
- Sagae, Toshiro: SEE Kozawa et al., 1988.
- Sagayama, Tsumoru: SEE Furusawa et al., 1993.
- D Saheki, S. (= Saiki)
 1928. An occurrence of *Desmostylus* in Saghalin. *Jour. Geol. Soc. Japan*, 35(421): 569.
- Sahni, Ashok
 1979. An Eocene mammal from the Subathu-Dagshai transition zone, Dharampur, Simla Hills. *Bull. Indian Geol. Assoc.*, 24(2): 259–262. Illus.
- x Sahni, Ashok; Bhatia, S.B.; & Kumar, Kishor
 1983. Faunal evidence for the withdrawal of the Tethys in the Lesser Himalaya, northwestern India. *Bol. Soc. Pal. Italiana*, 22(1–2): 77–86. 3 figs.
 –Briefly compares the (previously undescribed) pelvic bone of *Ishatherium* to that of *Protosiren*, concluding that the former indicates amphibious habits (81).
- x Sahni, Ashok; & Kumar, Kishor
 1980. Lower Eocene sirenian, *Ishatherium subathuensis*, gen. et sp. nov. from the type area, Subathu Formation, Subathu, Simla Himalayas, H. P. *Jour. Pal. Soc. India*, 23/24: 132–135. 3 figs. Jun. 1980.
 –Describes *Ishatherium subathuensis* on the basis of a partial second lower molar. The referred material includes an upper incisor and some “limb and girdle bones,” which are not described although they are said to indicate amphibious habits. The ?sir. vertebra described by Sahni et al. (1980) is here redescribed, and *Ishatherium* is said to be close to the ancestral sir.-moeritheriid stock.
 Subsequent writers have regarded *Ishatherium* not as a sir. but rather as an anthracobunid proboscidean (see Wells & Gingerich, 1983).
- x Sahni, Ashok; Kumar, Kishor; & Tiwari, B.N.
 1980. Lower Eocene marine mammal (Sirenia) from Dharampur, Simla Himalayas, H. P. *Current Science* (Bangalore, India), 49(7): 270–271. 1 fig. Apr. 5, 1980.
 –Reports an isolated first thoracic vertebra from the Subathu Formation. See also Sahni & Kumar (1980).
- Sahni, Ashok; & Mishra, Vijay Prakash
 1975. Lower Tertiary vertebrates from western India. *Pal. Soc. India Monogr.*, No. 3: 1–48. 6 figs. 6 pls. Apr. 7, 1975.
 –Reports sir. fossils from three separate horizons in Kutch, western India: *Protosiren fraasi* from the Middle Eocene (27–29, pl. 6), *Halitherium* from the Late Oligocene (35–37, pl. 6), and *Indosiren koenigswaldi* n.sp. from the Early

- Miocene (37–40, pl. 6). The material referred to *P. fraasi* consisted of a fragmentary pelvis, later referred by Gingerich et al. (1993) to the cetacean *Indocetus ramani*.
- Sahni, Ashok; & Mitra, Harish Chandra
1980. Neogene palaeobiogeography of the Indian subcontinent with special reference to fossil vertebrates. *Palaeogeogr. Palaeoclim. Palaeoecol.*, 31(1): 39–62. Figs. Jul. 1980.
–Mentions *Halitherium*.
- Said, M.: SEE Hilmy et al., 1979.
- x Said, Rajab Juma
1985. Sea cow stories. *Swara (Mag. of the East African Wildlife Soc.)*, 8(1): 34. 1 fig. Jan.–Feb. 1985.
–Recounts two traditional stories about the origin of sea cows, from the Digo and Giriama people of coastal Kenya, respectively.
- Said, Rushdi
1962. *The geology of Egypt*. Amsterdam & New York, Elsevier, xviii + 377. 71 figs. 10 pls.
- Said, Rushdi
1963. Note on the biostratigraphy of the Middle and Upper Eocene sections in Egypt. *Rev. Inst. Franç. Pétrole & Ann. Combustibles Liquides*, 18(11): 1500–1503.
- Said, Rushdi
1965. Egitto (Repubblica Araba Unita). In: *Enciclopedia del petrolio e del gas naturale*. Rome, Editore Carlo Colombo, Vol. 4: 8–76.
- St. Aubin, David J.: SEE ALSO Geraci & St. Aubin, 1987.
- St. Aubin, David J.; & Lounsbury, Valerie
1990. Oil effects on manatees: evaluating the risks. In: J.R. Geraci & D.J. St. Aubin (eds.), *Sea mammals and oil: confronting the risks*. New York, Academic Press (282 pp.), 241–251. 1 tab. 1 fig.
–Rev.: R.W. Davis, *Mar. Mamm. Sci.*, 9(3): 337–339, Jul. 1993.
- St. Clair, Thomas Staunton
1834. *A residence in the West Indies and America; with a narrative of the expedition to the island of Walcheren*. London, R. Bentley (2 vols.). Illus.
–Also publ. under the title *A soldier's recollections of the West Indies and America; with a narrative of the expedition to the island of Walcheren*; same publisher and date. Describes methods of hunting manatees by moonlight.
- Saint-Cricq, Laurent: SEE Marcoy, Paul.
- Saint-Hilaire, Isidore Geoffroy
1826. Lamantin, *Manatus*. In: *Dict. class. d'hist. nat.*, Vol. 9 (Io-Macis): 177–181.
–Allen 686. Gives a general history of sirs. (177–180) and accounts of *M. americanus* (180), *M. senegalensis* (180), and fossil sirs. (180–181). *M. latirostris* is considered as not well distinguished.
- Saint-Hilaire, Isidore Geoffroy
1837. [Communication on *Dinotherium*.] *C.R. Acad. Sci. Paris*, 4(12): 429–430. Read Mar. 20, 1836.
–In French.
- Saint-Pierre, J.H. Bernardin de: SEE Bernardin de Saint-Pierre, J.H.
- Saito, Tsunemasa: SEE ALSO Takahashi et al., 1979, 1983, 1986.
- xD Saito, Tsunemasa; Barron, John A.; & Sakamoto, Masamichi
1988. An early Late Oligocene age indicated by diatoms for a primitive desmostylian mammal *Behemotops* from eastern Hokkaido, Japan. *Proc. Japan Acad., Ser. B*, 64(9): 269–273. 2 figs.
–Concludes that diatoms support the radiometric age (27–29 Ma) determined for the specimens of *Behemotops* sp. from the Morawan Formation.
- D Sakae, Toshiro
1992. Comparison of mineralogical characteristics of tooth enamels of *Desmostylus* from California, USA, and Minowa, Japan. *Jour. Fossil Research*, 25(2): 37–42. 1 tab. 6 figs. Dec. 1992.
–In Japanese.
- D Sakai, E.
1935. On the locality of *Desmostylus*, south of Lake Sindi. *Jour. Geol. Soc. Japan*, 42(498): 161–162. [181?] Mar. 20, 1935.
–In Japanese.
- Sakamoto, Masamichi: SEE Saito et al., 1988.
- Sakamoto, Osamu: SEE ALSO Fujimoto & Sakamoto, 1978.
- D Sakamoto, Osamu
1983. On the occurrence of the two skeletons of *Paleoparadoxia tabatai* (Tokunaga) from Chichibu Basin, central Japan. *Bull. Saitama Mus. Nat. Hist.*, No. 1 (C. No. 19): 17–26. 1 tab. 5 figs. 2 pls. Mar. 1983.
–In Japanese; Engl. summ.
- D Sakamoto, Osamu
1987. [Present status of marine mammal fossils from the Chichibu Basin.] In: Y. Hasegawa (ed.), [*Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals.*] Japan, Ministry of Education, Aid for Scientific

Study, Synthetic Study A, Subject No. 61304010, 12–14. 1 fig. Mar. 1987.

—In Japanese.

D Sakamoto, Osamu

1988. [Metatarsal of *Paleoparadoxia* from the northeastern Chichibu Basin.] In: Y. Hasegawa (ed.), [Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals.]

Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 105–106. 2 figs. Mar. 1988.

—In Japanese.

Salacroux, Antoine Paulin Germain

1836. *Nouveaux élémens d'histoire naturelle contenant la zoologie, la botanique, la minéralogie et la géologie.*

Paris, Germer Baillière, vii + 970. 44 pls.

—Sirs., 190–191.

Sale, J.B.: SEE Bertram & Sale, 1975.

Salisbury, Charles A. “Lex”: SEE O’Shea & Salisbury, 1991.

x Salles, Waldemar Batista de

1967. *O Amazonas—o meio físico e suas riquezas naturais.*

Manaus, Editôra Sergio Cardoso, 1–180.

—Pop. acc. of manatees, largely quoted from Nunes Pereira (124–127).

Salm, Rodney V.; & Usher, Graham F.

1984a. The magical tears of the dugong.

Tigerpaper, 11(1): 31–32.

Salm, Rodney V.; & Usher, Graham F.

1984b. Untuk apa berburu dugong.

Suara Alam, 7(22): 16–18. 2 figs. Apr. 1984.

—In Indonesian.

Salomon, M.I.

1930. Considerations sur l’homologie de l’os lacrymal chez les vertebres superieurs.

Acta Zool., 11: 151–183. 27 figs.

Salvador, Vicente do

1931? *Historia do Brasil por Frei Vicente do Salvador natural da Bahia.* Ed. 3 (revised by C. de Abreu & R. Garcia).

São Paulo, Companhia Melhoramentos, 1–632.

—Contains a brief mention, dating from about 1627, of intensive manatee hunting in the Rio Real, on the Sergipe/Bahia border, Brazil (215).

x Sampaio, Francisco Xavier Ribeiro de

1850. Relação geographica historica do Rio Branco da America Portugueza.

Rev. Trimest. Hist. Geogr. (Jornal Inst. Hist. Geogr. Brasileiro), 13: 200–273.

—Includes the following entry in a list of fauna and flora found in the Rio Branco, a tributary of the

Rio Negro, Brazil (p. 259): {“*Vacca marinha*, Peixe boi, ou Monaf, que todos os tres nomes se dão ao grande animal que significam; o qual não tem de peixe mais do que viver n’agua: abundam nas vertentes e lagos do Rio Branco.”}

x Sander, Helen E.

1980. Dugong feeding habitats in the Manus Province. *Wildlife in Papua New Guinea*, 80/12: 1–31. 16 tabs. 7 figs.

—Abstr.: *Internatl. Symp. Biol. Manage. Mangroves Trop. Shallow Water Communs.*, 2: 46–47, 1980. Characterizes seagrass beds where dugongs were observed feeding, and concludes that they prefer beds with >20 g dry weight of leaf biomass (>48 g of total plant biomass) per square meter, higher than values recorded in Queensland. The presence of hunters may also influence dugongs’ choice of feeding sites.

Sanders, Albert E.

1974. A paleontological survey of the Cooper Marl and Santee Limestone near Harleyville, South Carolina (preliminary report).

Geologic Notes (South Carolina State Devel. Board, Div. Geol.), 18(1): 4–12. 4 figs.

—Reports the collection of an Eocene sir. skullcap [subsequently lost] from Dorchester County, South Carolina (8).

x Sanders, Albert E.

1980. Excavation of Oligocene marine fossil beds near Charleston, South Carolina.

Natl. Geogr. Soc. Research Repts., 12: 601–621. 8 figs.

—Reports a humerus cf. *Halitherium* and a tooth cf. *Metaxytherium* from the Chandler Bridge Formation (Late Oligocene, early-middle Chattian) (612).

x Sanderson, Ivan Terrance

1937. *Animal treasure.*

New York, Viking Press, 1–330. Illus.

—Account of an abortive manatee hunt and the successful trapping of manatees in a small creek at Mamfe, West Africa (266–268, 1 fig.).

x Sanderson, Ivan Terrance

1949. A brief review of the mammals of Suriname (Dutch Guiana), based upon a collection made in 1938.

Proc. Zool. Soc. London, 119(3): 755–789. 4 figs. 7 pls. Nov. 1949.

—P. 781: {“SIRENIA. Halicoridae. / *Manatus* sp. / No specimens collected. / *Native name.*—“Seicu.” Doubtless, a Taki-taki corruption of the English “Sea-Cow.” / Manatees are exceedingly common in the Nickerie River, whence they travel to the Coronie Swamp in the rainy season. They

are also met with in the further reaches of the Commewijne, Cosewijne, Saramacca and Courantijne Rivers, but they are hunted extensively and are exceedingly scarce in the other large rivers near the coast.”}

- x Sanger, Clyde
1974. International research centre in Guyana to study the saving of the manatee—the least understood of mammals. *Commonwealth Jour.*, Aug.–Sept. 1974: 23.
–Report of a conference on the establishment of the research center (see Anon., 1973a). Also discusses the use of manatees in weed control, and the birth (and presumably conception) of two manatees in captivity in Guyana.
- x Sanielevici, Henry
1926. *La vie des mammifères et des hommes fossiles déchiffrée à l'aide de l'anatomie et de la physiologie comparées de l'appareil masticateur*. Bucharest, Imprimerie de l'État, xciv + 660. 459 figs.
–Title-page bears imprint “Bulletin de la Société Roumaine des Sciences,” but with no volume or number indicated; possibly publ. as a separate. *Rev.: Homme Préhist.*, 13: 295–298? An elaborate and idiosyncratic treatise, arguing that most if not all mammals are primitively and persistently eaters of molluscs, insects, and other animal food—including sirs. (251–256, 523), which despite appearances are affirmed to be primarily molluscivores! The “petite histoire de ce livre” (525–532) is a revealing account of the genesis of the author's thinking.
- Sanson, Gordon D.: SEE Miller et al., 1980.
- x Santa-Anna Nery, Frederico José de
1885. *Le pays des Amazones; l'El-Dorado; les terres à caoutchouc*. Paris, L. Frinzine & Cie, xxiv + 382. 101 figs. 2 maps.
–Ed. 2: Paris, Guillaumin & Cie: xxxvi + 420. Illus. 1899. Italian transl.: Geneva, 1900. Brief account of the Amazonian manatee (67–68), with a drawing (71), and statistics on the manatee meat exported from the Rios Purús, Juruá, and Solimões in 1881–1882 (168). The material in the 1899 ed. may not be the same.
- x Santapau, H.; & Abdulali, Humayun
1961. The dugong, *Dugong dugon* (Müller), at Bombay; an incorrect record. *Jour. Bombay Nat. Hist. Soc.*, 58(3): 796. Dec. 1961.
–Corrects an erroneous report (in *The Gazetteer of Bombay City and Island*, vol. 1: 137, 1909) of a dugong at Bombay in 1849, which resulted from misreading a newspaper account of the stranding of a baleen whale in Bombay and the sighting of a dugong in Ceylon.
- Santerre, M. & R.: SEE Leatherwood et al., 1984.
- x Santiapillai, Charles
1981. On the ecology and conservation of the dugong, *Dugong dugon* (Müller, 1776) in Sri Lanka. *Tigerpaper*, 8(1): 2–6. 2 figs.
–Gen. acc. of dugong biology and status, mostly taken from previous literature but with some information gleaned from Sri Lankan fishermen.
- x Santos, Eurico
1945. *Entre o gambá e o macaco (vida e costumes dos mamíferos do Brasil)*. Rio de Janeiro, F. Briguiet & Cia, 1–298. Illus.
–Translates the manatee passage from Wallace (1853), lists indigenous vernacular names of *T. inunguis*, and discusses hunting methods and the use of manatee meat, fat, and hide in Amazonia (chap. 6: 155–159, fig. 43).
- x Santos, Joano dos
1814. History of eastern Ethiopia. In: J. Pinkerton (ed.), *A general collection of ... voyages and travels ...* London, Longman, Hurst, Rees, Orme, & Brown and Cadell & Davies, vol. 16: 337–737.
–Transl. from Portuguese. Ed. 1: Paris, 1684. Brief account of the dugong and the medicinal use of its tusks in what is now Mozambique (700–701).
- Sarich, Vincent M.: SEE ALSO Lowenstein et al., 1981; Rainey et al., 1984.
- x Sarich, Vincent M.
1977. Albumin phylogenetics. In: V.M. Rosenoer, M. Oratz, & M.A. Rothschild (eds.), *Albumin structure, function and uses*. New York, Pergamon Press (xiii + 397), 85–111. 3 tabs. 6 figs.
–Albumin evidence suggests that “manatees and elephants share a common ancestry subsequent to the divergence of other ‘ungulate’ groups... [Their albumins] are about as similar as those of pig and cow” (100).
- x Sarkar, S.K.; & Mitra, S.K.
1962. A note on the histological characteristics of sea-cow hide. *Jour. Roy. Microsc. Soc.*, 81(2): 93–94. 1 pl. Dec. 1962.
–Describes the hide and hair of the dugong and compares the hide with that of the Indian buffalo; considers dugong hide superior to buffalo for heavy industrial leather.
- Sato, J.: SEE ALSO Onodera et al., 1967.
- D Sato, J.; & Ijiri, Shoji
1977. On the molar teeth of *Paleoparadoxia tabataki*

(Tokunaga) from "Wainai Site," the latest Jomon Period.

Earth Science (Chikyu Kagaku), 31(4): 149–155. May 1977.

–In Japanese; Engl. summ.

Sato, Yoshio: SEE Kimura, Sato & Goto, 1978.

D Sato, Atsushi; Hashimoto, Kazuo; & Hasegawa, Yoshikazu

1989. Early Miocene desmostylid skull from Goyasu Formation, Iwaki City, Fukushima Prefecture, Japan.

Sci. Repts. Yokohama Natl. Univ., Sec. II (Biol. & Geol.), No. 36: 57–70. 3 tabs. 3 figs. 2 pls. Oct. 1989.

–In Japanese; Engl. summ. The specimen is considered "the earliest desmostylid to date in the Japanese Archipelago."

Satomichi, Tokuko: SEE Tabuchi et al., 1974.

Satsangi, P.P.; & Trivedy, A.N.

1978. Fossil sea cow from the Tertiary of Kutch.

Jour. Geol. Soc. India, 19(12): 571–576. Dec. 1978.

Saubade, A.M.: SEE Chavanon & Saubade, 1970.

Sauer, Carl Ortwin

1966. *The early Spanish Main*.

Berkeley, Univ. California Press, xii + 306. Illus.

–Briefly alludes to hunting of Caribbean manatees using remoras, nets, and harpoons (58).

x Sauer, Martin

1802. *An account of a geographical and astronomical expedition to the northern parts of Russia, for ascertaining the degrees of latitude and longitude of the mouth of the River Kovima; of the whole coast of the Tshutski, to East Cape; and of the islands in the Eastern Ocean, stretching to the American coast. Performed, by command of Her Imperial Majesty Catherine the Second, Empress of All the Russias, by Commodore Joseph Billings, in the years 1785, &c. to 1794. The whole narrated from the original papers, by Martin Sauer, secretary to the expedition.*

London, T. Cadell, Jr., & W. Davies, xxvi + 332 + 58. 14 pls. 1 map.

–States in passing, in discussing the fauna of Kodiak Island (p. 181): {"Sea cows were very numerous about the coast of Kamtshatka, and the Aleutan [sic] islands, at the time when they were first discovered; but the last of this species was killed in 1768 on Bering's island, and none have been ever seen since."}

Although this bald and unsupported statement is our sole authority for specifying 1768 as the date of the extinction of *Hydrodamalis*, it is corroborated by the fact that several subsequent

visitors to the Commander Islands made no mention of any sea cows surviving after that date (see K.E. v. Baer, 1840: 70), and purported sightings at various times down to the present have not been convincing (see Domning, 1978b: 135–139).

x Savage, Jay M.

1974. The Isthmian Link and the evolution of Neotropical mammals.

Los Angeles County Mus. Contr. Sci., No. 260: 1–51. 9 tabs. 5 figs. Jun. 18, 1974.

–Regards manatees as having arrived in South America in Eocene-Oligocene time (15, 20, 26, 29).

Savage, Robert Joseph Gay: SEE ALSO Tewari et al., 1977?.

Savage, Robert Joseph Gay

1967. Early Miocene mammal faunas of the Tethyan region. In: C.G. Adams & D.V. Ager (eds.), *Aspects of Tethyan biogeography*.

Systematics Assoc. Publ., No. 7: 247–282. 10 tabs. 3 figs.

Savage, Robert Joseph Gay

1969. Early Tertiary mammal locality in southern Libya. *Proc. Geol. Soc. London*, 1657: 167–171. 2 tabs. Sep. 19, 1969.

x Savage, Robert Joseph Gay

1971. Review of the fossil mammals of Libya. In: C. Gray (ed.), *Symposium on the geology of Libya*. Univ. of Libya, 215–225. 1 tab. 1 fig.

–Mentions the occurrences of Middle Eocene and Miocene sirs. in Libya; suggests that high sir. diversity in the Eocene indicates that they had fluvial rather than truly marine habits (219–221).

x Savage, Robert Joseph Gay

1975. *Prorastomus* and new early Tertiary sirenians from North Africa. [Abstr.] *Amer. Zool.*, 15(3): 824. Summer 1975.

–Restudy of the holotype of *Prorastomus sirenioides* demonstrates the presence of "4 premolars and 5 anterior teeth," an unfused petrosium, and otic similarities to condylarths. New Middle Eocene and Early Miocene Libyan sirs. include a "flat-tusked dugongid" [*Rytiodus*].

Savage, Robert Joseph Gay

1977. Review of early Sirenia.

Syst. Zool., 25(4): 344–351. 1 tab. 2 figs. "Dec. 1976" (publ. Feb. 8, 1977; read Aug. 21, 1975).

–Presents the first cladogram of the Sirenia ever published.

Savage, Robert Joseph Gay; & Hamilton, W.R.

1973. Introduction to the Miocene mammal faunas of Gebel Zelten, Libya.

- Bull. Brit. Mus. (Nat. Hist.), Geol.*, 22(8): 515–527. 3 tabs. 3 figs.
- x Savage, Robert Joseph Gay; & Tewari, B.S.
1977. A new sirenian from Kutch, India.
Jour. Pal. Soc. India (Jurij Alexandrovich Orlov Memorial Number), 20: 216–218. 3 figs.
–Reports *Metaxytherium* sp. indet. from the Lower Miocene, with new reports of sirs. from the Eocene of Somali and India and the Miocene of Iran, and a review of all fossil sir. occurrences in the Indian Ocean area.
- Savage, Robert Joseph Gay; & White, M.E.
1964. Two mammal faunas from the early Tertiary of central Libya.
Circ. Geol. Soc. London, 120: 2.
- x Savage, Robert Joseph Gay; & White, M.E.
1965. Exhibit: two mammal faunas from the early Tertiary of central Libya.
Proc. Geol. Soc. London, 1623: 89–91. Jul. 6, 1965 (read Feb. 3, 1965).
–Reports Lutetian (Middle Eocene) sirs. 80 miles west of Gebel Zelten; most of these occurred as headless carcasses (91).
- Saville-Kent, William: SEE Kent, William Saville.
- x Savinetsky, A.B.
1993. Ancient population dynamics of the sea cow (*Hydrodamalis gigas* Zimm., 1780) in the late Holocene.
Doklady Biol. Scis., 326(1–6): 403–405. 1 tab. 1 fig. Mar. 1993.
–Transl. from Russian; originally publ. in *Dokl. Akad. Nauk*, 326(3): 570–572, Sep. 1992. Radiocarbon dates on apparently reworked rib fragments from Bering Is. indicated ages of 500–2250 years. Based on the fact that most of the dates fell between 1000 and 800 years B.P., the author concludes that the population size declined as a result of climatic cooling about 2000 years ago and again during the Little Ice Age (14th–17th centuries A.D.). Given the small sample size and inadequate documentation of sampling procedure, this conclusion seems to go beyond the evidence.
- x Savory, Bryan W.
1958. A note on the dugong.
Tanganyika Notes & Records, No. 51: 255–258. 1 fig. Dec. 1958.
–Gen. acc. of sirs., and observations, records, and anecdotes of dugongs in East Africa.
- Scammon, Charles Melville: SEE ALSO Gunter, G., 1954.
- x Scammon, Charles Melville
1889. The sea-cow.
Overland Monthly, (2)14(84): 581–585. 2 figs. Dec. 1889.
–Pop. acc. of Florida manatees (581–582), including observations of two kept in Key West, and of Steller's sea cow (582–585), the latter mostly made up of quotations from Müller and Steller and illustrated with a figure of a manatee.
- Scaramella, D.
1975. On the mammals of Yemen (Y.A.R.) examined to the subspecies level.
Bull. Soc. Nat. Napoli, 84: 373–403.
- x Schad, Rebeca C.; Montgomery, G. Gene; & Chancellor, Deborah
1981. La distribucion y frecuencia del manati en el Lago Gatun y en el Canal de Panama.
ConCiencia (Univ. de Panama), 8(2): 1–4. 1 tab. 2 figs. Sep. 1981.
–Discusses the introduction of manatees into the Panama Canal in 1964 and subsequent reported sightings and mortalities. Estimates that no more than 25 manatees are in the Canal at present. Illustrates Spanish and Engl. posters used to solicit manatee reports.
- Schafarzic, Ferencz
1902. *Budapest és Szt.-Endre vidéke. 15. zóna/XX. rovat jelü lap. (1:75,000.)*
Budapest, Franklin-Társulat Könyvnyomdája.
–German ed., 1904. Mentions *Halitherium*, 39.
- x Schäfer, Wilhelm
1962. *Halitherium: Fossil und Leiche*.
Natur und Museum, 92(2): 53–56. 2 figs. Feb. 1962.
–Describes a skeleton of *Halitherium schinzii* (Oligocene) and experiments done with whale and pinniped carcasses to determine the rate and manner of disintegration of the sirenian's body.
- x Schäfer, Wilhelm
1977. Bericht des Direktors des Forschungsinstituts und Natur-Museums Senckenberg über das Jahr 1976.
Natur und Museum, 107(7): 191–197. 3 figs. Jul. 1, 1977.
–Reports the installation of a concrete-relief reconstruction of *Halitherium schinzii* in the Senckenberg Museum, Frankfurt a. M. (196–197).
- Schäfer, Wilhelm
1978. Bericht des Direktors des Forschungsinstituts und Natur-Museums Senckenberg über das Jahr 1977.
Natur und Museum, 108(7): 187–197. Jul. 1, 1978.
–Mentions *Halitherium*.
- Scharff, Robert Francis
1911. *Distribution and origin of life in America*.
London, Constable & Co., xvi + 497. 21 figs.
–Sirs., 278–280, 360.
- Scheffer, Victor B.: SEE ALSO Rice & Scheffer, 1968.
- x Scheffer, Victor B.
1942. A list of the marine mammals of the West Coast of North America.

Murrelet, 23(2): 42–47. May–Aug. 1942.

–Lists *Hydrodamalis gigas* as “exterminated in 1768” (46).

Scheffer, Victor B.

1967. Marine mammals and the history of Bering Strait. In: D.M. Hopkins (ed.), *The Bering Land Bridge*. Stanford Univ. Press, 350–363.

–See also W.S. Laughlin (1967) and D.M. Hopkins (1967). *Sirs.*, 358–361.

x Scheffer, Victor B.

1970. Growth layers in a dugong tooth.

Jour. Mamm., 51(1): 187–190. 2 figs. Feb. 20, 1970.

–Discusses the dugong dentition and the size of the tusks; suggests, on the basis of a study of a sectioned tusk, that finer growth layers in the dentin represent days, coarser layers lunar months. The calculated age, however, differs depending on which side of the tusk is used.

x Scheffer, Victor B.

1972. The weight of the Steller sea cow.

Jour. Mamm., 53(4): 912–914. 1 tab. Nov. 30, 1972.

–Based on Steller’s measurements and estimates and on scale models, calculates the minimum size of the largest sea cow as 8 m or 25 feet in length and 10 metric tons in weight.

x Scheffer, Victor B.

1973. The last days of the sea cow.

Smithsonian, 3(10): 64–67. 3 figs. Jan. 1973.

–Fictional account of a Russian boy’s encounter with the last individual of *Hydrodamalis*, illustrated with two artist’s reconstructions of the sea cow. Also relates a story, told to Scheffer by L. Stejneger, of how the latter acquired sea cow bones by bribing Russian workmen on Bering Island. Finally, summarizes recent studies on *Hydrodamalis*.

Scheffer, Victor B.

1976. *A natural history of marine mammals*.

New York, Charles Scribner’s Sons, 1–157.

–Rev.: *Sci. Amer.*, 237(4): 31–32, Oct. 1977.

Scheffer, Victor B.

1981. Newborn size in marine mammals.

Pacif. Discovery, 34(3): 19–26. 1 tab. 12 figs.

Scheffer, Victor B.; & Rice, Dale W.

1963. A list of the marine mammals of the world.

U.S. Fish & Wildlife Serv. Special Sci. Rept. Fisheries, No. 431: 1–12.

Schérer, Jean Benoît

1776. *Neue Nachrichten von denen neuentdeckten Insuln in der See zwischen Asien und Amerika; aus mitgetheilten Urkunden und Auszügen verfasst von J.L.S. [Johann Ludwig Schulze].*

Hamburg, F.L. Gleditsch.

–Mentions the hunting of *Hydrodamalis* on Bering Is. in the course of four Russian voyages to the Aleutians, 1754–1762 (38, 40, 45, 82). The sir. material is transcribed by Nordenskiöld (1881a: 274).

Scheuenstuhl, Gary: SEE Lowenstein & Scheuenstuhl, 1991.

x Schevill, William E.; & Watkins, W.A.

1965. Underwater calls of *Trichechus* (manatee).

Nature (London), 205(4969): 373–374. 3 figs. Jan. 23, 1965.

–Presents behavioral observations and sound spectrograms of the calls of free and captive Florida manatees; no evidence of echolocation was detected.

Schinz, Heinrich Rudolph

1824. *Naturgeschichte und Abbildungen der Säugethiere. Nach den neuesten Systemen zum gemeinnützigen Gebrauche entworfen, und mit Berücksichtigung für den Unterricht der Jugend bearbeitet.*

Zürich, Brodtmanns Lithographischer Kunstanstalt: vi + 417 + [8]. 177 pls. in atlas.

–Ed. 2, 1827. *Sirs.*, 392–397, pl. 174.

Schlegel, Hermann

1841. *Abhandlungen aus dem Gebiete der Zoologie und vergleichenden Anatomie. I. Beiträge zur Charakteristik der Cetaceen.*

Leiden, A. Arnz & Comp. (3 vols., 1841–1851), 1–44. Pls. 1–6.

Schlitter, Duane A.: SEE McLaren et al., 1986.

Schlosser, Max: SEE ALSO Yoshiwara & Iwasaki, 1902; Zittel & Schlosser, 1911, 1923.

Schlosser, Max

1889–1890. Über die Modificationen des Extremitätenskelets bei den einzelnen Säugethierstämmen.

Biol. Zentralbl., 9 & 10 [?]: 684–698, 716–729.

Schlosser, Max

1899. [Review of W. Leche’s “Untersuchungen über das Zahnsystem lebender und fossiler Halbaffen.”] *Neues Jahrb. Min. Geol. Pal.*, 1899(1), Ref.: 356–360.

–*Sirs.*, 351?

Schlosser, Max

1902. Beiträge zur Kenntniss der Säugethierreste aus den süddeutschen Bohnerzen.

Geol. Pal. Abh. (Koken), 9 (= n.s. 5)(3): 117–258. 3 figs. Pls. 6–10.

–Abstr.: *Jahresber. Anat. Entwickl.* (n.s.), 8(3): 108–110. Lists occurrences of *Metaxytherium Christoli* (115, 129, 134, 137–138).

Schlosser, Max

1911. Beiträge zur Kenntnis der oligozänen Landsäuge-

tiere aus dem Fayum, Ägypten.

Beitr. Pal. Geol. Oesterr.-Ung. Oriens, 24(2): 51-167. 1 tab. 1 fig. Pls. 9-16.

—Rev.: *Anthrop.* (Paris), 23: 417-423, figs. 1-3, 1912. *Sirs.*, 161.

Schmid, H.: SEE Vine & Schmid, 1987.

Schmidt, Oskar

1886. *The Mammalia in their relation to primeval times.* New York (Internat. Scientific Series, 53), xxii + 308. 51 figs.

—Original ed., Leipzig, 280 pp., 1884; other transl.: London, 1885; Paris, 1887; Turin, 1887; ed. 2, 1894. *Sirs.*, 242.

Schmidtgen, Otto

1911. Die Scapula von *Halitherium schinzi*.

Centralbl. Min. Geol. Pal. (Berlin), 1911: 221-223. 1 fig.

—Abstr.: *Geol. Zentralbl.*, 16: 713?; *Jahresber. Anat. Entwickl.* (n.s.), 15(3): 175?

Schmidtgen, Otto

1912. Neue Beiträge zur Kenntniss der hinteren Extremität von *Halitherium schinzi* Kaup.

Zool. Jahrb. (Suppl.), 15 (= Spengel Festschr.), vol. 2: 457-498. 2 figs. Pl. 29.

x Schmitz, O.J.; & Lavigne, D.M.

1984. Intrinsic rate of increase, body size, and specific metabolic rate in marine mammals.

Oecologia (Berlin), 62(3): 305-309. 2 tabs. 2 figs. —Data on *T. manatus* and other marine mammals show no difference between marine and terrestrial mammals in the relationship between size and rate of increase.

Schneider, J.: SEE Winn & Schneider, 1977.

Schneider, K.M.

1931-1934. Das Flehmen.

Zool. Garten, 4(10/12): 349-364 (1931); 7(7/9): 182-201 (1934).

—*Sirs.*, 349, 199.

Schnek, Arthur G.: SEE Jacquet et al., 1989.

Schober, W.; & Brauer, K.

1974. *Handbuch der Zoologie. Ein Naturgeschichte der Stämme des Tierreichs. Bd. 8, Mammalia, Lief. 52. Makromorphologie des Zentralnervensystems*, 2.

Berlin & New York, Walter De Gruyter, 1-296. 209 figs.

Schoenichen, W.

1903. Die Augen der im Wasser lebenden Säugetiere.

Prometheus, 14: 332-333.

Schoevaert, Damien: SEE Buffrénil & Schoevaert, 1989.

x Schoff, Wilfred H.

1920. *The ship "Tyre": a symbol of the fate of conquerors as prophesied by Isaiah, Ezekiel and John and fulfilled at Nineveh, Babylon and Rome.*

A study in the commerce of the Bible.

New York & London, Longmans, Green & Co., 1-156.

—Discusses the Biblical references to the use of dugong hide for the outer covering of the Tabernacle (10-11, 51-53, 77, 140).

Scholander, P.F.: SEE ALSO Irving et al., 1941.

Scholander, P.F.

1958. Counter current exchange—a principle in biology. *Hvalråd. Skr.*, 44: 1-24. 11 figs.

—Heat exchange in the flipper of *T. manatus* (14).

x Scholander, P.F.; & Irving, Laurence

1941. Experimental investigations on the respiration and diving of the Florida manatee.

Jour. Cell. Comp. Physiol., 17(2): 169-191. 2 tabs. 15 figs. Apr. 1941.

—Study of breathing frequency, heart rate, respiratory dimensions, gas exchange, and blood chemistry and oxygen capacity of manatees during forced dives. The observed results included a slowly developing bradycardia during diving, very low resting oxygen consumption, low sensitivity to carbon dioxide, no increase of blood lactic acid until completion of the dive, and hence a very complete isolation of the muscles from the general circulation during the dive.

Scholl, Johann Baptist: SEE Kaup & Scholl, 1834a, b.

x Schomburgk, Richard

1848. Versuch einer Fauna und Flora von Britisch-Guiana. Vol. 3 of: *Reisen in Britisch-Guiana in den Jahren 1840-1844.*

Leipzig, J.J. Weber, 534-1260.

—States (786) that *T. manatus* are frequently found at river mouths, but occur in the interior only during high water. However, they always remain below the falls of the Rio Branco. A missionary reported having kept a tame manatee for the past year at Fort São Joaquim on this river. *Sir.* material also in vol. 2: 156?

Schouteden, H.

1930. La faune du Congo. In: Louis Frank, *Le Congo Belge.*

Brussels, Vol. 2: 365-378.

—*Sirs.*, 370.

Schreber, Johann Christian Daniel von

1774-1775. *Die Säugthiere in Abbildungen nach der Natur, mit Beschreibungen.... Zweyter Theil.*

Erlangen, W. Walther'sche Kunst- und Buchhandlung, 191-280. Pls. 63-80.

—The entire work comprises 7 vols. + 3 vols. of pls., 1774-1846 (see also Schreber & Wagner, 1846). Dugong and manatee, 267-277 [1775]; manatee, pl. 80 [1774] (illustration after Buffon).

Schreber, Johann Christian Daniel von; & Wagner, Johann Andreas

1846. *Die Säugthiere in Abbildungen nach der Natur mit Beschreibungen... Siebenter Theil.*

Erlangen, in der Expedition des Schreber'schen Säugthier- und des Esper'schen Schmetterlingswerkes, viii + 427.

–Sirs., 103–160, pls. 378–385.

x Schreider, Helen; & Schreider, Frank

1970. *Exploring the Amazon.*

Washington, D.C., National Geographic Soc., 1–207. Illus.

–Mentions the manatee [*T. inunguis*] among fauna kept by animal dealer Mike Tsalickis in Leticia, Colombia (142); quotes Carvajal's account of Indians' use of manatee-hide shields (151).

x Schréter, Zoltán

1917. *Mediterranes Metaxytherium*-Skelett von Márcfalva.

Földt. Közöny, 47(1–3), 176–177. Jan.–Mar. 1917.

–Account of the excavation of a skeleton of *Metaxytherium petersi* in northwestern Hungary. The age of the specimen is not given but is Miocene according to Kretzoi (1951).

Schryver, H.F.: SEE Hintz et al., 1978.

Schteingart, C.D.: SEE Kuroki et al., 1988.

Schulte, Kenneth C.: SEE Minch et al., 1970.

Schultz, Ortwin: SEE ALSO Symeonidis & Schultz, 1973.

Schultz, Ortwin

1972. Eine Fischzahn-Brekzie aus dem Ottnangien (Miozän) Oberösterreichs.

Ann. Naturhist. Mus. Wien, 76: 485–490.

–Engl. summ.

Schumacher, G.H.

1973. The maxillo-mandibular apparatus in the light of experimental investigations. In: G.H. Schumacher (ed.), *Morphology of the maxillo-mandibular apparatus.*

Leipzig, G. Thieme, 13–25.

Schurz, W.L.

1926. The Amazon, father of waters.

Natl. Geogr. Mag., 49(4): 445–463. Illus. Apr. 1926.

–Includes two photos (subsequently reproduced in various other publications) of carcasses of Amazonian manatees and pirarucus killed by hunters on the Rio Purús, Brazil, and lined up on the riverbank (449, 450).

Schütz-Holzhausen, Damian von

1895. *Der Amazonas. Wanderbilder aus Peru, Bolivia und Nordbrasilien.*

Freiburg im Breisgau, Herdersche Verlagshandlung, xix + 444. 89 figs. 2 maps.

–Manatee, 200–201.

Schwarz, Ernst

1920. Huftiere aus West- und Zentralafrika.

Ergebn. Zweit. Deutsch. Zentralafr. Exped. 1910–1911. I, Zool., 15: 831–1044.

–Sirs., 857.

Schwarz, Ernst

1924. On the evolution and radiation of mammalian fauna.

Acta Zool., 5: 393–423.

–Sirs., 420.

x Schweder, G.

1893. Die nordische Seekuh, ein in kürzester Frist ausgerottetes Säugetier.

Korresbl. Naturf.-Ver. Riga, 36: 52–55.

–Gen. acc. of *Hydrodamalis* and its extermination, drawing heavily on Waxell's account (in Büchner, 1891).

x Schweigert, F.J.; Uehlein-Harrell, Stephanie; Hegel, Giesela von; & Wiesner, H.

1991. Vitamin A (retinol and retinyl esters), α -tocopherol and lipid levels in plasma of captive wild mammals and birds.

Jour. Veter. Med., Ser. A, 38(1): 35–42.

–Compares data from *T. manatus* with that from other mammals and birds.

Schweinfurth, Georg

1874. *The heart of Africa.*

New York, Harper & Bros. (2 vols.), Vol. 1: xvi + 559; Vol. 2: x + 521.

–French transl.: Paris, Libr. Hachette & Cie, 2 vols., 1875. *T. senegalensis*, 2: 159–160, 512 (138, 422 in Paris ed.).

Schwenzer, Jürgen

1972. Makrofossilien des Mainzer Beckens; Fundorte und Exkursionsnotizen.

Aufschluss, 23(11): 389–391. Nov. 1972.

Schwille, Friedrich

1960. Gammastrahlungsmessungen an fossilen Knochen und Zähnen aus dem Mainzer Becken und anderen Fundorten.

Jahresb. Mitt. Oberrhein. Geol. Ver., 42: 15–21.

Sclater, Philip Lutley

1866. Notice of additions to the Society's menagerie, and of the transmission of a manatee to the Society, by Mr. G. W. Latimer, of Porto Rico.

Proc. Zool. Soc. London, 1866(2): 201. Sep. 1866.

Sclater, Philip Lutley

1876. Short notice on *Manatus*.

Proc. Zool. Soc. London, 1875(4): 529. Apr. 1876.

x Sclater, Philip Lutley

1896. [On the additions to the Society's Menagerie during the month of January.]

Proc. Zool. Soc. London, 1896(1): 212. Jun. 1,

1896 (read Feb. 4, 1896).

—Reports a *T. inunguis* from the Rio Purus, Brazil, purchased Jan. 4, and lists four other manatees (*T. manatus*) previously received by the Society.

Sclater, Philip Lutley

1897. On the distribution of marine mammals.

Proc. Zool. Soc. London, 1897(2): 349–359. Pl. 24. Aug. 1897.

—?Abstr.: *Zoologist*, (4)1: 217? General outline of sir. distribution, 351–352.

Sclater, William Lutley

1891. *Catalogue of Mammalia in the Indian Museum, Calcutta. Part 2.*

Calcutta, Trustees of the Indian Museum: xxix + 375. Jun. 1891.

—Lists dugongs (*Halicore dugong* and *H. australis*), 326–327.

Scopoli, Johann Anton

1777. *Introductio ad historiam naturalem sistens genera lapidum, plantarum, et animalium hactenus detecta, caracteribus essentialibus donata, in tribus divisa, subinde ad leges naturae.*

Prague, Wolfgang Gerle, 1–506.

—Allen 344. *Manatus*, 490.

Scott, Alexander Walker

1873. *Mammalia, Recent and extinct; an elementary treatise for the use of the public schools of New South Wales.*

Sydney, T. Richards, govt. printer, xii + 141 + vii. —Sirs., 48–57.

Scott, Karen W.

1980. Antler and bone artifacts from the 1980 season at Colha, Belize. In: T.R. Hester, J.D. Eaton, & H.J. Shafer (eds.), *The Colha Project Second Season, interim report.*

San Antonio, Univ. Texas Center for Archaeol. Research, 317–326.

—Manatee-bone rasps, 324.

Scott, Michael D.: SEE ALSO Irvine & Scott, 1984.

x Scott, Michael D.; & Powell, James Arthur, Jr.

1982. Commensal feeding of little blue herons with manatees.

Wilson Bull., 94(2): 215–216. Jun. 1982.

—Reports observations of commensal feeding at rafts of water hyacinth on the St. Johns River, Florida.

Scott, Thomas G.; & Eschmeyer, Paul H. (eds.)

1981. *Fisheries and wildlife research: 1980.*

Denver, U.S. Fish & Wildlife Service, iv + 202. Illus.

—Sirs., 55, 134–136.

Scott, William Berryman

1913. *A history of land mammals in the Western Hemisphere.*

New York, Macmillan Co., xiv + 693. 304 figs. 32 pls.

—Rev.: *Sci. Prog.*, 9: 559?; *Science* (n.s.), 39: 615–616?; *Nature* (London), 93: 553? Sirs., 442.

Scott-Johnson, C.

1967. Sound detection thresholds in marine mammals. In: W.N. Tavolga (ed.), *Marine bio-acoustics. Vol. 2.*

London, Pergamon Press, 159–186.

—Summarizes Schevill & Watkins (1965).

Scudder, S.: SEE Wing & Scudder, 1980.

x Seale, Alvin

1915. Note regarding the dugong in the Philippine Islands.

Philippine Jour. Sci., Sect. D, 10(3): 215–217. 1 pl. May 1915.

—Account of a dugong caught off Luzon, with notes on natives' observations of dugongs.

Searles, Stan W.: SEE Asper & Searles, 1981; Beusse et al.; O'Shea, Rathbun et al., 1985.

Sedu, Duba: SEE Olewale & Sedu, 1980.

Seeley, Harry Govier

1876. Resemblances between the bones of typical living reptiles and the bones of other animals.

Jour. Linn. Soc. (Zool.), 12: 155–195.

—Sirs., 177.

Seeman, Berthold: SEE Pim & Seeman, 1869.

x Sehm, Gunter G.

1988. The ri is the Irrawaddy dolphin (comment on Williams [1986] and Greenwell [1987]).

Cryptozoology, 6: 145–149. 1 fig. Feb. 1988.

—Disputes T.R. Williams' identification of the "ri" of New Ireland as the dugong, proposing instead that it is *Orcaella brevirostris*. See Williams (1988) for response.

Seki, M.: SEE Tanaka & Seki, 1962.

Sekido, M.: SEE Asano et al., 1978.

x Sellards, E.H.

1916. Fossil vertebrates from Florida: a new Miocene fauna; new Pliocene species; the Pleistocene fauna.

Rept. Florida State Geol. Surv., 8: 77–119. Pls. 10–14.

—Lists *T. manatus* among Pleistocene fauna from the Withlacoochee River (104).

Selley, L.J.: SEE Ronald et al., 1978.

Semon, Richard Wolfgang

1903. *Im australischen Busch und an den Küsten des Korallenmeeres. Reiseerlebnisse und Beobachtungen eines Naturforschers in Australien, Neu-Guinea und den Molukken.* Ed. 2.

Leipzig, W. Engelmann, xvi + 565. 86 figs. 4 maps.

—Ed. 1, 1896. Engl. ed., London & New York,

Macmillan & Co. Ltd., 1899.

- Semper, Karl Gottfried
 1869. *Die Philippinen und ihre Bewohner. Sechs Skizzen. Nach einem im Frankfurter Geographischen Verein 1868 gehaltenen Cyclus von Vorträgen.* Würzburg, A. Stuber: 1-143. 2 maps.
 -Sirs., 28-29.
- Semper, Karl Gottfried
 1873. *Die Palau-Inseln im Stillen Ocean. Reisererlebnisse.* Leipzig, F.A. Brockhaus, ix + 372. 1 map.
 -Engl. transl.: Univ. of Guam, Micronesian Area Research Center, 1982. Use of dugong-atlas bracelets, 114.
- Şen, Şevket: SEE Thomas et al., 1985.
- Senior, William: SEE ALSO Anonymous ("Redspinner"), 1881.
- Senior, William
 1888. *Near and far: an angler's sketches of home sport and colonial life.* London, Sampson Low, Marston, Searle, & Rivington, xv + 304.
 -Dugong, 202-213.
- D Sera, Gioacchino Leone
 1954. La posizione zoologica del genere mammale miocenico *Desmostylus*.
Arch. Zool. Ital. (Naples), 38: 485-506. 4 figs. Feb. 20, 1954.
- x Sereno, Paul C.
 1982. An Early Eocene sirenian from Patagonia (Mammalia, Sirenia).
Amer. Mus. Novit., No. 2729: 1-10. 1 tab. 4 figs. Jun. 4, 1982.
 -Redescribes *Florentinoameghinia mystica* Simpson, 1932, from the *Notostylops* beds of Argentina, and refers it (probably erroneously) to the Sirenia.
- Serres, Marcel de: SEE ALSO Gervais & Serres.
- Serres, Marcel de
 1833. Mémoire sur la question de savoir si des animaux terrestres ont cessé d'exister depuis l'apparition de l'homme, et si l'homme a été contemporain des espèces perdues, ou du moins qui ne paraissent plus avoir de représentans sur la terre.
Bibl. Univ. Sci. Arts, 53: 277-314.
 -Allen 800. African manatee ("*T. manatus*") in ancient sculpture, 303?
- x Serres, Marcel de
 1838. Note sur les animaux des terrains tertiaires marins supérieurs découverts dans le sol immergé des environs de Montpellier.
Ann. Sci. Nat. (Zool.), (2)9: 280-292.
 -Allen 942. Reports "*Manatus*" and "*Halicore medius*" [n.comb.] from [Pliocene] beds at Montpellier (285-286). Note that the new combination was misapplied to material specifically different from Desmarest's "*Hippopotamus*" *medius*; the Montpellier sirenian is now called *Metaxytherium serresii*.
- Serres, Marcel de
 1840. Note sur la découverte d'un squelette entier de *Metaxytherium*.
C.R. Acad. Sci. Paris, 11: 819-820.
 -Engl. transl.: *Edinburgh New Philos. Jour.*, 32: 173-174, 1842? Abstrs.: *L'Institut*, 8(360): 392 [416?], Nov. 19, 1840 (Allen 1005); *Rev. Mag. Zool.* (Paris), 1840: 348? Repr.: *Ann. Sci. Nat.* (Paris), (2)16: 14-16, 1841?
- Serventy, Vincent
 1966. *A continent in danger.* London, Deutsch, 1-240. Illus.
 -Dugong, 93-96.
- Setzer, Henry W.: SEE Meester & Setzer, 1971.
- x Severin, Kurt
 1955. Grazers of the sea.
Nat. Hist. (New York), 64(3): 147-149. 5 figs. Mar. 1955.
 -Pop. acc. of captive Florida manatees at Sea Zoo, South Daytona, Florida. A letter from Howard M. Mossman commenting on this article appeared in the May 1955 issue, p. 225.
- x Sey, O.
 1980. Amphistome parasites of the dugong and a revision of the subfamily Solenorchiinae (Trematoda: Paramphistomidae).
Acta Zool. Acad. Sci. Hungar., 26(1-3): 223-228. 6 figs.
 -Concludes that the dugong has only one species of amphistome parasite (*Solenorchis travassosi*), of which *S. baeri*, *S. gohari*, *S. naguibmahfouzi*, *Indosolenorchis hirudinaceus*, and *Zygocotyle* sp. (of Dollfus, 1950) are synonyms.
- Sguros, Peter L.
 1966. *Research report and extension proposal submitted to the Central and Southern Florida Flood Control Board on use of the Florida manatee as an agent for the suppression of aquatic and bankweed growth in essential inland waterways.* Boca Raton, Florida Atlantic Univ., Dept. of Biol. Sci.: 1-57 + appendices.
- x Shackley, Myra
 1992. Manatees and tourism in southern Florida: opportunity or threat?
Jour. Environ. Manage., 34(4): 257-265. 1 tab. 4 figs.
 -Outlines the problems of manatee conservation in Florida, and concludes pessimistically that manatee-related tourism itself has become such a

source of environmental stress that long-term manatee survival in the state seems unlikely.

Shane, Susan H.

1981. Abundance, distribution, and use of power plant effluents by manatees (*Trichechus manatus*) in Brevard County, Florida.

NTIS Document No. PB 81-147019: 1-240. Jan. 1, 1981.

x Shane, Susan H.

1983a. Manatees and power plants.

Sea Frontiers, 29(1): 40-44. 6 figs. Jan.-Feb. 1983.

-Pop. acc. of Florida manatee aggregations at artificial and natural warm-water refugia.

x Shane, Susan H.

1983b. Abundance, distribution and movement of manatees (*Trichechus manatus*) in Brevard County, Florida.

Bull. Mar. Sci., 33(1): 1-9. 1 tab. 3 figs.

-Presents aerial and land survey data, 1978-1980, showing seasonal changes in abundance and distribution. Documents both winter aggregations at power plants, and almost equally predictable warm-season aggregations in marinas and dredged coves. Also documents movements and site fidelity of known individuals.

x Shane, Susan H.

1984. Manatee use of power plant effluents in Brevard County, Florida.

Florida Scientist, 47(3): 180-187. 1 tab. 3 figs.

-Documents the inverse correlation between manatee numbers at two power plants and air and water temperatures in the area, 1978-1980; describes manatee behavior in relation to the warm-water plumes; and recommends that no new artificial warm-water effluents be constructed north of the species' traditional winter range.

x Sharma, P.N.; & Gupta, A.N.

1971. *Paracochleotrema indicum* gen. nov. sp. nov. (Trematoda: Digenea) from India.

Folia Parasitol. (Prague), 18(3): 285-288. 1 fig. Sep. 1971.

-Describes a new trematode from the nasal passages of the dugong, and reviews and rediagnoses the family Opisthotrematidae.

Shattuck, George Burbank

1904. Geological and geographical distribution of species of Maryland Miocene.

Maryland Geol. Surv., Miocene: xciii-cxxxvii.

-Sirs., xciv.

Shaul, Wendy; & Haynes, Ann M.

1986. Manatees and their struggle to survive.

Jamaica Jour., 19(3): 29-36. 12 figs. Aug.-Oct. 1986.

Shaw, George

1800. *General zoology or systematic natural history... Vol. I. Part 1. Mammalia.*

London, G. Kearsley, xiii + 248. 70 pls.

-Allen 461 (the second of two items erroneously given this number). The whole work comprises 14 vols, 1800-1826. *Trichechus* (including the Sirenia + the walrus), 233-248; *T. Dugong*, 239; *T. Borealis* (mainly = *Rhytina borealis*), 240-244; *T. Australis*, 244-245, pl. 69; *T. Manatus* (including as "varieties" *T. Clusii* from the West Indies and *T. Amazonius* from South America), 245-248; and *T.? Hydropithecus*, Steller's "sea-ape." Allen says: "The history of the Sirenia ... is ... purely a compilation."

Shaw, J.J.: SEE Lainson et al., 1983.

x Shaw, Norton

1857. Description of the ajuh, a kind of whale, found by Dr. Vogel in the River Benué (Central Africa) in September 1855. Translated and communicated by Dr. Shaw.

Rept. Brit. Assoc. Adv. Sci., 26th Meeting (1856): 98-99.

-French transl.: *L'Institut*, 25(1208): 61-62, Feb. 25, 1857. A description of the external appearance and habits of the West African manatee, by Vogel. Followed by a note (R. Owen, 1857b; q.v.) that compares the "ajuh" to other sirs. and proposes for it the name *Manatus Vogelii*.

Shawver, Lisa J.

1974. North American wildlife: the vanishing act.

Science News, 105(23): 368-370. 5 figs. Jun. 8, 1974.

Sheffield, D.: SEE Kaiser et al., 1981.

x Shepard, Charles U.

1833. Geological observations upon Alabama, Georgia and Florida.

Amer. Jour. Sci. Arts, 25(1): 162-173. Oct. 1833.

-Allen 839. Reports [Pleistocene?] teeth and bones of "*Manatus americanus*" from "Suannee spring," Florida (164).

Sheppard, Charles; Price, Andrew; & Roberts, Callum

1992. *Marine ecology of the Arabian region: patterns and processes in extreme tropical environments.*

London, Academic Press, 1-359. Illus.

-Discusses dugongs and their role in the seagrass community (151, 153, 214-216).

Sherman, Eloise B.: SEE Caldwell et al., 1969.

Shibata, A.: SEE Kawaguchi & Shibata, 1972.

D Shibata, Ken; Yamaguchi, Shoichi; Ishida, Masao; & Nemoto, Takabumi

1981. Geochronology of the *Desmostylus*-bearing formation from Utanobori, Hokkaido, Japan.

Bull. Geol. Surv. Japan, 32(10): 545-550.

- In Japanese; Engl. summ. Dates the *Desmostylus* horizon to circa 13.7–13.8 Ma.
- Shibata, T.: SEE Asano et al., 1978.
- Shikama, Tokio: SEE ALSO *Desmostylus* Research Committee; Takai et al., 1952; Tan & Shikama, 1965; Yabe et al., 1952.
- D Shikama, Tokio
- 1957a. On the desmostyloid skeletons. *Nat. Sci. & Mus.* (Tokyo, Natl. Sci. Mus.), 24(1/2): 16–21. 2 pls.
–In Japanese; Engl. summ.
- D Shikama, Tokio [et al.?]
- 1957b. *Palaeontology*. Vol. 2. Tokyo, Asakura.
–Desmostyilia, 552–557.
- D Shikama, Tokio
- 1966a. On some desmostylian teeth in Japan, with stratigraphical remarks on the Keton and Izumi desmostyliids. *Bull. Natl. Sci. Mus.* (Tokyo), 9(2): 119–170. 16 tabs. 8 figs. 6 pls. Jun. 15, 1966.
- D Shikama, Tokio
- 1966b. Study on the skeletons of Japanese desmostyliids (excluding the skull). *Fossils (Kaseki)*, No. 11: 41–42. Jul. 30, 1966.
–In Japanese.
- D Shikama, Tokio
- 1966c. Postcranial skeletons of Japanese Desmostyilia. Limb bones and sternum of *Desmostylus* and *Paleoparadoxia*, with considerations on their evolution. *Pal. Soc. Japan Special Paper*, No. 12: iii + 202. 31 tabs. 116 figs. 12 pls.
–See also Shikama (1968).
- xD Shikama, Tokio
1968. Additional notes on the postcranial skeletons of Japanese Desmostyilia. *Sci. Rept. Yokohama Natl. Univ., Sec. II*, No. 14: 21–26. 5 figs. Pls. 3–6. Jan. 1968.
–Supplement to Shikama (1966c), listing errata in the description of the Izumi *Paleoparadoxia* skeleton. Also emends several of the figures of foot bones; gives a revised discussion of the skeleton's kinetics; and gives photographs of the mounted skeleton.
- Shikama, Tokio
1971. Ushinawareta seibutsu. [The lost animal.] *Asahi Weekly (Shukan Asahi)*, No. 2720: 74–75. 3 figs. Feb. 12, 1971.
–In Japanese. Pop. acc. of Pliocene *Hydrodamalis* in Japan (see Shikama & Domning, 1970).
- x Shikama, Tokio; & Domning, Daryl Paul
1970. Pliocene Sirenia in Japan. *Trans. Proc. Pal. Soc. Japan*, (2)80: 390–396. 3 figs. Pl. 44. Dec. 20, 1970 (read Jun. 27, 1970).
–Japanese summ. Reports a rib of *Hydrodamalis* sp. from the Late Pliocene Lower Sarumaru Formation, Do-ai, Nagano Prefecture, Honshu. This was the first record of a fossil sir. in Japan. Briefly reviews other records of Pacific hydrodamalines, and inadvertently coins the new combination *M[etaxytherium]. vanderhoofi* (395).
- xD Shikama, Tokio; Hasegawa, Yoshikazu; & Otsuka, Hiroyuki
1973. Geological range of mammals in the Japanese Neogene. In: Neogene biostratigraphy and radiometric dating of Japan. *Mem. Geol. Soc. Japan*, 8: 137–141. 2 figs.
–In Japanese; Engl. summ. Summarizes the stratigraphic ranges of *Hydrodamalis* sp., *Desmostylus*, and *Paleoparadoxia*.
- Shikhobalova, N.P.: SEE Skrzabin et al., 1951.
- Shiller, Jo: SEE Boever et al., 1977.
- Shilov, Vasily: SEE Brandt, A., 1871; Pekarskiy, P.P., 1869.
- Shinohara, Satoshi; Kimura, Masaichi; & Furusawa, Hitoshi
1985. Steller's sea-cow (*Hydrodamalis gigas*) from the Nopporo Hills in the Ishikari Lowland, Hokkaido, Japan. In: M. Goto, M. Takahashi, M. Kimura, & H. Horikawa (eds.), Evolution and adaptation of marine vertebrates. *Assoc. Geol. Collaboration in Japan, Monogr.*, 30: 97–117. 1 tab. 21 figs. 4 pls. Dec. 1985.
- Shipman, W.: SEE Dempster & Shipman, 1969.
- x Shisler, Michael
1987. Shells, sharks, and a log-built bug-eye: the maritime museums at Solomons and St. Michaels present a rich history of Bay life. *Mid-Atlantic Country*, July 1987: 34–?. Illus. –P. 34: {"... 'Pepper' Langley [master woodcarver at the Calvert Marine Museum, Solomons, Maryland] will be glad to tell you his theory that Chessie [the legendary Chesapeake Bay monster] is just a wayward manatee that never returned to the subtropical waters of Florida. Pepper remembers rowing to work at the old Davis Shipyards in Solomons and seeing manatees in the creeks that form Solomons Harbor."}
- Shokita, S.: SEE Nishiwaki et al., 1982.
- x Short, R.V.
1984. Hopping mad. In: D.G. Garlick & P.I. Korner (eds.), *Frontiers in physiological research*. Cambridge, Cambridge Univ. Press, 371–386. 15 figs.
–Gen. acc. of dugongs and their physiology (382–384). States (383–384) that they “were fortunate in being able to karyotype a male and a

female dugong, both of which had a diploid number of 50, again with many more metacentrics and submetacentrics than the elephants." This brief statement was the first report of the dugong's chromosome number.

- Shoshani, Jeheskel: SEE ALSO Czelusniak et al., 1990; Domning, Rice et al., 1982; Tassy & Shoshani, 1988.
- xD Shoshani, Jeheskel
1986. Mammalian phylogeny: comparison of morphological and molecular results. *Molec. Biol. Evol.*, 3(3): 222–242. 8 tabs. 4 figs. May 1986.
–Presents alternative cladograms and extensive lists of character transformations. Considers the Sirenia and Desmostylia to be sister groups within more or less traditional versions of the "Paenungulata."
- Shoshani, Jeheskel
1993. Hyracoidea-Tethytheria affinity based on myological data. In: F.S. Szalay, M.J. Novacek, & M.C. McKenna (eds.), *Mammal phylogeny. Vol. 2. Placentals*. New York, Springer-Verlag (321 pp.), 235–256. 2 tabs. 10 figs.
- Shoshani, Jeheskel; Goodman, Morris; Barnhart, Marion I.; Prychodko, William; & Mikhelson, Viktor M.
1981. [Blood cells and proteins in the Magadan mammoth calf: immunodiffusion comparisons of *Mammuthus* to extant paenungulates and tissue ultrastructure.] In: N.K. Vereshchagin & V.M. Mikhelson (eds.), [*Magadan baby mammoth, Mammuthus primigenius (Blumenbach)*]. Leningrad, "Nauka:" 191–220. 4 tabs. 14 figs.
–In Russian.
- x Shoshani, Jeheskel; Goodman, Morris; Prychodko, William; & Czelusniak, John
1978. Cladistic analysis of the Paenungulata by computer. [Abstr.] *Amer. Zool.*, 18(3): 601. Summer 1978.
–42 nondental morphological characters (tarsus, carpus, and skull) confirm serological evidence that the Sirenia and Proboscidea form a monophyletic group, joined by the Hyracoidea and then by the Tubulidentata.
- x Shoshani, Jeheskel; Lowenstein, Jerold M.; Walz, Daniel A.; & Goodman, Morris
1986. Proboscidean origins of mastodon and woolly mammoth demonstrated immunologically. *Paleobiology*, 11(4): 429–437. 5 tabs. 4 figs. Fall 1985 (publ. Feb. 14, 1986).
–Concludes that, among non-proboscidean species tested, *T. manatus* is immunologically most similar to proboscideans (431–436).
- xD Shotwell, J. Arnold
1950. New locality of *Desmostylus hesperus* Marsh, from the Astoria Miocene. [Abstr.] *Geol. Soc. Amer. Bull.*, 61(12): 1541.
–Reports a "fragmental skull with teeth" from Astoria, Oregon, and notes that the craters on the summits of many *Desmostylus* molar cusps are probably due to wear, as suggested by Marsh.
- Shufeldt, R.W.
1887. The manatees. *Forest & Stream*, 29: 244–245. 4 figs. Oct. 20, 1887.
–Gen. acc. of manatees and other sirs. Mentions sighting one that "had drawn itself partly out on the muddy ooze of the bank" of the Coatzacoalcos R., southern Mexico.
- Shufeldt, R.W.
1889. Remarks on the extinct mammals of the United States. *Amer. Field*, 32(17–22): [38 pp.?]. 12 figs.
- Sibbald, Jean H.
1990. *The manatee*. Minneapolis, Dillon Press, Inc. (Dillon Remarkable Animals Books), 1–60. Illus.
–Children's book.
- x Sibert, John R.
1983. *Ri-ality: a mermaid in the hand?* (Comment on Wagner [1982].) *Cryptozoology*, 2: 159–161. Winter 1983.
–Suggests that the "ri" of New Ireland is some sort of marine mammal, but urges caution in interpreting Melanesian terms that refer, at least in part, to spiritual entities.
- x Sibert, John R.
1985. Semantics versus cryptozoology (comment on Wagner et al. [1983]). *Cryptozoology*, 3: 144–145. Apr. 1985.
–Discusses the report of Wagner et al., concludes that the "ri" may indeed be a dugong, and suggests that the terms "ri" and "ilkai" may denote entities or concepts not strictly zoological. See R. Wagner (1985) and J.R. Greenwell (1985) for responses.
- Sichevskaya, Yevgeniya Konstantinovna: SEE Sinel'nikova et al., 1985.
- Sickenberg, Otto: SEE ALSO Pia & Sickenberg, 1934.
- Sickenberg, Otto
- 1927a. Ein neuer Fund einer Sirene aus dem marinen Miozän des Burgenlandes. *Verh. Zool.-Bot. Ges. Wien*, 77(3): 103–106.
- Sickenberg, Otto
- 1927b. Über einen neuen Fund einer tertiären Seekuh. *Forsch. Fortschr.* (Berlin), 3: 278–279. 1 fig.
–Reports a skull of *Metaxytherium petersi* from the Miocene of Austria.
- Sickenberg, Otto
1928. Eine Sirene aus dem Leithakalk des Burgenlandes. *Denkschr. Akad. Wiss. Wien, Math.-Natw. Kl.*,

101: 293–323. 6 figs. 2 pls.

–?Abstr.: *Anz. Akad. Wiss. Wien*, 65: 149–150. Describes a skull from the Miocene of Austria, on the basis of which he refers the species *Metaxytherium petersi* to the new genus *Thalattosiren*.

Sickenberg, Otto

1929a. Ein Schädelstück von *Manatherium delheidi* Hartl.
Pal. Zs., 11(2): 86–101. 3 figs. Pls. 3–4. Jul. 22, 1929.

Sickenberg, Otto

1929b. Eine tertiäre Seekuh aus dem St. Margarethner Steinbruch.
Burgenland, 1: 12.

x Sickenberg, Otto

1931. Morphologie und Stammesgeschichte der Sirenen. . . I. Die Einflüsse des Wasserlebens auf die innere Sekretion und Formgestaltung der Sirenen. *Palaeobiologica* (Wien), 4(6/7): 405–444.
–Presents anatomical, ontogenetic, and phylogenetic evidence that neoteny, arising from dysfunction of the thyroid and/or pituitary glands as a result of chronic oxygen deficiency and high iodine content of food, is a pervasive feature of sir. development and evolution.

Sickenberg, Otto

1933. Die Einflüsse des Wasserlebens auf die innere Sekretion und Formgestaltung der Sirenen. *Forsch. Fortschr.* (Berlin), 9(29): 427–429. Oct. 10, 1933.

Sickenberg, Otto

1934a. Kontinentalverschiebung, Klimawechsel und die Verbreitung der tertiären landbewohnenden Säugetiere.
Biol. Gen. (Vienna), 10: 267–300. 4 figs.

Sickenberg, Otto

1934b. Beiträge zur Kenntnis tertiärer Sirenen. I. Die eozänen Sirenen des Mittelmeergebietes. II. Die Sirenen des belgischen Tertiärs. *Mém. Mus. Roy. Hist. Nat. Belgique*, No. 63: 1–352. 10 tabs. 52 figs. 11 pls. Dec. 31, 1934.
–One of the most valuable works on fossil sirs., this massive monograph was conceived as a continuation of Abel's (1913a) work on the skull of *Eotherium aegyptiacum*. Finding himself unable to complete his projected study of Mediterranean Eocene sirs., Abel turned the project over to his student Sickenberg, who in this work describes the postcrania of *E. aegyptiacum*; covers in detail the other Egyptian Eocene forms *E. (Eosiren) abeli*, n.sp., *E. (Eosiren) libycum*, *E. stromeri*, n.sp., and *Protosiren fraasi*; *Prototherium veronense* (Eocene, Italy); *Protosiren(?) dubia* (Eocene, France); and fragmentary Eocene sirs. from Transylvania and Hungary. In the second part he

describes the fossil sirs. of Belgium: *Halitherium schinzi* forma *delheidi* (Oligocene), a new combination based on Hartlaub's *Manatherium*; and *Miosiren kocki* (Miocene). Sickenberg thereby filled in some significant gaps in the sir. record by his meticulous descriptions of several taxa that had previously been little more than names.

D Sickenberg, Otto

1938. Ist *Desmostylus* eine Sirene?
Palaeobiologica (Vienna), 6(2): 340–357.

Sidney, Samuel

1852. *The three colonies of Australia: New South Wales, Victoria, South Australia; their pastures, copper mines, & gold fields.*
London, Ingram, Cooke, & Co., xvi + 17–425. Illus.

Siegfried, Paul

1965. *Anomotherium langewieschei* n. g. n. sp. (Sirenia) aus dem Ober-Oligozän des Dobergs bei Bünde (Westfalen).
Palaeontographica A, 124: 116–150. 30 figs. 7 pls. Mar. 1965.

x Siegfried, Paul

1967. Das Femur von *Eotheroides libyca* (Owen) (Sirenia).
Pal. Zs., 41(3/4): 165–172. 2 figs. Pl. 17. Oct. 1967.
–Describes a femur from the Upper Eocene of the Fayum and compares it with that of *Halitherium schinzii*. Concludes that the hind limb could not have protruded from the body in *Eotheroides*, though a vestigial tibia may have been present.

Sigurdsson, J.B.; & Yang, C.M.

1990. Marine mammals of Singapore. In: Chou Loke Ming & P.K.L. Ng (eds.), *Essays in zoology. Papers commemorating the 40th anniversary of the Department of Zoology, National University of Singapore.*
Singapore, Dept. Zool., Natl. Univ. of Singapore (476 pp.). 25–37. Illus.

x Sikes, Sylvia

1974. How to save the mermaids.
Oryx, 12(4): 465–470. 3 figs. Jun. 1974.
–Discusses the status of *T. senegalensis* in Nigeria, including individuals kept in captivity; describes the harpooning technique used by the Kabawa tribe; proposes ranching of manatees for meat as a means of conservation. Fauna Preservation Society funding for Sikes' research was announced in *Oryx*, 12(2): 167, Oct. 1973.

x Silas, E.G.

1961. 'Occurrence of the sea cow, *Halicore dugong* (Erxl.), off the Saurashtra coast.'
Jour. Bombay Nat. Hist. Soc., 58(1): 263–266. Apr. 1961.

—Comments on Mani's (1960) paper of the same title, with notes on dugong behavior (especially use of the flippers) and occurrences and captures in India.

Silas, E.G.

1964. Marine mammals. In: *Book of Indian animals*. Bombay, Bombay Nat. Hist. Soc., 304–316. Pl. 69.
—Publ. 1965?

Silas, E.G.; & Fernando, A. Bastian

1988. The dugong in India—is it going the way of the dodo?
Proc. Symp. Endangered Marine Animals & Marine Parks (Cochin, India, Jan. 12–16, 1985), 1: 167–176. 1 fig. Oct. 1988.

Silberman, Ulrike

1929. Zur vergleichenden Morphologie des Zwischengewebes im Säugerhoden.
Zs. Ges. Anat., Abt. 1, Zs. Anat. Entwickl., 90(5/6): 597–613. 21 figs.

x Siler, Walter L.

1964. A Middle Eocene sirenian in Alabama.
Jour. Pal., 38(6): 1108–1109. Nov. 1964.
—Reports a rib fragment from the Gosport Sand (Claiborne Group), Monroe County, Alabama.

Silva, Bernardo da Costa e: SEE Costa e Silva, Bernardo da.

Silva, José Bonifacio de Andrada e: SEE Andrada e Silva, José Bonifacio de.

Silva, Vera Maria F. da: SEE Best et al.; Rosas et al., 1991.

Silva Guimarães, João Joaquim da: SEE Guimarães, João Joaquim da Silva.

Silva Rondon, Cândido Mariano da: SEE Rondon, Cândido Mariano da Silva.

Silveira, Estanislau Kostka Pinto da: SEE Pinto da Silveira, Estanislau Kostka.

Silveira, Simão Estacio da: SEE Estacio da Silveira, Simão

Silverberg, D.J.; & Morris, John G.

1988. The role of nutrients and energy in the winter diet selection of the West Indian manatee (*Trichechus manatus*) at Homosassa Springs, Florida. [Abstr.] *Florida Scientist*, 51 (Suppl. 1): 51.

x Simenstad, Charles A.; Estes, James A.; & Kenyon, Karl W.

1978. Aleuts, sea otters, and alternate stable-state communities.
Science, 200: 403–411. 2 tabs. 5 figs. Apr. 28, 1978.
—Mentions the former role of *Hydrodamalis gigas* in nearshore marine communities of the Aleutians (409).

x Simionescu, Ion

1931. Mamifere marine din Sarmaticul dela Balcic.
Acad. Română, Mem. Sect. Ştiinţif. (Bucharest)

(3)8: 145–157. 14 figs.

—French summ. Reports a marine mammal fauna from the Sarmatian (Miocene) of Balcic, Romania, including a rib of "*Manatus (maeoticus) Eichw.*" (146, 154–155, 157).

Simkins, Cleveland Sylvester

1937. *History of the human teeth*. Philadelphia, P. Blakiston's Son & Co., Inc., viii + 329. 111 figs.

x Simmons, Nancy

1992. A wetsuit for a manatee.
Wildlife Conservation, 95(2): 9. 1 fig. Mar.–Apr. 1992.
—Brief pop. acc. of the use of custom-made flotation gear in the rehabilitation of a boat-injured manatee at Sea World of Florida.

Simon, Noel: SEE ALSO Fisher et al., 1969.

Simon, Noel; & Géroudet, Paul

1970. *Last survivors—the natural history of animals in danger of extinction*. New York, World Publ. Co., 1–275. Illus.
—Dugong, 247–254, color illus.

Simon, Pedro

1627. *Primera parte de las noticias historiales de las conquistas de Tierra Firme en las Indias Occidentales*. Cuenca, D. de la Yglesia, 1–671 + [40].
—Various later eds.

Simoneau, E.L.

- 1974? *Les animaux du territoire français des Afars et des Issas*. Djibouti, publ. by the author.

Simonetta, A.M.: SEE Funaioli & Simonetta, 1966.

Simons, Elwyn L.: SEE ALSO Fleagle et al., 1986.

Simons, Elwyn L.

- 1968a. Early Cenozoic mammalian faunas—Fayum Province, Egypt. Part I. African Oligocene mammals: introduction, history of study, and faunal succession.
Peabody Mus. Bull., No. 28: 1–21, 103–105. 1 fig. Nov. 20, 1968.
—Sirs., 8, 15.

Simons, Elwyn L.

- 1968b. Hunting the "dawn apes" of Africa.
Discovery, 4(1): 19–32. 10 figs. Fall 1968.

x Simpson, Donald A.

1956. Eugenie is a lady! (– or, how wrong can you be!)
Aquarium Jour., 27(2): 54, 57, 74. Cover photo. Feb. 1956.
—Pop. acc. of the dugong at Steinhart Aquarium, San Francisco, and its transport from the Palau Islands. The author assumes the animal to be a female, but its death and autopsy prior to publication revealed the opposite, as noted by the

editor, who evidently added the article's subtitle.

- x Simpson, George Gaylord
1929a. Pleistocene mammalian fauna of the Seminole Field, Pinellas County, Florida.
Bull. Amer. Mus. Nat. Hist., 56(8): 561–599. 22 figs. Feb. 19, 1929.
–The faunal list includes the following (p. 564): {"SIRENIA / *Trichechus* sp. Tooth, rib fragments."}
- xD Simpson, George Gaylord
1929b. The dentition of *Ornithorhynchus* as evidence of its affinities.
Amer. Mus. Novit., No. 390: 1–15. 2 figs. Dec. 6, 1929.
–Refutes Abel's idea of the relationship of *Desmostylus* to monotremes (12–13).
- x Simpson, George Gaylord
1929c. Hunting extinct animals in Florida.
Nat. Hist. (New York), 29(5): 506–518. 14 figs. Sep.–Oct. 1929.
–Mentions Miocene and Pleistocene fossil sirs. in Florida (508, 510–511), and gives a photograph of the site of discovery of a Miocene sir. [*Hesperosiren*] in Gadsden County (518).
- x Simpson, George Gaylord
1930a. Sea sirens: the strange mammals from which came the ancient ideas of mermaids and sirens.
Nat. Hist. (New York), 30(1): 41–47. 6 figs. Jan. 1930.
–Pop. acc. of Recent and fossil sirs. Comments on possible West Indian or African origins of the name "manatee" (43).
- Simpson, George Gaylord
1930b. Tertiary land mammals of Florida.
Bull. Amer. Mus. Nat. Hist., 59(3): 149–211. 2 tabs. 31 figs. Jun. 5, 1930.
–Mentions sirs. at Quincy (158) and Bone Valley (184–185), Florida.
- xD Simpson, George Gaylord
1932a. Fossil Sirenia of Florida and the evolution of the Sirenia.
Bull. Amer. Mus. Nat. Hist., 59(8): 419–503. 2 tabs. 23 figs. Sep. 6, 1932.
–A comprehensive and judicious review of the order that formed a major and much-cited milestone in sirenian paleontology. Reviews previous knowledge of American fossil sirs., gives a synoptic classification with diagnoses of suprageneric taxa (without noting that two new subfamilies, Dugonginae and Hydrodamalinae, are being established), and describes new taxa from Florida: *Hesperosiren crataegensis*, n.gen.n.sp. (Miocene), *Felsinotherium ossivalense*, n.sp., and *F. floridanum*, n.comb. (both considered Pliocene but now known to be Miocene). The name *Halitherium alleni*, n.sp., is also given to previously published specimens from South Carolina. Pleistocene occurrences of *Trichechus* in Florida are discussed, the remaining fossil sirs. of the world are reviewed, and the osteology of the three Recent genera is detailed in an attempt to decipher their origins. Finally, the history of study of sir. affinities is summarized, along with the fossil and Recent distribution of the better-known genera.
- x Simpson, George Gaylord
1932b. Mounted skeletons of *Eohippus*, *Merychippus*, and *Hesperosiren*.
Amer. Mus. Novit., No. 587: 1–7. 3 figs. Dec. 15, 1932.
–Describes and illustrates the *Hesperosiren* mount in the American Museum of Natural History, and comments on previous restorations of *Halitherium schinzii* (5–7).
- xD Simpson, George Gaylord
1932c. A new classification of mammals.
Bull. Amer. Mus. Nat. Hist., 59(5): 259–293. Mar. 18, 1932.
–Presents a classification of the Sirenia to the family level (Trichechiformes: Prorastomidae, Dugongidae, Trichechidae; Desmostyliiformes: Desmostylidae) (281–282), with comments (292).
- x Simpson, George Gaylord
1941a. Vernacular names of South American mammals.
Jour. Mamm., 22(1): 1–17. Feb. 14, 1941.
–Suggests that the name "manatee" is derived from the Carib *manatí* = (a woman's) breast (14).
- x Simpson, George Gaylord
1941b. Some Carib Indian mammal names.
Amer. Mus. Novit., No. 1119: 1–10. Jun. 6, 1941.
–States (p. 1) that Simpson (1941a) was "written after the present paper but published first." Of the two, this paper is the more detailed and informative. It lists *yalawa*, *kayumoru*, and several variants of the latter as names for the manatee (erroneously supposed to be *T. inunguis* rather than *T. manatus*) in various Venezuelan Carib dialects. Concludes that the name *manatí* was derived from Carib words for "(a woman's) breast" (9).
- x Simpson, George Gaylord
1942. The beginnings of vertebrate paleontology in North America.
Proc. Amer. Philos. Soc., 86(1): 130–188. 23 figs. Sep. 1942.
–P. 177: {"The occurrence of sirenian bones along the Atlantic coast from New Jersey to Georgia had

been observed [by 1842], but identification had gone no further than to establish their generally manatee-like character.”}

x D Simpson, George Gaylord

1945. The principles of classification and a classification of mammals.

Bull. Amer. Mus. Nat. Hist., 85: xvi + 350. Oct. 5, 1945.

—Presents a revised classification of the Sirenia (including desmostylians) to genus; recognizes four trichechiform families (Prorastomidae, Proto-sirenidae, Dugongidae, Trichechidae) (135–136, 240, 251–252). Resurrects *Halianassa* as a senior synonym of *Metaxytherium*, thereby causing much later instability in nomenclature. Comments on Owen's term “Mutilata” (= Sirenia + Cetacea) (214).

x Simpson, George Gaylord; & Paula Couto, Carlos de

1981. Fossil mammals from the Cenozoic of Acre, Brazil. III—Pleistocene Edentata Pilosa, Proboscidea, Sirenia, Perissodactyla and Artiodactyla. *Iheringia, Sér. Geol.*, 6: 11–73. 2 tabs. 32 figs. Apr. 15, 1981.

—A mandible, 3 molars, and a skullcap from the upper Rio Juruá are described (by Paula Couto, not Simpson as indicated; Simpson, pers. commun. to Domning, Dec. 17, 1981) and referred to *Trichechus inunguis* (48–49, 69); but see Domning (1982b: 603–604).

Simpson, H.H., Sr.: SEE Jenks & Simpson, 1941.

Sinclair, D.F.: SEE Marsh & Sinclair, 1989a, 1989b.

x Sinclair, W.F.

1897. The dugong.

Nature (London), 57(1470): 198. Dec. 30, 1897.

—Letter to the editor. Suggests that a description of “seal” flesh in the *Christian Topography* of Cosmas of Alexandria, a 6th-century Egyptian monk (London, Hakluyt Society, 1897), probably pertained to the dugong. Also mentions the sale in London of “potted dugong” from Queensland.

Sinel'nikova, Valentina Nikolayevna: SEE ALSO Dubrovo & Sinel'nikova, 1971.

D Sinel'nikova, Valentina Nikolayevna; Brattseva, Greta Mikhaylovna; Dubrovo, Irina Aleksandrovna; & Sichevskaya, Yevgeniya Konstantinovna

1985. [Subdivision and paleontological characteristics of the Neogene section of Kavano-Utkholok Harbor (western Kamchatka).] In: *Korrel'yatsiya kaynozoykskikh tolshch Dal'nogo Vostoka. Trudy vostochnoy kompleksnoy geologicheskoy ekspeditsii. Chast' I. [Correlation of the Cenozoic strata of the Far East. Works of the Eastern Interdisciplinary Geological Expedition. Part I.]*

Moscow, 84–157. 1 tab. 14 figs. 5 pls.

—In Russian. Reports a specimen of *Desmostylus*, 123–127, 148, pl. 1.

Singh, G.: SEE Tewari et al., 1977(?).

Singh, M.P.: SEE Bajpai et al., 1987.

Singh, Pratap: SEE Bajpai et al., 1987.

Siniff, Donald B.: SEE Packard et al., 1986.

Sinzov, Ivan Fedorovich

1900. Geologische und paläontologische Beobachtungen im Südrussland.

Denkschr. [= Zapiski] Neuruss. Univ. (Odessa) 79, 347–412. 6 pls.

x Sittler, Claude

1972. Le Sundgau, aspect géologique et structural.

Sci. Géol., Bull. (Strasbourg), 25(2–3): 93–118.

—Notes the presence of vertebrae of *Halitherium schinzii* in lower Rupelian (Oligocene) deposits bordering the Sundgau region of Alsace (113).

Sivadas, M.: SEE Krishna Pillai et al., 1989.

Sivak, J.G.: SEE West et al., 1991.

Sjöstedt, Y.

1897. Die Säugethiere des nordwestlichen Kamerungebietes.

Mitt. Forsch. Gel. Deutsch. Schutzgebieten, 10: 25–45.

—Sirs., 45.

Skrjabin, K.I.; Shikhobalova, N.P.; & Mozgovoy, A.A.

1951. [Key to parasitic nematodes, Vol. II. *Oxyurata* and *Ascaridata*.]

Moscow, Izdatel'stvo Akad. Nauk SSSR: 1–631.

—In Russian.

Slade, D.D.

1888. On certain vacuities or deficiencies in the crania of mammals.

Bull. Mus. Compar. Zool., 13: 241–246. 2 pls.

—Sirs., 244.

Slade, Robert; Preen, Anthony R.; & Bowerman, Martin

1989. Discover dugongs.

Underwater Geographic, No. 25: 24–27. 7 figs. Jun. 1989.

—Comprises 3 separate articles: “Nature's survivors” by Slade; “Some current dugong research” by Preen; and “Dugong & commercial fishermen—there's room for both” by Bowerman; plus a letter to the editor from Tony and Cathy Tubbenhauer.

Slaughter, Bob H.: SEE James & Slaughter, 1974.

x Sleeper, Barbara

1980a. The case of the mistaken manatees.

Adventure Travel, 2(8): 42–47. 6 figs. Jan. 1980.

—Notice: *Adventure Travel*, 2(7): 87, Dec. 1979. Pop. acc. of manatees and manatee research and conservation efforts in Florida.

- Sleeper, Barbara
1980b. Mermaids of Crystal River.
Wildlife, 22(3): 22. Mar. 1980.
- x Sleeper, Barbara
1981. Gone condo: development of Florida's coastal waterways could be disastrous for the endangered manatee.
Animals, 114(2): 16–20. 4 figs. Apr. 1981.
–Pop. acc. of Florida manatees.
- Sleeper, Barbara
1984. Manatee: North America's most unusual mammal struggles for survival.
Pacific Discovery, 37(1): 14–23. 11 figs. Jan.–Mar. 1984.
- x Sleeper, Barbara
1986. A far cry from a sea nymph.
Audubon, 88(2): 86–99. 15 figs. Mar. 1986.
–Pop. acc. of Florida manatees.
- x Sleeper, Barbara
1987. Manatees: forging troubled waters.
Animals, 120(3): 18–22. 5 figs. May/June. 1987.
–Pop. acc. of Florida manatees.
- Sleeper, Barbara
1988. Sleuthing by satellite.
Animals, 121(2): 22–27. 10 figs. Mar./Apr. 1988.
- Sleeper, Barbara
1990. Manatees.
Whalewatcher, 24(1): 3–7. Illus.
- Slijper, Everhard J.
1931. Über Verletzungen und Erkrankungen der Wirbelsäule und Rippen bei den Cetaceen.
Anat. Anz., 71(7/9): 156–185. 17 figs. Jan. 24, 1931.
–Dugong ribs, 161.
- Slijper, Everhard J.
1936. Die Cetaceen: vergleichend-anatomisch und systematisch. Ein Beitrag zur vergleichenden Anatomie des Blutgefäß-, Nerven- und Muskelsystems, sowie des Rumpfskelettes der Säugetiere, mit Studien über die Theorie des Aussterbens und der Foetalisation.
Capita Zool., 7: vii + 590. 256 figs.
–Sirs.: 41, 65, 79, 87–89, 95, 98, 108–110, 114, 117, 134, 142, 147, 172, 192–195, 240–241, 245–246, 249, 261, 263–264, 286–289, 295, 297–298, 323, 335, 366, 378, 385, 391, 446, 449, 453–455, 462–464, 470–472, 481–482, 488, 491–492, 494, 525–526, 530.
- x Slijper, Everhard J.
1946. Comparative biologic-anatomical investigations on the vertebral column and spinal musculature of mammals.
Verh. Nederl. Akad. Wetens., Afd. Natuurk., (2)42(5): 1–128. 8 tabs. 125 figs.
–Includes observations on the spinal column, back muscles and associated structures in *Trichechus* and *Dugong* (28, 42–43, 46–47, 50–53, 71–78, 111–112, 114, 120; tabs. 1, 3, 5, 6).
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 –Recognizes three species, supposed to be stratigraphically successive, in the Late Oligocene deposits of the Linz Basin, Austria: *Halitherium pergense* (Toula), n.comb., *H. christoli* Fitzinger, and *H. abeli*, n.sp. The available material of these forms and their stratigraphic contexts are described or redescribed, and they are concluded to be transitional forms between *Halitherium* and *Metaxytherium*. Bone histology of sirs. is discussed, and some apparent differences among the three species in the internal structure of the ribs are pointed out. Concludes that the terms pachyostosis and osteosclerosis are inappropriate for Tertiary sirs., and proposes instead the term "Ponderosität" to describe their bone histology, which is adapted to provide ballast for diving.
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 –Gives some statistics on dugongs captured in Ceylon in 1958.
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10 ml; water, 1,044 ml.

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Jour. Helminthol., 54(4): 309–327. 3 tabs. 30 figs. 3 pls. Mar. 9, 1981.
—Redescribes *Heterocheilus tunicatus* and *Paradujardinia halicoris*, giving new locality records; redefines the Heterocheilinae to include these and 6 other genera; suggests that ascaridoids of sirs. were derived from those of fluvial lower vertebrates.
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1983. Ascaridoid nematodes of sirenians—a new species in the Senegal manatee.
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—Describes *Heterocheilus domningi*, n.sp., from *T. senegalensis*, and compares it with *H. tunicatus*; suggests that the distribution of these parasites supports a South American rather than African origin for manatees. Also reports *H. tunicatus* from *T. manatus*.
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—Reconstruction of *Hydrodamalis*, 1052, pl. 90.
- Stache, Guido
1867. Die geologischen Verhältnisse der Fundstätte des Halitherium-Skelettes bei Hainburg an der Donau. *Verh. Geol. Reichsanst. Wien*, 1867(7): 141–144. Read Apr. 16, 1867.
- Stadum, Carol J.: SEE Susuki & Stadum, 1978.
- Stahl, Agustín
1882. *Fauna de Puerto-Rico. Catálogo del gabinete zoológico del Dr. A. Stahl en Bayamon...* Puerto Rico, Impr. del “Boletín Mercantil,” 1–248.
- x Stanbury, Peter J.
1978. *Australia's animals: who discovered them?* Sydney, Univ. of Sydney, Macleay Museum: 1–124. Illus. Sep. 1978.
—Quotes accounts of Australian dugongs by William Dampier (1688, 1699) and Nathaniel Portlock (1792) (18–19).
- Stannius, Hermann F.
1840. Erster Bericht über das zootomisch-physiologische Institut der Universität Rostock. In: *Erster Bericht von dem zootomisch-physiologische Institut der Universität Rostock*. Rostock, J.M. Oeberg (24 pp.): 1–5.
—P. 3: {“Unter den zahlreich vorhandenen Säugthierschädeln befinden sich z. B. ... Bruchstücke eines Schädels von *Manatus americanus*.”}
- Stannius, Hermann F.
1845. Beiträge zur Kenntniss der amerikanischen Manati's. *Rektorats-Programm zur Geschichte der Naturwissenschaftlichen Institut der Universität Rostock*. Rostock, Adler's Erben: 1–37. 2 pls.
—Describes a dissection of *T. inunguis*.
- Stannius, Hermann F.
1849. Beschreibung der Muskeln des Tümmlers (*Delphinus phocaena*). *Müllers Arch. Anat.*, 1849: 1–41.
—Sirs., 14, 16, 22, 31, 32, 35, 36, 41.
- Stapley, W.
1912. The occurrence and development of cervical ribs in man and some of the mammals that have abandoned quadrupedal progression. *Proc. Roy. Soc. Victoria* (n.s.), 25: 82–104.

- Stark, Barbara L.: SEE ALSO Bradley et al., 1983.
- Stark, Barbara L.; & Voorhies, Barbara
 1978. Future research directions. In: B.L. Stark & B. Voorhies (eds.), *Prehistoric coastal adaptations: the economy and ecology of maritime Middle America*. Acad. Press, 275–304.
- Steadman, David W.: SEE Watters et al., 1984.
- Stedman, J.M.
 1889. Researches on the anatomy of *Amphistomum fabaceum* Diesing. *Proc. Amer. Soc. Microscopists*, 11: 85–101.
- x Stedman, John Gabriel
 1796. *Narrative, of a five years' expedition against the revolted Negroes of Surinam, in Guiana, on the wild coast of South America; from the year 1772, to 1777: elucidating the history of that country, and describing its productions, viz. quadrupedes, birds, fishes, reptiles, trees, shrubs, fruits, & roots; with an account of the Indians of Guiana, & Negroes of Guinea*. London, J. Johnson & J. Edwards (2 vols.), Vol. 2. Illus.
 –Allen 444. Various later eds. & transl. Reprs.: Barre (Mass.), Imprint Soc., 1971 (2 vols.); Amherst (Mass.), Univ. Massachusetts, 1972 (1 vol.). Describes the near-capsizing of a boat, supposedly by a manatee (1: 221), and gives a tolerably accurate description and illustration of a manatee encountered in Surinam (2: 175–176, pl. facing 176). Stedman also mentions “mermaids” described to him, which he takes to be fish, though his description of them better fits manatees (2: 177). Also mentions the natives’ fear of the “Watra Mama,” but offers no identification of it (2: 178). In 1971 & 1972 eds., sir. material at 121–122, 316–317.
- x Steel, Cathy
 1983. Vocalization patterns and corresponding behavior of the West Indian manatee (*Trichechus manatus*). [Abstr.] *Dissert. Abstrs. Internatl. B. Sci. Engin.*, 43(10): 3160–3161. Apr. 1983.
 –Outlines the general results of recordings in captive and natural environments. Nine categories of adult vocalizations were established; sexual and age differences were observed; and vocalizations in contexts of approach, submergence, play, interactions, and distress were recorded.
- x Steel, Cathy; & Morris, John G.
 1982. The West Indian manatee: an acoustic analysis. [Abstr.] *Amer. Zool.*, 22(4): 925.
- A less detailed abstract appeared in *Florida Scientist*, 45 (Suppl. 1): 40. Summarizes data from recordings of sounds made by wild and captive manatees.
- Steele, J.G.
 1972. *The explorers of the Moreton Bay district 1770–1830*. Brisbane, Univ. of Queensland Press, 1–386.
 –Dugong, 3, 27; dugong nets, 22, 34, 38.
- Stein, Christian Gottfried Daniel
 1829. *Handbuch der Naturgeschichte für die gebildeten Stände, Gymnasien und Schulen, besonders in Hinsicht auf Geographie.... Dritte verbesserte und vermehrte Auflage*. Leipzig, T.C. Hinrichsche Buchhandlung (2 vols.), Vol. 1: viii + 382; Vol. 2: xxxii + 274, 15 pls.
 –Allen 737. Sirs., 1: 82–83.
- Steinbacher, G.
 1958. Von den Seekühen von Miami. *Orion*, 13: 371–?
- Steinberg, Peter D.: SEE Estes & Steinberg, 1988, 1989.
- Steininger, Fritz F.: SEE ALSO Pervesler & Steininger, 1986; Rabeder & Steininger, 1976.
- Steininger, Fritz F.
 1969. Das Tertiär des Linzer Raumes. In: *Katalog Geologie und Paläontologie des Linzer Raumes: 35–52*. 1 tab. 14 pls.
- x Steininger, Fritz F.
 1986. Erste Ergebnisse über Untersuchungen zu Ernährungsstrategien des Arawaken-Siedlungsplatzes Pointe der Caille, NNW Vieux Fort, St. Lucia, West Indies. [or] First results of researches on nutrition strategies at the Arawak settlement at Pointe de Caille, NNW Vieux Fort, St. Lucia, West Indies. *Mitt. Prähist. Kommission Oesterr. Akad. Wiss.*, 23: 37–50, 69–75. 1 tab. 7 pls.
 –Text in both German (37–43) and Engl. (69–75). Reports bones of *T. manatus* from an archaeological site on St. Lucia (42, 74, pl. 7).
- Steinitz, Heinz: SEE Hellwing & Steinitz, 1971.
- Steinmann, Gustav
 1907. *Einführung in die Paläontologie*. Ed. 2. Leipzig, Wilhelm Engelmann, xii + 542. 902 figs.
 –First ed., 1903. Abstrs.: *Natw. Wochenschr.*, 24: 408–412?; *Geol. Mag.*, (5)5: 38? Rev.: *Nature* (London), 77: 558, 1908? Sirs., 503.
- Steinmann, Gustav
 1912. Die Bedeutung der Paläontologie für die Abstammungslehre. *Proc. Internatl. Zool. Congr.* (Boston, 1907), 7: 714–732.
 –Sirs., 718.

- Steinmann, Gustav; & Döderlein, Ludwig
1890. *Elemente der Paläontologie*.
Leipzig, Wilhelm Engelmann, xix + 848. 1,030
figs.
–Sirs., 708.
- Stejneger, Leonhard: SEE ALSO Anonymous, 1883;
Lucas, F.A., 1891; Scheffer, V.B., 1973; Steller, G.W.,
1925.
- x Stejneger, Leonhard
1883. Contributions to the history of the Commander
Islands. No. 1. Notes on the natural history,
including descriptions of new cetaceans.
Proc. U.S. Natl. Mus., 6(4–6): 58–89. Jun. 20, 22,
23, 1883.
–Gives an account of collecting *Hydrodamalis*
bones on Bering Island (59, 61–62); discusses
individual and sexual variation in the skulls and
mandibles (78–83); defends 1768 as the date of
the sea cow's extermination (83–84); concludes
that its geographic distribution included the
Aleutians but probably not the northern Bering
Sea (84). Lucien M. Turner's report (cited here) of
sea cow bones in the Aleutians, and of an Aleutian
vernacular name for the sea cow (*kukh-sukh-tukh*),
was never published so far as I know; but see also
F.W. True (1884b: 136). Notes the destruction of
Hydrodamalis specimens by a fire in the Irkutsk
museum (84); discusses the Kamchadal name
kapustnik for the sea cow (85); and weighs the
evidence concerning the shape of the animal's
caudal fin (85–86).
- x Stejneger, Leonhard
1884a. Contributions to the history of the Commander
Islands. No. 2. Investigations relating to the date
of the extermination of Steller's sea-cow.
Proc. U.S. Natl. Mus., 7(12): 181–189. Jul. 29,
1884.
–Criticizes Nordenskiöld's (1881a) reports of
Hydrodamalis alive at Bering Island after 1768.
Includes detailed transcripts of Stejneger's inter-
rogation of witnesses, and concludes that the
report circa 1780 was due to a chronological error
and that the report circa 1854 was based on a
female narwhal.
- x Stejneger, Leonhard
1884b. Ueberblick über meine Reise nach Kamtschatka
und den Commander-Inseln (1882 und 1883).
Deutsche Geogr. Blätter, 7(1): 106–108.
–Alludes to “twelve skulls and four series of
vertebrae with arm bones, shoulder blades” and
other bones of *Hydrodamalis* that he collected on
Bering Island (107–108).
- Stejneger, Leonhard
1884c. Fra det yderste Østen. IV. Kapitlet om Berings-
Øen i Nordenskiöld's “Vega-færden.”
Naturen (Kristiania), 8(5): 65–69. May 1884.
–Sir. material ?also in other parts of this series of
articles: 1882 (vol. 6): 69, 71?, 1883 (vol. 7):
111?, 1885 (vol. 9): 150–157?
- x Stejneger, Leonhard
1885. Eine Umsegelung der Berings-Insel. Herbst 1882.
Deutsche Geogr. Blätter, 8(3): 225–273. 2 figs.
Pls. 5–6.
–Engl. transl. of sir. material: F.A. Lucas (1891:
626). Account of the excavation of a badly
weathered *Hydrodamalis* skeleton (256–257).
- x Stejneger, Leonhard
1886. On the extermination of the great northern sea-cow
(*Rytina*). A reply to Professor A. E. Nordenskiöld.
Jour. [Bull.] Amer. Geogr. Soc., 18(4): 317–328.
–A reply to Nordenskiöld's (1885a,b) response to
Stejneger's (1884a) criticisms of Nordenskiöld's
(1881a) reports of *Hydrodamalis* alive at Bering
Island after 1768.
- x Stejneger, Leonhard
1887. How the great northern sea-cow (*Rytina*) became
exterminated.
Amer. Naturalist, 21(12): 1047–1054. Dec. 1887.
–A final refutation of Nordenskiöld's arguments
for the survival of *Hydrodamalis* past 1768,
backed up by statistics on sea-cow hunting in the
Commander Islands. Hopefully the last word on
the subject.
- Stejneger, Leonhard
1891. [Title?]
Proc. Geogr. Soc. Bremen.
- x Stejneger, Leonhard
1893. Skeletons of Steller's sea-cow preserved in the
various museums.
Science, 21(523): 81. Feb. 10, 1893.
–Mentions several specimens overlooked by B.W.
Evermann (1893).
- Stejneger, Leonhard
1897. The Russian fur-seal islands.
U.S. Fish. Comm. Bull., 16(1): 1–148. Pls. 1–66.
–Also issued separately, Washington, 1896. Also
in *Seal and salmon fisheries of Alaska* (4 vols.),
Vol. 4, Washington, 1898: 613–754. Rev.: *Geogr.*
Jour., 9: 322–324, 1897? Steller's sea cow, 20.
- Stejneger, Leonhard
1936. *Georg Wilhelm Steller: the pioneer of Alaskan
natural history*.
Cambridge, Harvard Univ. Press, xxiv + 623.
Frontisp. 1 fig. 29 pls.
–Repr.: Farnborough (England), Gregg Internatl.
Publishers Ltd., 1970. The definitive biography of
the discoverer of *Hydrodamalis*. Includes an
appendix analyzing in detail the origin and variant

versions of the eyewitness drawings of the sea cow (511–527), and a very detailed and annotated bibliography (565–599).

Steller, Georg Wilhelm: SEE ALSO Pekarskiy, P.P., 1869; Stejneger, L., 1936.

Steller, Georg Wilhelm

1751. De bestiis marinis.

Novi Comm. Acad. Sci. Petropolitanae, 2: 289–398. Pls. 14–16.

–Allen 257. See also *Mém. Acad. Sci.*, (4)11 (= 25?): 294–330? Engl. transl.: Steller (1899), which is the version fully indexed here. French transl.: F. Cuvier (1836). German transl.: Steller (1753a,b); J.C. Adelung (1768).

This description of the marine mammals of Bering Island, perhaps Steller's greatest work, is justly renowned for its detail and precision, despite having been written by a man shipwrecked on a desert island, without access to a library and under extremely difficult physical conditions. It was, moreover, published posthumously, without benefit of final revisions or corrections by its author, which doubtless accounts for some errors and discrepancies in the text. (For comparison of the printed work with the original manuscript, see P.P. Pekarskiy, 1869.) Nonetheless, it provides a clear and thorough description of four previously unknown large marine mammals: the sea otter (*Enhydra lutris*), the fur seal (*Callorhinus ursinus*), Steller's sea lion (*Eumetopias jubata*), and Steller's sea cow (*Hydrodamalis gigas*). This paper must, therefore, rank high on any list of the truly heroic achievements in natural history. Moreover, as it is by far the most detailed eyewitness account of the sea cow (though not, as sometimes imagined, the only one) and the only one written by a trained naturalist, it will forever remain our chief source of information on the biology of this great animal.

The section on the "Manati," which Steller discovered on Bering Island, comprises the measurements (294–296) and a detailed account of the external (296–309) and internal anatomy (309–318) of a 7.5-meter female killed on Jul. 12, 1742, with a description of the species' osteology (318–320), habits, and natural history (320–330), including parasites (311, 330). Pl. 14 illustrates the rostral masticating plates, which were the only specimens of *Hydrodamalis* that Steller was able to take with him when he left the island. Although he did not propose here any formal name for the sea cow (which would have been pre-Linnaean in any case), this verbal description was the ultimate and sole basis for all subsequent names applied to

the species; no type specimens were ever designated. Likewise this description served as the basis for the names of the parasites *Sirencyamus Rhytinae* J.F. Brandt, 1846 and *Ascaris Rytinae* Diesing, 1851.

Steller, Georg Wilhelm

1753a. *Ausführliche Beschreibung von sonderbaren Meerthieren, mit Erläuterungen und nöthigen Kupfern versehen.*

Halle, Carl Christian Kümmel, [xviii] + 218. 1 pl.

–Allen 263. Consists mainly of a German transl. of Steller (1751) (41–208). The account of the sea cow is on pp. 48–107; it includes many anatomical notes and corrections by an editor (see L. Stejneger, 1936: 593–594).

Steller, Georg Wilhelm

1753b. Beschreibung des Manati, oder der sogenannten Seekuh.

Hamburgisches Magazin, 11(1 [or 2?]): 132–187. 1 pl.

–German transl. of Steller's (1751) account of *Hydrodamalis*.

x Steller, Georg Wilhelm

1774. *Beschreibung von dem Lande Kamtschatka dessen Einwohnern, deren Sitten, Nahmen, Lebensart und verschiedenen Gewohnheiten herausgegeben von J. B. S. [Jean Benoît Schérer]*

Frankfurt & Leipzig, Johann Georg Fleischer, [viii] + 28 + 384 + 72. 10 pls. 2 maps.

–Pp. 97–98: {"Die Seekuh *Manati*, auf russisch *Morskaia Korowa*.... Die Seekühe befinden sich zwar allein um America und in den Inseln in dem Canale, werden aber dennoch zuweilen todt an das kamtschatkische Ufer getrieben, und daselbst ausgeworfen; ihre äuserliche und innerliche Gestalt und Beschaffenheit, ihr Nutzen und Nahrung, Sitte und Art wie sie dieselben fangen, sind hier überflüssig anzuführen, wie auch derer übrigen drey See- [98] thiere, und werde ich nur kürzlich von denen so noch zu beschreiben übrig, handeln."}

The use of the name *Manati* in this passage has been deemed to constitute the uninominal publication of a new generic name, which has been formally suppressed (see R.V. Melville, 1985). The statement that *Hydrodamalis* was found near America and the "islands in the Channel" probably refers merely to the Commander and western Aleutian islands (see Steller, 1925: 73, 82; Domning, 1978b: 135).

Steller, Georg Wilhelm

1781. Topographische und physikalische Beschreibung der Beringsinsel, welche im östlichen Weltmeer an der Küste von Kamtschatka liegt. In: P.S.

Pallas, *Neue nordische Beyträge zur physikalischen und geographischen Erd- und Völkerbeschreibung, Naturgeschichte, und Oekonomie.*

St. Petersburg & Leipzig, Johann Zacharias Logan, Vol. 2: 255–301.

–Engl. transl.: Steller (1925: 189–241).

Steller, Georg Wilhelm

1793a. Tagebuch seiner Seereise aus dem Petripauls Hafen in Kamtschatka bis an die westlichen Küsten von Amerika und seiner Begebenheiten auf der Rückreise. In: P.S. Pallas, *Neue nordische Beyträge zur physikalischen und geographischen Erd- und Völkerbeschreibung, Naturgeschichte, und Oekonomie.*

St. Petersburg & Leipzig, Johann Zacharias Logan, Vol. 5: 129–236; Vol. 6: 1–26.

–See also Steller (1793b). Engl. transl.: Steller (1925: 9–187).

Steller, Georg Wilhelm

1793b. *Reise von Kamtschatka nach Amerika mit dem Commandeur-Capitän Bering. Ein Pendant zu dessen Beschreibung von Kamtschatka.*

St. Petersburg, Johann Zacharias Logan, 1–133.

–Steller's journal, issued in book form from the type in Pallas' *Neue nordische Beyträge*, Vols. 5 & 6 (see Steller, 1793a). For differences in pagination of these two versions, see Steller (1925: 255–256).

x Steller, Georg Wilhelm

1899. The beasts of the sea. In: D.S. Jordan et al., *The fur seals and fur-seal islands of the North Pacific Ocean. Part III. Special papers relating to the fur seal and to the natural history of the Pribilof Islands.*

Washington, Govt. Printing Off. (xii + 629), 179–218.

–Abridged transl. of Steller (1751) by Walter and Jennie Emerson Miller; includes all of the material on *Hydrodamalis* (181–201). For comments, see under Steller (1751).

x Steller, Georg Wilhelm

1925. Bering's voyages: an account of the efforts of the Russians to determine the relation of Asia and America. By F.A. Golder. In two volumes. Volume II: Steller's journal of the sea voyage from Kamchatka to America and return on the second expedition 1741–1742. Translated and in part annotated by Leonhard Stejneger.

Amer. Geogr. Soc. Research Series, No. 2: xi + 290. 30 figs. 2 pls.

–Vol. 1 (1922) is listed here as F.A. Golder (1922). Vol. 2 includes a biographical note on Steller by Golder (1–7); Steller's journal (9–187; transl. from Steller, 1793a); his description of

Bering Island (189–241; transl. from Steller, 1781); his letter to Gmelin about the voyage (242–249); a detailed and annotated bibliography (including manuscript sources) on Steller, on the Commander Islands and adjacent regions, and on Bering's expeditions (251–266); and an index and errata for both volumes (267–291). The transl. of the journal incorporates critical comparisons with the original manuscript.

The material on Steller's sea cow (vii, 139–140, 161, 180, 182, 226–237, 245) briefly summarizes the anatomical and behavioral observations reported in Steller (1751, 1899) and describes the techniques used by Bering's crew to kill sea cows on Bering Island and the use made of their meat and fat. The anatomical material is not indexed here in as great detail as for Steller (1899) (q.v.), as it is largely redundant. A new transl. of Steller's journal was published as *Journal of a voyage with Bering, 1741–1742* (O.W. Frost, ed.), Stanford Univ. Press: vi + 252, 1988.

x D Stenzel, H.B.; & Turner, F.E.

1944. A Miocene invertebrate fauna from Burkeville, Newton County, Texas.

Amer. Jour. Sci., 242(6): 289–308. Jun. 1944.

–P. 289: {"The following fossil remains have been found near Burkeville [in the Late Miocene Fleming Formation]: / Vertebrates: / ?*Desmostylus* Sea cow, teeth"}

These tooth fragments are probably proboscidean; see R.H. Reinhart (1976: 286–287).

D Stenzel, H.B.; Turner, F.E.; & Hesse, C.J.

1944. Brackish and non-marine Miocene in southeastern Texas.

Bull. Amer. Assoc. Petrol. Geol., 28: 977–1011. 7 figs.

–See R.H. Reinhart (1976: 286–287).

Stepanova, L.V.: SEE Sokolov, Chernova et al., 1986.

Stephan, Heinz: SEE Bauchot & Stephan, 1968.

Stephens, Wade H., III

1974. Forgotten mermaids.

Defenders Wildlife News, 49(2): 122–124. 3 figs.

Stephens, William M.

1972. Florida mermaids.

Natl. Parks & Conserv. Mag., 46(3): 28–31. 6 figs. Mar. 1972.

x Sterling, Stefan

1910. Beiträge zur Kenntnis der Musculatur des Schultergürtels und der Vorderextremität bei Zahn- und Bartenwalen.

Jena. Zs. Natw., 46(= n.s. 39): 667–680. 4 figs. Pl. 24.

–Attributes the lack of reduction of the muscles in the sir. forearm to their lesser degree of aquatic

adaptation compared to cetaceans; considers them more similar to pinnipeds in this regard (667–668).

Sterling, Tom

1973. *The Amazon*.

Amsterdam, Time-Life Internatl. (Nederland) B.V. (The World's Wild Places/Time-Life Books), 1–183. Illus.

–Pop. acc. of manatees, with much misinformation (27, 100, 102, 104, 106).

Stermer, Dugald: SEE Haley, D., 1980.

Stevens, C.E.: SEE Hintz et al., 1978.

Stevenson, Charles H.

1904. Utilization of the skins of aquatic animals.

Rept. of the Commissioner, U.S. Comm. Fish & Fisheries, for the year ending Jun. 30, 1902. Part 28.

Washington, Govt. Printing Off., 281–352. Pls. 26–38.

–Manatee and dugong leather, 338–339, pl. 34.

Stewart, A.D.G.: SEE Boyde & Stewart, 1963.

Stewart, Brent S.: SEE Reeves et al., 1992.

x Stewart, Charles

1801. *Elements of natural history; being an introduction to the Systema Naturae of Linnaeus...*

London, T. Cadell Jun. & W. Davies; Edinburgh, Wm. Creech (2 vols.), Vol. 1: iv + 408. 6 pls.

–Places "*Trichechus manatus*" in the same genus with the walrus; recognizes 2 subspecies, "Australis" and "Borealis," corresponding respectively to *Trichechus* and *Hydrodamalis*. It is "said to delight in music" and to bellow like a bull. "The carcass of one of these animals was about sixteen years ago [i.e., 1785] thrown ashore near Leith [on the North Sea coast of Scotland, near Edinburgh on the Firth of Forth]. It was much disfigured; and the Fishermen extracted its liver and other parts, from which a considerable quantity of oil was obtained" (85).

x Stewart, Charles

1817. *Elements of the natural history of the animal kingdom...*

Edinburgh, Bell & Bradfute; London, Longman, Hurst, Rees, Orme, & Brown (2 vols.), Vol. 1: vi + 446. 6 pls.

–"Second Edition"; sir. material almost identical to that in the 1801 ed. Specifies 1785 as the year of the Leith stranding (125).

x Stewart, Darryl

1978. *From the edge of extinction: the fight to save endangered species*.

Toronto, McClelland & Stewart, 1–191. Illus.

–Chap. 13 (113–118) is a pop. acc. of conservation problems of manatees in Florida and else-

where. Mentions the display at Florida Atlantic University of the mounted skin of a manatee that had been used in abortive weed-control experiments in 1964 (see P.L. Sgueros, 1966).

Stewart, Richard

1976. Blue Springs manatees.

Florida Diver, 1(4): 11–13. 3 figs. Feb. 1976.

Stewart, Vi N.

1980. A perceptive irony of the times.

Florida Conservation News (Florida Dept. Nat. Resources), 15(6): 14–15. 1 fig. Mar. 1980.

–See also Appendix 1. Pop. acc. of Steller's sea cow.

Stewart, Vi N.

1982. Manatee—endangered Floridian.

Geojourney (Florida Dept. Nat. Resources), 2(3): 2 unnumbered pages on back of pullout centerfold manatee poster. 1 fig. Summer 1982.

Stewart, Vi N.

1988. Manatees.

Sea-Stats (Florida Dept. Nat. Resources, Marine Research Inst.), No. 13: 1–16. 3 figs. Nov. 1988.

x Stiles, Charles Wardell

1919. [Manatees in North Carolina.] In: Proceedings, 600th meeting, Biological Society of Washington. *Jour. Wash. Acad. Sci.*, 9(21): 657–659. Dec. 19, 1919.

–Listed by title in *Proc. Biol. Soc. Wash.*, 32: xiii, Mar. 11, 1920. P. 658: {"Dr. Stiles also announced that recently two manatees (*Trichechus manatus* Linn.) had appeared in Wrightsville Sound, eight miles from Wilmington, N.C., a northern record for this mammal. One of these manatees had been captured and was now on exhibition in Wilmington."}

x Stiles, Charles Wardell; & Hassall, Albert

1899. Internal parasites of the fur seal. In: D.S. Jordan et al., *The fur seals and fur-seal islands of the North Pacific Ocean. Part III. Special papers relating to the fur seal and to the natural history of the Pribilof Islands*.

Washington, Govt. Printing Off. (xii + 629), 99–177. 100 figs.

–Gives keys, synonymies, diagnoses, and histories of study of *Ascaris halicoris* and *A. ryntinae*, with illustrations of the former (99, 100, 107–108, 147–151, 163–164, 169–171).

x Stirton, Ruben Arthur

1953. Vertebrate paleontology and continental stratigraphy in Colombia.

Bull. Geol. Soc. Amer., 64(6): 603–622. 13 figs. Jun. 1953.

–Lists *Potamosiren magdalenensis* with the rest of the Late Miocene La Venta fauna (614);

discusses the fauna and gives locality maps.

Stivens, D.; & Černý, K.

1976. [Will "sea cows" become extinct?]

Živa, 24(4): 151–154. Illus.

–In Czech.

D Stock, Chester

1924. Mammalian forms occurring in association with marine invertebrates in western North America. *Proc. Pan-Pacif. Sci. Congr.* (Australia, 1923), 1: 880–881.

x Stoddart, D.R.

1972. Pinnipeds or sirenians at western Indian Ocean islands?

Jour. Zool. (London), 167(2): 207–217. 1 fig.

–Summarizes early travel accounts relating to dugongs in the Mascarenes and perhaps the Chagos Archipelago, and supposed dugongs (probably seals) in the Seychelles. The dugongs seem to have become extinct in these areas by about 1800.

x Stoll, Otto

1883. Esquisse de la faune du Guatemala.

Bibliothèque Universelle, Arch. Sci. Phys. Nat. (Geneva), (3)10: 343–346. Oct. 1883.

–P. 346: {"Enfin nous retrouvons sur ce littoral [Atlantic] une lacune, celle de Izabal dans laquelle vit un Sirénien, le *Manatus australis*."}

Stone, Renee: SEE Delaney et al., 1985.

x Stone, Witmer; & Cram, William Everrett

1916. *American animals; a popular guide to the mammals of North America north of Mexico, with intimate biographies of the more familiar species.* Garden City (New York), Doubleday, Page & Co. (The New Nature Library, Vol. 3), 1–318. Pls.

–First ed., 1902. Gen. acc. of the Florida manatee (26–27), with a color painting of an underwater scene with two rather oddly-shaped manatees.

Storr, Gottlieb Konrad Christian

1780. *Prodromus methodi mammalium.*

Tübingen, Litteris Reissianis: 1–43. 4 tabs.

–Mentions *Manatus*, 41, tab. C.

Stoskopf, Michael K.: SEE ALSO Williams et al., 1990.

Stoskopf, Michael K.

1990. Marine mammal pharmacology. In: L.A. Dierauf (ed.), *CRC handbook of marine mammal medicine: health, disease, rehabilitation.*

Boca Raton (Florida), CRC Press, Inc. (735 pp.), 139–161. 5 tabs.

–Table 4 (153–155) is a compilation of drug doses and administration frequencies and routes recommended for *T. manatus* and *D. dugon*.

Stossich, M.

1896. Il genere *Ascaris* Linné. Lavoro monographico.

Boll. Soc. Adriatica Sci. Nat. (Trieste), 17: 9–120.

–Includes *A. halicoris* and *A. Rhytinae* (68).

Strachey, William

1625. A true reportory of the wracke. In: S. Purchas, ... *Purchas his pilgrimes ...* (q.v.).

London, Henry Fetherston, 19: [pp.?]]

–Manuscript written in 1610. Sir. material repr. in J.A. Murray (ed.), *The islands and the sea ...*, Oxford Univ. Press, 1991, p. 95: {"[The meat of the sea turtle is] like the Manati at Saint Dominique, which made the Spanish Friars (at their first arrivall) make some scruple to eate them on a Friday, because in Colour and taste the flesh is like to morsells of Veale."}

x Stradelli, Ermanno

1929. Vocabularios da lingua geral portuguez-nheêngatú e nheêngatú-portuguez, precedidos de um esboço de grammatica nheênga-umbuê-sáua mirí e seguidos de contos em lingua geral nheêngatú poranduna.

Rev. Inst. Hist. Geogr. Brasil., 158(104): 5–768.

–Gives the word for manatee in lingua geral as *lauarauá* (285).

Strauss

1837. Considérations sur le genre de vie du *Dinotherium* et sur la place qu'il convient de lui assigner dans une distribution naturelle des mammifères.

C.R. Acad. Sci. Paris, 4(14): 529–532. Apr. 3, 1837.

x Strauss, Michael B.

1969. Mammalian adaptations to diving.

Report U.S. Naval Submarine Medical Center (Groton, Conn.), No. 562: v + 31. 5 tabs. 3 charts. Jan. 28, 1969.

–A summary of the subject, mentioning manatees (2, 5, 10).

x Strauss-Durckheim

1861. Rectification d'une nouvelle.

Cosmos, Revue Encycl. Hebd. Prog. Sci., etc. (Paris), 19: 513–514. Nov. 8, 1861.

–Comments on a report (in the Oct. 18 issue of *Cosmos*) of an animal captured in Hudson's Bay, supposedly having "eight feet" but allied to the manatee; suggests that it was instead eight feet in length, and possibly *Rytina* (of which he thought only one individual had ever been found, and that in the area of Bering Strait) or a near relative. He was taken to task for these remarks by J.F. Brandt (1863c: 563).

D Strelkov, S.A.

1970. K istorii peremeshchenia beregovoï linii Arkticheskogo basseïna v kaïnozoe. [On the history of shifting of the shoreline of the Arctic basin during the Cenozoic.] In: *Severnyï ledovityï okean i ego*

- poberezhe v kainozoe: 222-227.*
 –In Russian.
- Stretton, W.G.
 1893. Customs, rites and superstitions of the Aboriginal tribes of the Gulf of Carpentaria.
Trans. Roy. Soc. South Australia, 17: 227–253.
 –Mentions the fabrication of rope for dugong fishing (249).
- Stromer von Reichenbach, Ernst
 1902. Über die Bedeutung des Foramen entepicondyloideum und des Trochanter tertius der Säugethiere.
Morph. Jahrb., 29: 553–562. 2 figs.
 –Abstr.: *Geol. Zentralbl.*, 6: 53? *Sirs.*, 555.
- Stromer von Reichenbach, Ernst
 1911. Neue Forschungen über fossile lungenatmende Meeresbewohner.
Fortschr. Natw. Forsch. (Berlin), 2: 83–114. 13 figs. 3 pls.
- Stromer von Reichenbach, Ernst
 1912. *Lehrbuch der Paläozoologie. II. Theil: Wirbelthiere.*
 Leipzig & Berlin, B.G. Teubner, vii + 325. 2 tabs. 234 figs.
 –Abstrs.: *Zs. Morph. Anthrop.*, 17: 449?; *Geol. Zentralbl.*, 18: 516–518?; *Geol. Mag.*, (5)10: 37? *Rev.: Nature* (London), 93: 265? *Sirs.*, 220, 246.
- Stromer von Reichenbach, Ernst
 1921a. Untersuchungen der Hüftbeine und Hüftgelenke von Sirenia und Archaeoceti.
Sitzb. Bayer. Akad. Wiss., 1921: 41–59. 6 figs. [pp. 331–340?]
 –Abstr.: *Geol. Zentralbl.*, 26: 314?
- Stromer von Reichenbach, Ernst
 1921b. Die Rückbildung der Hüftbeine bei Seekühen.
Natw. Wochenschr., 20: 411–413. 11 figs. [vol. 36?]
- Stromer von Reichenbach, Ernst
 1923. Discussion on pachyostosis.
Pal. Zs., 5: 258–261 [+?].
- D Stromer von Reichenbach, Ernst
 1924. Beobachtungen über die Schmelzstruktur der Säugethiere, besonders der Hyracoidea und Multituberculata.
Pal. Zs., 6: 248–256. 5 figs.
 –Abstr.: *Geol. Zentralbl.*, 31: 317? *Desmostylians*, 254.
- Strong, William D.
 1935. Archaeological investigations in the Bay Islands, Spanish Honduras.
Smithsonian Misc. Coll., 92(14): 1–176.
 –Manatee heads depicted on pottery.
- Stroud, Richard H.
 1964. Florida manatees.
SFI Bull., 155: 8.
- x Stuart, H. Villiers
 1891. *Adventures amidst the equatorial forests and rivers of South America; also in the West Indies and the wilds of Florida. To which is added "Jamaica Revisited."*
 London, John Murray, xxi + 268.
 –P. 137: {"After leaving Jupiter Inlet [Florida] we sailed some miles up St. Lucie River and saw a manatee and her calf feeding among the water weeds.
 "We were informed that the hunters forward the flesh of this creature in refrigerator trucks to New York, where it is sold as prime beef; the carcass often weighs 1000 pounds."}
- x Stubbings, H.G.
 1965. West african [sic] Cirripedia in the collections of the Institut Français d'Afrique Noire, Dakar, Senegal.
Bull. Inst. Franç. Afr. Noire, Sér. A, 27(3): 876–907. 8 figs.
 –Reports the barnacles *Balanus trigonus*, *Chelonibia patula*, *C. manati*, and *Platylepas hexastylus* collected from *T. senegalensis* near Dakar (876, 891, 893–902).
- Studenetskaya, I.S.: SEE ALSO Arseniev et al., 1973.
 Studenetskaya, I.S.
 1984. [The state of studies on marine mammals off the north-western coast of Africa.] In: A.V. Yablokov (ed.), [Marine mammals.] Moscow, "Nauka" (Akad. Nauk SSSR) (312 pp.), 117–129. Illus.
 –In Russian.
- Studer, Theophil
 1887. Über den Steinkern des Gehirnraumes einer Sirenoide aus dem Muschelsandstein von Würenlos (Kanton Aargau), nebst Bemerkungen über die Gattung *Halianassa* H. von Meyer und die Bildung des Muschelsandsteins.
Abh. Schweiz. Pal. Ges. (Zurich), 14(3): 1–20. 2 pls.
 –Abstrs.: *Verh. Schweiz. Ges. Natw.*, 70: 49?; *C.R. Soc. Helvét. Sci. Nat.*, 70: 22–23?; *Arch. Sci. Phys. Nat.*, (13)18: 357–358? This paper provided the first illustration and adequate description of the maxilla and upper dentition on which the name *Manatus Studeri* von Meyer, 1837, had been based. Also described here for the first time is a braincase and cranial endocast, likewise from Miocene deposits in Switzerland.
- Studer, Theophil
 1899. Über fossile Knochen vom Wadi-Natrùn, Unteregypten.
Mitt. Naturf. Ges. Bern, 1898: 72–77.

- x Stunkard, Horace W.
1929. The parasitic worms collected by the American Museum of Natural History Expedition to the Belgian Congo, 1909–1914. I. Trematoda. *Bull. Amer. Mus. Nat. Hist.*, 58(6): 233–289. 37 figs.
–Gives the history of study of the genus *Chiorchis*, and describes specimens of *C. fabaceus* from a *T. senegalensis* taken at Banana, Belgian Congo (254–258, 282–283, figs. 21–26). Concerning this manatee, see also R.T. Hatt (1934).
- Sugiyama, Masahiro: SEE Abe et al., 1982.
- Sukhanov, V.B.: SEE ALSO Gambaryan & Sukhanov, 1986.
- Sukhanov, V.B.
1986a. [General characteristics and evolution of Sirenia (Mammalia) and the place of manatees in the system.] In: V.E. Sokolov (ed.), *Lamantin: morfologicheskie adaptatsii* (q.v.). Moscow, "Nauka" (Akad. Nauk SSSR) (405 pp.), 11–43. Figs. 2–5.
–In Russian.
- Sukhanov, V.B.
1986b. [Specifics of adaptations in Sirenia (by way of conclusion).] In: V.E. Sokolov (ed.), *Lamantin: morfologicheskie adaptatsii* (q.v.). Moscow, "Nauka" (Akad. Nauk SSSR) (405 pp.), 385–393.
–In Russian.
- Sukhanov, V.B.; Gambaryan, P.P.; & Klykov, V.I.
1986. [Specifics of the forelimb skeleton of the manatee.] In: V.E. Sokolov (ed.), *Lamantin: morfologicheskie adaptatsii* (q.v.). Moscow, "Nauka" (Akad. Nauk SSSR) (405 pp.), 157–187. Figs. 50–67.
–In Russian.
- Sukhanov, V.B.; & Manzij, S.F.
1986. [Morphology and basic directions of specialization of the axial skeleton of Sirenia.] In: V.E. Sokolov (ed.), *Lamantin: morfologicheskie adaptatsii* (q.v.). Moscow, "Nauka" (Akad. Nauk SSSR) (405 pp.), 77–156. Tab. 3. Figs. 19–49.
–In Russian.
- Šuklje, Fran
1938. Mediteranska sirena iz vrapča kod Zagreba i otruševca kod Samobora. [Sirenian fossils in Yugoslavia.] *Glasnik Hrvatskoga Prirodoslovnoga Društva Zagreb*, 49–50: 87–93. 3 figs.
–In Croatian; German summ.
- x Sumichrast, François
1882. Enumeracion de las especies de mamíferos, aves, reptiles y batracios observados en la parte central y meridional de la Republica Mexicana. *La Naturaleza* (México), 5: 199–213 [+ later installments].
–Notes the occurrence of manatees in rivers on the Mexican coast of the Gulf of Mexico, and mentions their continued hunting in the area of Minatitlan (213).
- Sumitro, Dr.: SEE Allen et al., 1976; Hendrokusumo et al., 1981; Tas'an et al., 1979.
- Summers, Robert C.: SEE Packard et al., 1983, 1985.
- Sun, Jianyun: SEE Wang & Sun, 1986.
- Sunseri, Sev M.
1980a. Lee County youngsters among first to notice plight of the manatee. *Florida Conserv. News* (Florida Dept. Nat. Resources), 15(6): 8–9. 5 figs. Mar. 1980.
–See also Appendix 1.
- Sunseri, Sev M.
1980b. Salvage crew keeps nose to the grind. *Florida Conserv. News* (Florida Dept. Nat. Resources), 15(6): 18–19. 5 figs. + fig. on p. 3. Mar. 1980.
–See also Appendix 1.
- x Sunter, G.H.
1936. The dugong. *Walkabout*, 2: 47–48. 1 fig. Mar. 1, 1936.
–Pop. acc. of harpooning a dugong in the Northern Territory of Australia.
- x Sunter, G.H.
1937. *Adventures of a trepang fisher*. London, Hurst & Blackett Ltd., 1–288.
–Accounts of two dugong-harpooning expeditions in the Northern Territory of Australia, and a report of a bull dugong killing a crocodile by repeatedly jumping out of the water and landing on top of it (53–61).
- Supin, A. Ya.: SEE Klishin et al., 1990; Popov & Supin, 1990.
- Suraru, Nicolae; & Codrea, Vlad A.
1988. [Ein Sireniden Prämolare (P/4 dext.) im Horizont der Grobkalke bei Cluj-Napoca: Baciú Schluchten.] *Nymphaea* [= *Crisia*], 18: 689–695. 2 pls.
–In Rumanian; French summ.
- xD Susuki, Takeo; & Stadum, Carol J.
1978. A Neogene section, northeastern San Clemente Island, California. *Nat. Hist. Mus. Los Angeles County Contr. Sci.*, No. 299: 1–24. 29 figs. Jun. 16, 1978.
–Reports a large desmostylian tooth (*Paleoparadoxia tabatai*?) from Miocene sandstone on San Clemente Island (5, 21).
- D Suzuki, Keiji; et al.
1986a. New skeleton of *Paleoparadoxia* with stratigra-

phical and sedimentary environmental remarks in Yanagawa-town, Date-gun, Fukushima Prefecture, Japan. In: *Essay in Geology (Prof. N. Kitamura Commemorative Volume)*: 453-464. -In Japanese; Engl. summ.

- D Suzuki, Keiji; et al.
1986b. *Investigated report on Paleoparadoxia of the Yanagawa Formation.*
Yanagawa (Japan), Yanagawa Town Educational Committee, 1-22. 7 pls.
-In Japanese.
- D Suzuki, Keiji; & Wako, Ryo
1987. Stratigraphy and structure of the Late Tertiary in the area of the north margin of the Fukushima Basin.
Sci. Rept. Fac. Educ. Fukushima Univ., 40: 33-48. Illus. Nov. 1987.
-In Japanese; Engl. summ. Mentions *Paleoparadoxia*.
- D Suzuki, Koichi
1952. [The desmostylids-bearing formation discussed from the standpoint of stratigraphic classification.]
Jour. Geol. Soc. Japan, 58(686): 550-551.
-In Japanese.
- x Sverdrup, Harald Ulrik
1930. Plavanie na sudne "Mod" v vodakh morei Laptevskikh i Vostochno-Sibirskogo. [Voyage of the ship "Maud" to the waters of the Laptev Sea and eastern Siberia.]
Akad. Nauk SSSR, Komissia po Izucheniu Iaku'skoi ASSR, Materialy, No. 30: lviii + 440. 17 figs. 31 pls. 4 portraits. 11 maps.
-In Russian. The sir. material (p. 248) may be translated as follows: {"In connection with this it is worth mentioning that one Russian told us about a specimen of the sea cow (*Rhitina*), extinct by now since about the 1770s or, at the latest, the 1850s; this sea cow specimen was brought by the current to Cape Chaplin 8-10 years ago [i.e., during the period 1910-1917]."} This hearsay report is uncorroborated.
- x Swanton, John R.
1922. Early history of the Creek Indians and their neighbors.
Bull. Bur. Amer. Ethnol., 73: 1-492.
-Quotes manuscripts of Lopez de Velasco to the effect that the Tekesta Indians of southeast Florida hunted manatees by jumping on their backs and driving stakes into their nostrils. They then took two bones from the manatee's head and placed these in the coffins of their dead (389).
- x Swanton, John R.
1946. The Indians of the southeastern United States.
Bull. Bur. Amer. Ethnol., 137: xiii + 943. 107 pls.
-Again quotes Velasco to the effect that the southeast Florida Indians killed manatees by driving stakes into their nostrils (329); suggests there was confusion with manatees in accounts describing similar methods of hunting cetaceans (297-298, 329). Swanton interprets the "two large bones" from the manatee's head that were placed in graves as "tusks" (250, 282); doubtless they were really the periotic bones.
- Swayne, S.H.
1872. Travaux récents sur les sirénides vivants et fossiles (analyse des publications de MM. Van Beneden, E. Lartet, Delfortrie, Capellini etc.).
Jour. Zool., 1: 332-353. 4 figs. 2 pls.
- Sweeney, J.C.: SEE Geraci & Sweeney, 1978.
- Sweeney, James B.
1972. *A pictorial history of sea monsters and other dangerous marine life.*
New York, Crown Publs., Inc., 1-314.
- Swinton, G.
1831. Letters accompanying a dugong (*Halicore dugong*, Ill.), presented by G. Swinton.
Proc. Comm. Sci. & Corres., Zool. Soc. London, 1(10): 113. Oct. 25, 1831.
- Switzer, R.C.: SEE Reep et al., 1989.
- Syllacio, Nicolò
1494? *Ad sapientissimum Ludovicum Mariam Sforzam* Pavia: 1-20.
-Facsimile: Florence, 1900. Engl. transl.: S.E. Morison (1963: 229-245; q.v.). A letter to the Duke of Milan, dated Dec. 13, 1494, and publ. in 1494 or 1495, which gives a partial account of Christopher Columbus's second voyage to the New World. Only four copies exist. According to Morison, this is "the earliest imprint on the New World after Columbus's own Letter." This is also the earliest reference cited in this bibliography.
- Sylvestre, Jean-Pierre
1983. La fascinante histoire de la rhytine de Steller.
Amazonie [?], No. 2: 4-8. 4 figs. Jan. 1983.
- x Sylvestre, Jean-Pierre; & Barloy, Jean-Jacques
1982. Le glouton d'Amérique.
Oceans, No. 112: 62-63. 1 fig. Sep. 1982.
-Gen. acc. of the distribution, economic use, and biology of *T. m. manatus*.
- Symeonidis, N.; & Schultz, Ortwin
1973. Bemerkungen zur neogenen Fischfauna Kretas und Beschreibung zweier Fundstellen mit miozänen Mollusken, Echiniiden, etc., Insel Kreta, Griechenland.
Ann. Naturhist. Mus. Wien, 77: 141-147. Dec. 1973.

Szabo, B.J.: SEE ALSO Gard & Szabo, 1971.

x Szabo, B.J.; & Gard, L.M., Jr.

1975. Age of the South Bight II marine transgression at Amchitka Island, Aleutians.

Geology, 3(8): 457-459. 2 tabs. 2 figs. Aug. 1975.
-Uranium-series dates on the *Hydrodamalis gigas*-bearing deposit gave an average age of $127,000 \pm 8,000$ years.

T

- x Tabuchi, Kiyoshi; Muku, Tatsunori; Satomichi, Tokuko; Hara, Motonobu; Imai, Nobumi; & Iwamoto, Yasunori
1974. A dermatosis in manatee (*Trichechus manatus*): mycological report of a case. *Bull. Azabu Veter. Coll.*, No. 28: 127-134. 1 tab. 4 figs. Read Sep. 19-20, 1970.
-Abstr.: *Jap. Jour. Veter. Sci.*, 32: 182, 1970. Reports the isolation of *Cephalosporium* sp. and *Mucor* sp. from the skin of two female and two male manatees in a Tokyo aquarium in 1969.
- Tachard, Gui
1686. *Voyage de Siam, des Pères Jesuites, envoyez par le Roy aux Indes & à la Chine. Avec leurs observations astronomiques, et leurs remarques de physique, de géographie, d'hydrographie, & d'histoire.*
Paris, A. Seneuze & D. Horthemels: 1-424. Illus.
-Various later eds. & transls.
- D Tagami, Masatosi
1936. A new locality of *Desmostylus*. *Jour. Geol. Soc. Japan*, 43(508): 47-48. 2 figs. Jan. 20, 1936.
-In Japanese.
- Tagle, D.A.: SEE Czelusniak et al., 1990.
- D Taguchi, Eiji
1984. Paleoenvironmental conditions at the locality of *Paleoparadoxia* and in its environs in Tsuyama City, Okayama Prefecture. *Monogr. Assoc. Geol. Collab. in Japan*, 28: 81-89. 1 tab. 3 figs. May 1984.
-In Japanese; Engl. summ. See also T. Kamei (1984).
- Takahashi, Keiichi: SEE Horikawa et al., 1987; Kobayashi et al., 1988.
- Takahashi, Shizuo
1981. [Excavation of fossil sea cow.] *Yamagata Applied Geol. Assoc. Publ.*, No. 1: 1-5. 7 figs. Mar. 1981.
-In Japanese.
- x Takahashi, Shizuo; Domning, Daryl Paul; & Saito, Tsunemasa
1979. [On the discovery of a fossil sea cow from Ohe town, Yamagata Prefecture.] [Abstr.] *Abstrs. 86th Ann. Meeting, Geol. Soc. Japan* (Akita, Japan): 228.
-In Japanese. Reports a skeleton of *Dusisiren* n.sp. from the Late Miocene Hashigami Sandstone Member of the Hongo Formation, Ohe, Yamagata Prefecture, Japan. See also Takahashi et al. (1986).
- xD Takahashi, Shizuo; Domning, Daryl Paul; & Saito, Tsunemasa
1986. *Dusisiren dewana*, n. sp. (Mammalia: Sirenia), a new ancestor of Steller's sea cow from the Upper Miocene of Yamagata Prefecture, northeastern Japan. *Trans. Proc. Pal. Soc. Japan* (n.s.), No. 141: 296-321. 12 tabs. 15 figs. Pls. 53-62. Apr. 30, 1986.
-Japanese summ. Abstrs.: Takahashi et al. (1979); *East Asian Tertiary/Quaternary Newsletter*, No. 9: 44, 1989. Describes the skull and skeleton of *Dusisiren dewana* and compares it with *D. jordani*, *Hydrodamalis cuestae*, and *H. gigas*. It is considered phyletically intermediate between the former two and is 9.0-10.4 Ma old. (See Takahashi et al., 1983 for more details on the discovery of this specimen, the geology of the locality, and associated fossils.) Also summarizes other fossil sir. occurrences in Japan, and suggests that the tooth of "*Dugong*" reported by Inuzuka et al. (1980) may instead represent *Paleoparadoxia* (317).
- x Takahashi, Shizuo; Tamiya, Ryoichi; Uyeno, Teruya; Ogasawara, Kenshiro; Akiba, Fumio; & Saito, Tsunemasa
1983. [Report on the excavation of the great Yamagata sea cow.] *Yamagata Pref. Mus. Spec. Publ.* (Yamagata, Japan): 1-76. 6 tabs. 22 figs. 16 pls. Mar. 31, 1983.
-In Japanese. Describes the history of discovery of the specimen (subsequently named *Dusisiren dewana*), with photos of the major skeletal elements (Takahashi, 2-39); the geology of the locality (Tamiya, 41-54); fossil sharks (Uyeno, 55-59); molluscs (Ogasawara, 61-63); diatoms (Akiba, 65-69); and sedimentary structures (Saito, 71-75).
- Takahashi, T.: SEE Onodera et al., 1967.
- Takai, Fuyuji: SEE ALSO *Desmostylus* Research Committee; Hanzawa et al., 1961; Yabe et al., 1952.
- D Takai, Fuyuji
1938. Cainozoic mammals in Japan (preliminary notes).

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- D Takai, Fuyuji
1939a. The mammalian faunas of the Hiramakian and Togarian stages in the Japanese Miocene. In: *Jubilee publication commemorating Prof. H. Yabe, M.I.A. sixtieth birthday*. Sendai (Japan), Tohoku Imper. Univ., Inst. Geol. Pal., Vol. 1: 189–203. 1 fig.
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1939b. On some Cenozoic mammals from Japan, Part I. *Jour. Geol. Soc. Japan*, 46: 481–489.
–In Japanese; Engl. summ. Abstrs.: *Jap. Jour. Geol. Geogr.*, 17: 45–46; *Pal. Zentralbl.*, 16: 36–37.
- D Takai, Fuyuji
1944. *Desmostylus* from phosphorus ore bed in Noto Peninsula. *Misc. Rept. Res. Inst. Nat. Resources (Sigenkagaku Kenkyusyo Iho)*, 5: 59–62. 1 fig. Pl. 5.
–In Japanese.
- D Takai, Fuyuji; Shikama, Tokio; & Ijiri, Shoji
1952. Re-excavation of *Desmostylus* and its horizon in Doki district, Gifu Prefecture. *Jour. Geol. Soc. Japan*, 58(679): 144.
Takaizumi, Yukihiro: SEE Kohno & Takaizumi, 1992.
Takaku, Kouichi: SEE Kimura & Takaku, 1979.
- D Takashi, Yoichi
1971. [*Phantom monsters—the story of the discovery of Desmostylus.*] Tokyo, Kaiseisya Publ. Co. (World Nonfiction for Boys & Girls No. 27), [6] + 221 + 3. Illus.
–In Japanese.
Takayanagi, Yokichi: SEE Ikebe et al., 1972.
Takayasu, Katsumi: SEE ALSO Inuzuka et al., 1985; Okubo et al., 1980.
- D Takayasu, Katsumi; & Nakamura, Takeshi
1984. *Desmostylia* bearing beds in the southern border of Lake Shinji, West Japan, and their paleoenvironments from the viewpoint of molluscan fossils. *Monogr. Assoc. Geol. Collab. in Japan*, 28: 91–99. 1 tab. 2 figs. May 1984.
–In Japanese; Engl. summ. See also T. Kamei (1984).
Takemura, Akira: SEE Sonoda & Takemura, 1973.
- D Takeyama, Kenichi; & Azuma, Yoichi
1987. [Marine mammal fossils from Fukui Prefecture, Miocene.] In: Y. Hasegawa (ed.), [*Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals.*] Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 21–24. 2 tabs. 1 fig. 1 pl. Mar. 1987.
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- D Takeyama, Kenichi; & Azuma, Yoichi
1988. [Present status of marine mammal fossils from Fukui Prefecture.] In: Y. Hasegawa (ed.), [*Study on fossil marine mammals from Japan. (Subject of study) Studies on biostratigraphy and paleontology of Cenozoic marine mammals.*] Japan, Ministry of Education, Aid for Scientific Study, Synthetic Study A, Subject No. 61304010, 29–34. 1 tab. 3 figs. Mar. 1988.
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- Takikawa Sea Cow Geological Investigation Group
1984. [*Written report on an investigative study of the Takikawa sea cow.*] Takikawa City (Japan), Municipal Board of Education, [8] + 206. Illus. Mar. 1984?
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- Tamayo, F.
1961. Mamíferos de los Llanos de Venezuela. *El Farol*, 23(196): 12–19.
- Tamiya, Ryoichi: SEE Takahashi et al., 1983.
- Tan, K.: SEE ALSO Kutsuzawa & Tan, 1954.
- D Tan, K.; & Shikama, Tokio
1965. On *Desmostylus* teeth from Tashiro, Akita Prefecture. *Sci. Rept. Yokohama Natl. Univ.*, (2)12: 49–55. 2 pls.
- Tanaka, Hiroyuki: SEE Hasegawa & Tanaka, 1987.
- D Tanaka, K.; & Seki, M.
1962. A *Desmostylus*-like marine mammal found from Toyoshina-cho. *Shinano Kyoiku*, No. 912: 55–65. 5 tabs. 7 figs.
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- Tangley, Laura
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- Tanito, Shigeru: SEE Inuzuka et al., 1985.
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- x Tiedemann, Friedrich
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- x Tiedemann, John A.
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–Allen 874. Sirs., 709–719. Allen says: "Of the many pieces of bad cetological composition there are few more worthless, viewed from the standpoint of to-day, than this pretentious compilation of some fifty closely printed pages of Oken's *Isis*..."
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- Tindale, Norman B.
1925. Natives of Groote Eylandt and of the west coast of the Gulf of Carpentaria. *Recs. So. Austral. Mus.*, 3: 61–102. Figs. 23–41. Pls. 6–11.
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- x Tinley, K.L.; Rosinha, A.J.; Lobão Tello, José L.P.; & Dutton, T.P.
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- x Tisdell, Clement Allan
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- x Tisdell, Clement Allan
1986. Conflicts about living marine resources in South-east Asian and Australian waters: turtles and dugong as cases. *Marine Resource Economics*, 3(1): 89–109. 1 fig.
–Discusses problems of dugong conservation in Australia and Papua New Guinea (102–104).
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- Tobien, Heinz: SEE ALSO Bahlo & Tobien, 1982.
- Tobien, Heinz
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- Mastodonten (Proboscidea, Mammalia).
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 141–162. 1 tab. 10 figs. May 1971.
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- x Tobien, Heinz
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 –Summarizes the localities and horizons in the Mainz Basin, Germany, at which *Halitherium schinzii* occurs (207–209).
- Toccheton, Armando J.: SEE Carvalho & Toccheton, 1969.
- Todd, Ethel I.: SEE Rice & Scheffer, 1968.
- Todd, T. Wingate; & Todd, Arthur W.
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Amer. Jour. Anat., 63(1): 1–36. 4 tabs. 23 figs. Jul. 1938.
- Tokunaga, Shigeyasu: SEE ALSO Yoshiwara, Shigeyasu
- D Tokunaga, Shigeyasu (= Yoshiwara, Shigeyasu)
 1915. Systematic position of *Desmostylus*.
Jour. Geol. Soc. Tokyo, 22(258): 119–124.
- D Tokunaga, Shigeyasu (= Yoshiwara, Shigeyasu)
 1936. *Desmostylus* found near the town of Yumoto, Fukushima Prefecture.
Jour. Geogr. (Tokyo), 48(572): 473–484. 1 fig. Pls. 6–8. Oct. 1936.
 –In Japanese; Engl. summ.
- D Tokunaga, Shigeyasu (= Yoshiwara, Shigeyasu)
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- D Tokunaga, Shigeyasu (= Yoshiwara, Shigeyasu); & Iwasaki, C.
 1914. Notes on *Desmostylus japonicus*.
Jour. Geol. Soc. Tokyo, 21(250): 33. Jul. 20, 1914.
 –Coins the name *Desmostylus japonicus*, n.sp.
- x Toldt, C.
 1905. Der Winkelfortsatz des Unterkiefers beim Menschen und bei den Säugetieren und die Beziehungen der Kaumuskeln zu demselben. (II. Teil.)
Sitzb. Akad. Wiss. Wien, Math.-natw. Kl., 114(3): 315–476. 18 figs. 3 pls. Presented Mar. 9, 1905.
 –Comments briefly on the medially inflected angular process of the mandible in *Rhytina* and *Halicore* (337).
- x Toledo, Peter Mann de
 1989. Sobre novos achados de sirênios (*Sirenotherium pirabense* Paula Couto, 1967) na Formação Pirabas (Pará, Brasil).
Bol. Museu Paraense Emílio Goeldi, Sér. Ciênc. da Terra, 1(1): 5–10. 2 figs. Jul. 1989.
 –Engl. summ. describes new material from the “Oligo-Miocene” (actually Early Miocene) of Brazil, including the first complete fossil sir. skull found in South America. These specimens were here referred to *Sirenotherium pirabense*, which was in turn referred to the Dugongidae; however, they were later redescribed as *Dioplotherium cf. allisoni* by Toledo & Domning (1991).
- x Toledo, Peter Mann de; & Domning, Daryl Paul
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- Toots, Heinrich: SEE Parker & Toots, 1980.
- Torre, Danilo: SEE Azzaroli et al., 1982.
- Torres Fundora, Orlando: SEE Ortiz et al., 1992.
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 -An interesting collection of general information on American manatees (114-128) and Steller's sea cow (128-136); quotes extensively from earlier authors and thereby provides a handy literature review. Erroneously states that the manatee stranded in the British Isles in 1785 was in "Shetland" rather than Scotland (116). Includes a partial transl. of Steller (1751) by A. Charles True (130-134), and a report by Lucien Turner "that an aged Aleut woman stated that Rhytina had been seen at Attu by her father" (136).
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1982. *The West Indian manatee in Florida.* [Ed. 2.]
Miami, Florida Power & Light Co., 1–29. 10 figs.
–A revised ed. of Van Meter (1977). First printing, 30,000; second, 40,000 (Jun. 1984); third, 20,000 (Dec. 1985); fourth, 20,000 (1986). Ed. 3: Van Meter (1987).
- Van Meter, Victoria Brook
1987. *The West Indian manatee in Florida.* [Ed. 3.]
Miami, Florida Power & Light Co., 1–41. 13 figs. Nov. 1987.
–A revised and expanded version of Van Meter (1982). First printing, 50,000; second printing, 50,000 (1988); third printing, 37,500 (1990); fourth printing, 20,000 (1991); fifth printing, 40,000 (1992).
- Van Oort, Edward Daniël
1902. Ueber einen Sirenenwirbel aus dem Serro Colorado auf Aruba.
Samml. Geol. Mus. Leyden (Beitr. Geol. Nederl.-West-Indien?), (2)2: 164–168. 1 fig.
–Reports vertebra and ribs of “*Manatus*” of unknown age. See also J.H. Westermann (1932).
- Van Oort, Edward Daniël
1903. Ein Beitrag zur Kenntniss von *Halitherium* (Lendengegend, Becken und Zungenbeinkörper).
Samml. Geol. Reichsmus. Leyden, (3)2(3): 95–105. 1 fig. 1 pl.
–Abstr.: *Jahresber. Anat. Entwickl.* (n.s.), 9(3): 191?
- Van Oort, Edward Daniël
1905. Notiz über *Halitherium*.
Centralbl. Min. Geol. Pal., 1905: 21–22.
- Van Reyk, Peter
1967. Slaughter in the sun.
Loris, 11(2): 86–87.
–On the cruelty of butchering dugongs in the markets of Ceylon.
- D VanderHoof, Vertress Lawrence
1935. Nature and distribution of *Desmostylus*, a marine Tertiary mammal. [Abstr.]
Pan-Amer. Geol., 64(1): 80. Aug. 1935.
–?Repr.: *Proc. Geol. Soc. Amer.*, 1935: 420, Jun. 1936.
- D VanderHoof, Vertress Lawrence
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1941a. Miocene sea-cow from Santa Cruz, California, and its bearing on intercontinental correlation. [Abstr.]
Bull. Geol. Soc. Amer., 52(12): 1984–1985. Dec. 1, 1941.
–Reports a skeleton tentatively identified as *Metaxytherium petersi* and believed to be ancestral to *Hydrodamalis*. This specimen was referred to *Dusisiren jordani* by Domning (1978b).
- xD VanderHoof, Vertress Lawrence
1941b. Oligocene sea-cow remains from east coast of Baja California. [Abstr.]
Bull. Geol. Soc. Amer., 52(12): 1985. Dec. 1, 1941.
–Reports *Cornwallius* teeth from Baja California and uses them to correlate their source beds with the Sooke Formation of Vancouver Island.
- xD VanderHoof, Vertress Lawrence
1942a. An occurrence of the Tertiary marine mammal *Cornwallius* in Lower California.
Amer. Jour. Sci., 240(4): 298–301. 3 figs. Apr. 1942.
–Describes teeth of *C. sookensis* and correlates their horizon with the occurrence of the same species on Vancouver Island.
- D VanderHoof, Vertress Lawrence
1942b. Bearing of sea-cows on age of Vaqueros. Pp. 40–42 In: H.G. Schenck & T.S. Childs, Jr., Significance of *Lepidocyclus*
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- Varola, A.: SEE Borgia et al., 1981.
- x Varona, Luis S.
1972. Un dugongido del Mioceno de Cuba (Mammalia: Sirenia).
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–Engl. summ. Describes *Metaxytherium riveroi*, n.sp., on the basis of an immature partial skeleton from the Middle Miocene of Cuba.

- Varona, Luis S.
1973. *Catálogo de los mamíferos vivientes y extinguidos de las Antillas*.
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- Vassilyev, A.A.: SEE Mukhametov et al., 1992.
- Vaz-Ferreira, R.
1979. Situación poblacional y conservación de los mamíferos marinos en Latinoamérica.
Acta Zool. Lilloana, 34: 91–101.
- Vazzana, A.
1988. Sirenídi del Miocene in Calabria.
Not. Mineral. Pal., No. 56: 27–29. Illus.
- Vekua, A.K.: SEE Gabuniya & Vekua, 1974.
- Venkateswarlu, T.
1990. Marine mammals of the Indian seas.
Environ. Ecol. (Kalyani), 8(3): 1050–1052.
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1937. La fauna cattiiana delle glauconie Bellunesi.
Mem. Ist. Geol. Univ. Padova, 13: 1–209. 12 pls.
–Considers *Halitherium bellunense* to be Chattian (Late Oligocene) in age (7, 13, 196).
- Verhaart, W.J.C.
1970. *Comparative anatomical aspects of the mammalian brain stem and the cord*.
Assen (The Netherlands), Konink. Van Gorcum & Comp. N.V., Vol. 1 (text): 1–338; Vol. 2 (tabs. & illus.): 1–311.
–Describes a brain of *Manatus* (1: 208–213); considers its central nervous system to be degenerate.
- x Verhaart, W.J.C.
1972. The brain of the seacow *Trichechis* [sic].
Psychiatr. Neurol. Neurochir., 75(4): 271–292. 14 figs.
–Redescribes G. Jelgersma's (1934) stained serial sections of a brain of *T. manatus*.
- Veríssimo, José
1895. *A pesca na Amazônia*.
Rio de Janeiro, Livr. Classica de Alves & Cia., 1–206.
–Repr.: Univ. Fed. do Pará, 1–130, 1970. A classic work on Brazilian fisheries. Describes in detail the hunting and past and present economic use of *T. inunguis* in the Brazilian Amazon (35–40, 55, 92–93, 96, 99–102, 117, 119), including some commercial statistics. Also discusses the use of manatees (*T. m. manatus*) for food in Maranhão (99; page references here and in the Index are to the 1970 reprint ed.).
- Vermeulen, J.
1966. *M.U.L.O. dierkunde voor Suriname*. Ed. 6.
Paramaribo, 1–227. 246 figs.
- Verne, Jules
1869. *Five weeks in a balloon; or, journeys and discoveries in Africa, by three Englishmen*.
New York, D. Appleton & Co., 1–345. Illus.
- Verne, Jules
1875. *The mysterious island*.
New York, Scribner, Armstrong & Co., 1–110. Illus.
–Includes a fanciful account of an encounter with a dugong.
- Veron, John: SEE Heinsohn et al., 1985.
- Verrill, Alpheus Hyatt
1939. *Strange animals and their stories. Animals in armor. The land of marsupials. Topsyturvy creatures. Behemoths of Scripture. Giants who took to the sea. Camels of the Andes. The strangest animal of all*.
Boston, L.C. Page & Co., xiv + 235. Illus. Jan. 1939.
–Sirs., 113–115.
- Versaggi, Charles S.
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Science of Biol. Jour., 3(2): 305–306.
- Verschuren, J.: SEE Dupuy & Verschuren, 1977.
- Vessey-Fitzgerald, D.
1936. Trinidad mammals.
Tropical Agriculture, 13(6).
- Via Boada, Luis: SEE ALSO Crusafont-Pairó, M., 1973; Pilleri et al., 1989.
- Via Boada, Luis
1950. Un monstruo marino en Vilafranca.
Acción Católica (Vilafranca del Penedès, Spain), No. 33 (Numero Extraord. Dedicado a la Fiesta Mayor de 1950): 8.
- Vialli, M.: SEE Milani & Vialli, 1928.
- Viaud, Jean-Marc
1979. Contribution à l'étude des dépôts tertiaires dans la région de Saint-Hilaire-de-Clisson (44).
Bull. Soc. Sci. Nat. Ouest France (n.s.), 1(3): 146–162. 5 tabs. 4 figs. 6 pls. Sep. 1979.
–Mention of *Halitherium*.
- Vicq-d'Azyr, Felix
1792. Quadrupèdes. In: *Encyclop. Method. Syst. Anat.*
Vol. 2: clxiv + 632.
–Sirs., cvii.
- x Vieira, Antonio ("Vieyra")
1735. *Cartas do P. Antonio Vieyra da Companhia de Jesu Tomo Segundo...*
Lisboa Occidental, Officina da Congregação do Oratorio, [10] + 479.
–Pp. 25–26 (in "Carta II. A El Rey," dated at Maranhão, Brazil, Feb. 11, 1660; pp. 12–45):

{“Chegou finalmente o anno passado de mil seiscentos sincoenta e oito o Governador D. Pedro de Mello com as novas da guerra apregoada com os Ollandezes, com os quaes alguma das naçoens dos Nheengaiabas [26] ha muito tempo tinhão commercio, pela vizinhança dos seus portos com os do Cabo do Norte, em que todos os annos carregão de peyxe Boy mais de vinte navios de Ollanda...”}

This letter is the original source of the oft-quoted statement that in the 17th century “more than 20 Dutch ships” a year sailed from Brazil loaded with manatee meat. Their destination is not stated.

- x Vieira, Carlos O. da Cunha
1949. Nova contribuição ao conhecimento dos mamíferos do Rio Juruá. *Bol. Mus. Paraense Emilio Goeldi*, 10: 239–274. –Gives skull measurements of 2 young *T. inunguis* caught on the Rio Juruá near João Pessoa, Brazil, between Jul. 1936 and Feb. 1937. Briefly summarizes the taxonomy of *Trichechus*, regarding *T. senegalensis* as a subspecies of *T. manatus* and coining for it the new combination *T. manatus senegalensis* (241, 268–269).
- Vieira, Carlos O. da Cunha
1955. Lista remissiva dos mamíferos do Brasil. *Arq. Zool.* (São Paulo), 8(11): 341–474. –Lists *T. inunguis* (456) and *T. m. manatus* (457), with their synonyms and brief summaries of their distributions.
- Vieira, João Pedro Dias
1856. *Relatorio apresentado á Assembléa Legislativa Provincial ... no dia 8 de Julho de 1856...* Barra do Rio Negro [= Manaus, Brazil], Typ. de F. J.S. Ramos. –Repr.: pp. 469–527 in collected *Relatorios da Presidencia do Amazonas*, 1852–1858, Rio de Janeiro, Typ. Universal de Laemmert, Dec. 1905. Statistics on manatee exploitation, 516, 517, 519 (of 1905 ed.).
- Vietmeyer, Noel D.: SEE ALSO Anonymous, 1976f.
- x Vietmeyer, Noel D.
1974a. The endangered but useful manatee. *Smithsonian*, 5(9): 60–65. 6 figs. Dec. 1974. –Pop. acc. of manatees, their use in weed control, and the manatee research center in Guyana, with photos of Florida manatees and Guyanese canals.
- Vietmeyer, Noel D.
1974b. A scheme to save the manatee. In: *Proceedings of Symposium on endangered and threatened species of North America*. Washington, D.C., W.C.S.R.C. Wolf Sanctuary (St. Louis, Missouri), 219–221.
- x Vietmeyer, Noel D.
1975. The beautiful blue devil. *Nat. Hist.* (New York), 84(9): 64–73. 5 figs. Nov. 1975. –Article on *Eichhornia crassipes*, mentioning manatees (71), with a photo of a manatee eating a water hyacinth (72–73).
- Viguier, Maurice-Gabriel
1892. Pliocène des environs de Montpellier. *C.R. Assoc. Franç. Avanc. Sci.*, 20(2): 405–416. Tabs. 1 fig. –Mentions *Halitherium* sp.
- x Villa-Ramírez, Bernardo; & Colmenero-Rolón, Luz del Carmen
1981. Presencia y distribución de los manatíes o tla-camichin, *Trichechus manatus* Linneo 1782, en México. *An. Inst. Biol. Univ. Nac. Autón. México (Ser. Zool.)*, 51(1): 703–707. 1 tab. 2 figs. Dec. 28, 1981. –Briefly summarizes manatee distribution records obtained in a questionnaire, interview, and aerial survey of southeastern Mexico. The term “tla-camichin” is not explained.
- Villiers, A.: SEE Bessac & Villiers, 1948.
- Vincent, J.: SEE Fisher et al., 1969.
- Vine, Peter; & Schmid, H.
1987. *Red Sea explorers*. London, Immel Publishing.
- D Viret, Jean
1955. Siréniens (fossiles). In: P.-P. Grassé (ed.), *Traité de Zoologie*. Paris, Masson & Cie: Vol. 17(1), 993–1001. Figs. 953–960.
- Vogel, Dr.: SEE Shaw, N., 1857.
- Vogelbein, Wolfgang: SEE Dailey et al., 1988.
- Vogelsang, Enrique G.: SEE Khalil & Vogelsang, 1932; Travassos & Vogelsang, 1931.
- Vogt, H.-H.
1979. Seekühe gegen die Algenplage. *Tauchen*, 2(11): 58.
- Voigt, E.: SEE Hucke & Voigt, 1929.
- Vondra, Carl F.
1974. Upper Eocene transitional and near-shore marine Qasr el Sagha Formation, Fayum Depression, Egypt. *Ann. Geol. Surv. Egypt*, 4: 79–94. 6 figs. –Notes the stratigraphic occurrence of sirs. in the Fayum (83–84).
- Voorhies, Barbara: SEE Stark & Voorhies, 1978.
- x Voorhies, Michael R.
1969. An Eocene sea cow tooth from Twiggs County, Georgia. [Abstr.] *Bull. Georgia Acad. Sci.*, 27(2): 93–94. Apr. 1969. –Reports a lower molar from the Upper Eocene Ocala Formation, and states incorrectly that it was

“the first Eocene sirenian known from the United States.” In the end it turned out not even to be a sir., but rather an entelodont (see Domning, Morgan, & Ray, 1982: 3).

Voorhies, Michael R.

1973. Vertebrate fossils of coastal Georgia; a field geologist's guide.

Georgia Geol. Soc. Guidebook, No. 8: 81–102.

x Voorhies, Michael R.

1974. Late Miocene terrestrial mammals, Echols County, Georgia.

Southeast. Geol., 15(4): 223–235. 9 figs. Apr. 1974.

–Reports sir. rib fragments associated with Barstovian land mammals in the Statenville Local Fauna (228).

Vorderman, A.G.

1893. *Enhalus koeningii* Rich. als voedingsgewas in Bantam.

Teysmannia, 4: 705–709.

x Vorontsov, N.N.

1973. Pochemu morskaya korova sokhranyalas' na Komandorakh? [Why had the sea cow persisted in the Commander Islands?]

Priroda, 1973(11): 124. Nov. 1973.

–In Russian. Concludes that *Hydrodamalis* formerly inhabited the entire North Pacific littoral, and was exterminated by aboriginal hunters everywhere but in the Commander Islands, which humans had not reached.

Vosburgh, Frederick G.: SEE Truslow & Vosburgh, 1967.

Vosseler, J.: SEE ALSO Hentschel & Vosseler, 1915.

Vosseler, J.

1907. Aus dem Leben ostafrikanischer Säuger.

Zool. Beob., 48: 225–241.

x Vosseler, J.

1924–1925. Pflege und Haltung der Seekühe (*Trichechus*) nebst Beiträgen zu ihrer Biologie.

Pallasia (Dresden), 2(2): 58–67, 113–133, pls. 5–6; 2(3): 167–180, 213–230, 2 tabs. 2 figs.

–Perhaps the most elaborate anecdotal account of the captive biology of sirs. yet written. After listing and discussing 24 instances of manatees kept in captivity (59–63), Vosseler describes the capture and transport of two *T. inunguis* from Brazil to Germany, and gives detailed advice on transporting manatees by sea and land (63–67, 113–114). He then describes many aspects of the biology and life in captivity of the two Amazonian specimens in Hamburg, including captive conditions (114–119), feeding (including coprophagy and eating meat and fish) and defecation (119–129), illnesses (129–133), growth and external

measurements (167–173), supposed sexual dimorphism of the tail, flipper, and head (173–175), sexual behavior (175–180), characteristics of the epidermis (213–217), experiments on their senses of taste and smell (217–220), appearance of their eyes (220), hearing (220–221), movements, breathing, sleep, and locomotion on land (221–225). (Their subsequent fatal illnesses are described in Vosseler, 1930.) Notes that their feeding and activity are not exclusively nocturnal (226), and that manatees are compatible with other species in zoo exhibits (227); extols the value of sirs. to zoos and the relative ease of keeping them (228–230). Also includes, most unexpectedly, some rather insignificant observations and remarks on *Dugong* in German East Africa and the author's unsuccessful attempts to determine whether they use their tusks in feeding (225–226).

x Vosseler, J.

1930. Krankheit und Tod des Hamburger Sirenenpaares. *Zs. Säugetierk.*, 5(6): 362–364. Dec. 22, 1930.

–Reports the deaths of a long-captive pair of *T. inunguis* from enteritis and fungal infection, ascribed to an accidental change in water temperature.

Vousden, D.H.

1985. Dugong herd.

New Scientist, 1450: 47.

–Letter to the editor.

Vrolik, Willem Th.

1852. Bijdrage tot de natuur- en ontleedkundige kennis van den *Manatus Americanus*.

Bijdragen tot de Dierkunde (Amsterdam, Koninklijk Zoologisch Genootschap Natura Artis Magistra) Afl. 4, D. 1, Afd. 2 [?]: 53–80. 6 pls.

–Publ. 1851? Detailed account of the external morphology, osteology, dentition, digestive tract, heart, larynx, penis, and other organs of *T. manatus*.

x Vúletin, Alberto

1960. Zoonimia Andina (nomenclador zoológico).

Publ. Univ. Nac. de Tucumán, Fac. Filos. y Letras, Inst. Ling. Folklore y Arq. (Santiago del Estero, Argentina), No. 807: 1–204. 28 figs. 1 map. Nov. 14, 1960.

–Brief gen. acc. of *T. manatus*, the use of its meat and hide, the origin of the name “manatí,” and its occurrence in the Rio Orinoco and Lake Maracaibo; also indicates (possibly by a misprint) that it is found on “the coasts of Chile” (124).

Vyvyan, C.C.

1938. Dugong-hunters.

Cornhill Mag., 154: 366–379. Sep. 1938.

W

- Wack
1901. [Title?]
Field & Stream, 5(12): 737. Jan. 1901.
–Brief account of manatees in Florida.
- Wagler, Joh.
1830. *Natürliches System der Amphibien, mit vorangehender Classification der Säugthiere und Vögel. Ein Beitrag zur vergleichenden Zoologie.*
Munich, Stuttgart & Tübingen, J. G. Cotta'schen Buchhandlung, vi + 354.
–Allen 754. *Manatus*, 32; *Halicore* and *Rytina*, 33.
- Wagner, Johann Andreas: SEE Schreber & Wagner, 1846.
- x Wagner, Roy
1982. The *ri*—unidentified aquatic animals of New Ireland, Papua New Guinea.
Cryptozoology, 1: 33–39. 4 figs. Winter 1982.
–Recounts native stories of “*ri*,” describes his own sighting of one, and concludes that they are not dugongs.
- x Wagner, Roy
1985. The nature of the *ri* (response to Sibert, Ellis, and Britton). [P. 156] Objective evaluation lacking (response to Beckjord).
Cryptozoology, 3: 149–151, 156. Apr. 1985.
–Two responses to comments by others on the “*ri*” of New Ireland. Agrees with Britton that it might be a small beluga whale.
- x Wagner, Roy; Greenwell, J. Richard; Raymond, Gale J.; & Nieda, Kurt von
1983. Further investigations into the biological and cultural affinities of the *ri*.
Cryptozoology, 2: 113–125. 6 figs. Winter 1983.
–Describes additional sightings of the “*ri*” or “*ilkai*” in New Ireland, and gives related information obtained from Barok and Susurunga villagers. Again concludes that the animals are not dugongs. Includes two inconclusive photos of a *ri* surfacing.
- Wagner, Rudolf
1843. *Lehrbuch der Anatomie der Wirbelthiere.*
Leipzig, 1–296.
–Sirs., 12.
- Waitkuwait, Ekkehard: SEE Roth & Waitkuwait, 1986.
- Wake, Judith Ann: SEE Heinsohn et al.
- Wako, Ryo: SEE Suzuki & Wako, 1987.
- x Waldeyer, W.
1886. Beiträge zur normalen und vergleichenden Anatomie des Pharynx mit besonderer Beziehung auf den Schlingweg.
Sitzb. Preuss. Akad. Wiss. (Berlin), 1886(1): 233–250. Read Feb. 25, 1886.
–Describes the pharynx of *Manatus americanus* (245–246, 248).
- x Waldeyer, W.
1892. Über den feineren Bau des Magens und Darmkanales von *Manatus americanus*.
Sitzb. Preuss. Akad. Wiss. (Berlin), 1892(8): 79–85. Feb. 18, 1892 (read Feb. 11, 1892).
–Describes the anatomy and histology of the digestive tract, with considerable attention to the musculature of the gut walls.
- Waldheim, Gotthelf Fischer von: SEE Fischer von Waldheim, Gotthelf.
- Waldron, John C.: SEE Powell & Waldron, 1981.
- Walker, Braz
1975. *Oddball fishes and other strange creatures of the deep.*
New York, Sterling Publ. Co.; London, Oak Tree Press Co., 1–192. Illus.
- Walker, Cecil M.: SEE Cardeilhac et al., 1981.
- x Walker, Kath
1972. *Stradbroke dreamtime.*
Sydney, Angus & Robertson, 1–120. Illus.
–Later ed.: Sydney, Angus & Robertson, 1–64, 1982. An Aboriginal woman's reminiscences of netting and eating dugongs in Queensland (71–74).
- Walker, M.J.
1973. How wild animals help people.
Defenders Wildl. News, 48: 327–329.
- x Wall, William P.
1983. The correlation between high limb-bone density and aquatic habits in Recent mammals.
Jour. Pal., 57(2): 197–207. 2 tabs. 3 figs. Mar. 1983.
–Compares bone densities of *T. manatus* and other mammals; considers the high density of sir. bones an adaptation for reducing buoyancy during shallow dives.
- x Wallace, Alfred Russell
1853. *Travels on the Amazon and Rio Negro.*

London, Reeve & Co., viii + 541.

—Ed. 2: London, Ward, Lock, & Co., 1889. Gives a mostly accurate gen. acc. of the Amazonian manatee's external and internal appearance, habits, and exploitation (185–187, 458–461).

Wallace, Alfred Russell

1876. *The geographical distribution of animals*. New York (2 vols.), Vol. 1: xv + 503; Vol. 2: ix + 607. Illus.

—Sirs., 1: 502, 2: 210.

x Wallace, Alfred Russell

1883. Australasia. In: *Stanford's compendium of geography and travel*. Ed. 3.

London, Edward Stanford, xx + 672.

—P. 54: {"... [O]n the warmer coasts of Queensland is found the sea-cow or dugong (*Halicore australis*), allied to the animal found in the Indian seas, but believed to be a distinct species."}

Wallach, Joel D.: SEE Boever et al., 1976.

Waller, Ben I.

1970. Some occurrences of Paleo-Indian projectile points in Florida waters.

Florida Anthropologist, 23(4): 129–134.

Walls, Gordon Lynn

1942. The vertebrate eye and its adaptive radiation.

Cranbrook Inst. Sci. Bull. (Bloomfield Hills, Michigan), No. 19: xiv + 785. Illus. Aug. 1942.

—Later ed.: N.Y., Hafner, 1963. Sirs., 408–410, 447.

x Walsh, Kathleen

1989. Manatees.

Ranger Rick (Natl. Wildlife Federation), 23(6): 4–9. 6 figs. + fig. on pp. 2–3. Jun. 1989.

—Children's article on Florida manatees, with excellent underwater color photos.

Walsh, Michael T.: SEE ALSO Upton et al., 1989.

x Walsh, Michael T.; Bossart, Gregory D.; Young, W. Glenn, Jr.; & Rose, Patrick M.

1987. Omphalitis and peritonitis in a young West Indian manatee (*Trichechus manatus*).

Jour. Wildl. Diseases, 23(4): 702–704.

—Describes necropsy findings in a newborn female manatee from the west coast of Florida, which died of septicemia apparently originating at the umbilicus.

Walter, Jaime (ed.)

1967. *Frei Cristóvão de Lisboa: História dos animais e árvores do Maranhão*.

Lisbon, Arquivo Histórico Ultramarino e Centro de Estudos Históricos Ultramarinos, xii + 159. Illus.

—Facsimile, with biography, transcript, modern version, and notes, of a MS. dating from 1624–1636. See also Whitehead (1977: 176–178),

according to whom this is the first Brazilian record to provide a description, drawing, and firm locality of a manatee (*T. m. manatus*).

x Walters, Mark J.

1985. Marvelous, magnificent manatees.

Reader's Digest, 127(760): 171–172, 175–176. 3 figs. Aug. 1985.

—Pop. acc. of manatees in Florida.

Walton, P.J.: SEE Miyake et al., 1992.

Walton, William, Jr.

1810. *Present state of the Spanish colonies, including a particular report of Hispañola, or the Spanish part of Santo Domingo; with a general survey of the settlements on the south continent of America*. London, Longman, Hurst, Rees, Orme & Brown (2 vols.). Illus.

Walz, Daniel A.: SEE Shoshani et al., 1986.

Wang, Guangjie: SEE Dong et al., 1992.

x Wang, Peilie

1993. Fauna of marine mammals in China.

Acta Oceanologica Sinica, 12(2): 273–278. 1 tab.

—Records the presence of *Dugong dugon* in the South China Sea and in coastal waters of Taiwan (275–278).

Wang, Peilie; & Sun, Jianyun

1986. Distribution of the dugong off the coast of China.

Acta Theriol. Sinica, 6(3): 175–181. 2 tabs. 1 fig. Aug. 1986.

—In Chinese; Engl. summ.

Wang, Zuyan

1989. Manatee, an ugly treasure.

Nature (Beijing), No. 37: 46–47. Aug. 8, 1989.

—In Chinese.

x Ward, Henry L.

1887. The pelvis of the dugong.

Science, 9(226): 536. 1 fig. Jun. 3, 1887.

—Describes accurately the orientation of the pelvis and the composition of the vertebral column, based on examination of 6 ligamentary skeletons.

Ward, Leslie I.; & Weigle, Bradley L.

1993. To save a species: GIS for manatee research and management.

GIS World, 6(8): 34–37. Cover illus. + 4 figs. Aug. 1993.

Wargasasmita, S.

1985. Manatee and other herbivorous animals. In: *Proc. [of symposium on?] Ecology & Management of Aquatic Vegetation in the Tropics*, Mar. 26–29, 1985.

Jakarta, Univ. of Indonesia, p. WVI/19–9. [?]

x Warhol, Patricia

1982. Steller's sea cow: gentle giant of the North Pacific. *Whalewatcher* (*Jour. Amer. Cetacean Soc.*), 16(1): 10–12. 3 figs. Spring 1982.

—Pop. acc. of *Hydrodamalis gigas*, with an artist's reconstruction by Pamela Vesterby. See also R.K. Bonde (1982).

Warren, George

1667. *An impartial description of Surinam upon the continent of Guiana in America. With a history of several strange beasts, birds, fishes, serpents, insects, and customs of that colony, &c.* London, N. Brooke, 1–28.

—Various later eds. Manatee, 2 (quoted in Husson, 1978): “There is another [fish], call'd the Manatee, who feeds upon Bushes by the River side, gives suck like a Cow, and eats more like Flesh than Fish.”

x Warren, J.C.

1849. [Presentation of the stuffed skin and skeleton of an American manati.] *Proc. Boston Soc. Nat. Hist.*, 3: 199. Nov. 21, 1849.

—Briefly notes the existence of two manatee species (*Manatus Senegalensis* and *M. Americanus*). Prof. [Louis] Agassiz remarked that “the skin was the only one of this animal in any scientific collection” [in America?], although some bones were in collections in Philadelphia and Charleston.

x Warren, John Esaias

1851. *Para; or, scenes and adventures on the banks of the Amazon.*

New York, G.P. Putnam, 1–271.

—Brief account of the manatee (149).

D Watanabe, Kagetaka

1953. Some considerations on the geological horizons of desmostylids from the Chichibu basin, Saitama Prefecture and from other localities of Honshu, Japan.

Bull. Chichibu Mus. Nat. Hist., No. 3: 43–60. Illus.

—In Japanese; Engl. summ.

D Watanabe, Kagetaka; & Iwahori, Shojiro

1952. Stratigraphical studies of the Tertiary strata in the Toki basin, Gifu Prefecture.

Jour. Geol. Soc. Japan, 58(684 [1983?]): 433–443. Illus.

—In Japanese; Engl. summ. *Desmostylus*.

Waterhouse, George Robert

1838. *Catalogue of the Mammalia preserved in the Museum of the Zoological Society of London*. Ed. 2.

London, Zoological Society (printed by Richard & John E. Taylor), 1–68.

—Allen 948. P. 35: {“Dugong.... From Sumatra./Halicornes Dugong. *F. Cuv.*/Presented by Sir T. S. Raffles.”}

Waterstrat, P.: SEE White, Francis-Floyd & Waterstrat, 1984.

Watkins, W.A.: SEE Schevill & Watkins, 1965.

x Watson, Alastair G.; & Bonde, Robert K.

1986. Congenital malformations of the flipper in three West Indian manatees, *Trichechus manatus*, and a proposed mechanism for development of ectrodactyly and cleft hand in mammals.

Clinical Orthopaedics, 202: 294–301. 6 figs. Jan. 1986.

—Describes 3 cases of complete or partial absence of digits found among 784 manatee carcasses salvaged in the southeastern USA.

x Watson, Ernest

1923. *The principal articles of Chinese commerce (import and export)*.

Shanghai, Inspectorate General of Customs (China. The Maritime Customs. II.—Special Series: No. 38), 1–630.

—Includes a paragraph on the nature and use of dugong oil (103).

x Watterlond, Michael

1982. The coyote next door.

Science 82, 3(2): 94, 96. 3 figs. Mar. 1982.

—Pop. acc. of Florida manatees frequenting power plant discharges during cold weather.

x Watters, David R.; Reitz, Elizabeth J.; Steadman, David W.; & Pregill, Gregory K.

1984. Vertebrates from archaeological sites on Barbuda, West Indies.

Ann. Carnegie Mus., 53(13): 383–411. 2 tabs. 8 figs. Sep. 28, 1984.

—Reports a manatee humerus from the Indiantown Trail site, the first record of *T. manatus* from Barbuda (404, 406–407, 409).

Watts

1890. *Dictionary of economic products*.

[Publisher?]

—Sirs., 3: 197.

Wauchope, Robert (ed.)

1964. *Handbook of Middle American Indians. I. Natural environment and early cultures*.

Austin, Univ. of Texas Press, vii + 570.

—Sirs., 141, 320.

Waugh, Arthur: SEE Benwell & Waugh, 1961.

Waugh, Gregg: SEE Odell et al., 1978.

x Wavrin, Marquis de

1939. *Les bêtes sauvages de l'Amazonie et des autres régions de l'Amérique du Sud*.

Paris, Payot, 1–301. 24 pls. 1 map.

—General and often inaccurate account of manatees and manatee hunting in northern South America and Amazonia; does not distinguish between *T. manatus* and *T. inunguis* (194–196).

- Waxell, Sven Larsson: SEE ALSO Büchner, E., 1891; Golder, F.A., 1922.
- Waxell, Sven Larsson
1940. *Vtoraya kamchatskaya ekspeditsiya Vitusa Beringa*. [Vitus Bering's Second Kamchatka Expedition.] Leningrad & Moscow, Izdatelstvo Glavsevmorputi, 1-170. Illus.
-Most of this work is a Russian transl. of the manuscript also translated by Michael (see Waxell, 1962), but Michael's ed. lacks the material on pp. 138ff. here. This latter material is Waxell's report translated in Golder (1922). Steller's sea cow, 126-128, 149, etc.?
- Waxell, Sven Larsson
1962. *The Russian expedition to America. With an introduction and notes by M. A. Michael*. New York, Collier Books, 1-190.
-"Translated from Johan Skalberg's Danish version, *Vitus Berings eventyrlige opdagerfaerd 1733-1743* [Copenhagen, Rosenkilde & Bagger, 1-139, 1948], by M. A. Michael." Originally published in Engl. under the title *The American Expedition* (London, Edinburgh, & Glasgow, Wm. Hodge, 1-236, 1952). The German manuscript original was first discovered and published in part by E. Büchner (1891). The MS. itself was lost during the Russian Revolution, then reappeared in a bookshop and was purchased by the State Library in Leningrad, according to Michael's introduction to this ed. (p. 22). A photocopy of this MS. was the basis for the Danish translation that in turn is translated here into Engl. Steller's sea cow, 157-159.
- x Webb, S. David
1974. Chronology of Florida Pleistocene mammals. In: S.D. Webb (ed.), *Pleistocene mammals of Florida*. Gainesville, Univ. Florida Press (x + 270), 5-31. 1 tab. 3 figs.
-Lists *T. manatus* at 9 Pleistocene localities (18), of which the records at Punta Gorda, Aucilla R. IA, and Chipola R. IA have since proven to be erroneous (S.D. Webb, pers. comm.).
- x Webb, S. David
1976. Mammalian faunal dynamics of the great American interchange. *Paleobiology*, 2(3): 220-234. 4 tabs. 4 figs. Summer 1976.
-Cites *Trichechus* as an example of a South American immigrant to North America in the Late Blancan (Pliocene), based on its occurrence at Santa Fe locality IA, Florida (221, 223, 226).
- Webb, S. David
1979. Fossil vertebrates of Florida. *Rocks & Minerals*, 54(4): 141-144. Aug. 1979.
- x Webb, S. David; MacFadden, Bruce J.; & Baskin, Jon A.
1981. Geology and paleontology of the Love Bone Bed from the Late Miocene of Florida. *Amer. Jour. Sci.*, 281: 513-544. 3 tabs. 4 figs. May 1981.
-Reports *Metaxytherium* sp. in a latest Clarendonian mammal assemblage from Alachua County, Florida (517, 521, 535). The specimens in question were referred to *M. floridanum* by Domning (1988).
- Weber, Max Wilhelm Carl
1904. *Die Säugethiere. Einführung in die Anatomie und Systematik der recenten und fossilen Mammalia*. Jena, Gustav Fischer, xii + 866. 567 figs.
-Sirs., 727-740.
- Weber, Max Wilhelm Carl
1927-1928. *Die Säugethiere. Einführung in die Anatomie und Systematik der recenten und fossilen Mammalia*. Ed. 2. Jena, Gustav Fischer (2 vols.). Illus.
-Sirs., 1: passim; 2: 479-504. Authored in part by O. Abel and H.M. de Burtlet. See also O. Abel (1928).
- Weber, Roy E.: SEE Farmer et al., 1979a,b.
- x Weber, Tom, Jr.
1975. Drop me a line! Bridge fishing in Florida. *The Salt Water Sportsman*, 36(4): 36-37, 66-67. 4 figs. Apr. 1975.
-Describes a formerly used method of poaching manatees by dropping weighted harpoons from bridges (66-67).
- x Wegner, Richard N.
1951. Der Tütenfortsatz (Processus cucullaris mandibulae) beim Elefanten, den Sirenen, Rhinozerotiden und Suiden. *Anat. Anz.*, 98: 66-82. 12 figs.
-Describes the dental capsules of *T. inunguis* and *T. senegalensis*, and attributes to these structures a "braking" effect on tooth movement (76-81).
- Weigle, Bradley L.: SEE ALSO Ward & Weigle, 1993.
- Weigle, Bradley L.; & Haddad, Kenneth D.
1990. Applications of the Florida Department of Natural Resources' Marine Resources Geographic Information System to manatee biology and management. In: J.E. Reynolds, III & K.D. Haddad (eds.), Report of the Workshop on Geographic Information Systems as an Aid to Managing Habitat for West Indian Manatees in Florida and Georgia. *Florida Mar. Res. Publ.*, 49: 23-27. 1 fig. Dec. 1990.

- Weigle, Bradley L.; Reynolds, John E., III; Patton, Geoffrey W.; & Wilcox, J. Ross
 1988. Manatee (*Trichechus manatus*) winter use of warm water discharges in Tampa Bay. In: K. Mahadevan, R.K. Evans, P. Behrens, T. Biffar, & L. Olsen (eds.), Proc. Southeastern Workshop on Aquatic Ecological Effects of Power Generation. *Mote Marine Lab. Rept.*, No. 124: 153–164.
- Weiss, F.
 1964. Seadogs and dugongs. *Fur Review* (London), Jul. 1964: 18–20.
- Welker, W.I.: SEE Reep et al., 1989.
- Wells, Neil A.: SEE ALSO Gingerich et al., 1990.
- D Wells, Neil A.; & Gingerich, Philip D.
 1983. Review of Eocene Anthracobunidae (Mammalia, Proboscidea) with a new genus and species, *Jozaria palustris*, from the Kuldana Formation of Kohat (Pakistan). *Contr. Mus. Pal. Univ. Michigan*, 26(7): 117–139. 3 tabs. 6 figs. Dec. 31, 1983.
- Welsby, Thomas
 1905. *Schnappering and fishing in the Brisbane River and Moreton Bay waters. Also included: a wandering discourse on fishing generally.* Brisbane, Outridge Printing Co., ix + 319. Illus. –Dugong, 94–108.
- Welsby, Thomas
 1931. *Sport and pastime in Moreton Bay.* Brisbane, Simpson, Halligan & Co. Ltd., v + 294. Illus. –Edition limited to 300 copies. Repr.: Welsby (1967).
- x Welsby, Thomas
 1967. *The collected works of Thomas Welsby... edited by A. K. Thomson.* Brisbane, Jacaranda Press (2 vols.). –Reprints an article by Fred Campbell (written circa 1894?) on dugong habits and the Moreton Bay (Queensland) dugong fishery (1: 102–108; from *Schnappering and fishing ...*), a letter by Saville Kent on dugong spears (1: 109–110), and detailed accounts of netting and butchering dugongs and rendering their oil (2: 233–257; from *Sport and pastime in Moreton Bay*).
- Welton, Bruce J.: SEE Barnes et al., 1981; Phillips et al., 1976.
- Welton, Joann: SEE Phillips et al., 1976.
- Wendt, Herbert: SEE ALSO Kurt & Wendt, 1972.
- Wendt, Herbert
 1959. *Out of Noah's Ark: the story of man's discovery of the animal kingdom.* Boston, Houghton Mifflin.
 –Transl. from German by Michael Bullock. *Sirs.*, 210–222.
- x Werzinger, Joachim
 1982. Sensation im Tiergarten Nürnberg: die Flaschen-Seekuh. *Tier*, 22(11): 34–37. 3 figs. –Pop. acc. of a *T. manatus* conceived and born in captivity in Nuremberg, and raised on a bottle because the mother seemed unwilling or unable to feed it.
- West, J.A.; Sivak, J.G.; Murphy, C.J.; & Kovacs, K.M.
 1991. A comparative study of the anatomy of the iris and ciliary body in aquatic mammals. *Canad. Jour. Zool.*, 69(10): 2594–2607. Illus. –French summ. Discusses *Trichechus manatus*.
- x West, Robert M.
 1980. Middle Eocene large mammal assemblage with Tethyan affinities, Ganda Kas region, Pakistan. *Jour. Pal.*, 54(3): 508–533. 1 fig. 5 pls. May 1980. –Compares *Anthracobune pinfoldi* (Moeritheriidae) with *Prorastomus* and other Eocene sirs., and considers *Anthracobune* to be closer to *Moeritherium* (520, 531).
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 1990. Uintan land mammals (excluding rodents) from an estuarine facies of the Laredo Formation (Middle Eocene, Claiborne Group) of Webb County, Texas. *Jour. Pal.*, 64(3): 454–468. Illus. May 1990.
- Wetterqvist, Orjan F.: SEE Packard & Wetterqvist, 1986.
- Weygandt, W.
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- Weyhe
 1875. Übersicht der Säugethiere nach ihren Beckenformen. *Zs. gesamt. Natw.*, 45(= n.s. 11): 97–123.
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 1979. An Oligocene (Orellan) sirenian from the Buca-

tunna Formation of Alabama.

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x Whitaker, Zahida

1976. Dugongs (*Dugong dugong*).

Madras Snake Park Trust Newsletter, No. 1: 6. May 1976.

–Brief report on dugong hunting and market prices on the coast of Tamilnadu, India, based on a survey in Oct. 1975.

White, Franklin H.: SEE Cardeilhac et al., 1981; Forrester et al., 1975; Irvine et al., 1980.

White, Jesse R.: SEE ALSO Cardeilhac et al., 1984; Francis-Floyd et al., 1991.

x White, Jesse R.

1984a. Man can save the manatee.

Natl. Geogr., 166(3): 414–418. 8 figs. Sep. 1984.
–Pop. acc. with photos of captive births of *T. manatus* at the Miami Seaquarium. Proposes a large-scale captive breeding program to restock wild manatee populations.

x White, Jesse R.

1984b. Born captive, released in the wild.

Sea Frontiers, 30(6): 321, 369–375. 12 figs. Nov.–Dec. 1984.

–Pop. acc. of captive births of *T. manatus* at the Miami Seaquarium and the release of two animals into the wild in Aug. 1984. Includes color photos of a manatee birth.

White, Jesse R.; & Francis-Floyd, Ruth

1990. Manatee biology and medicine. In: L.A. Dierauf (ed.), *CRC handbook of marine mammal medicine: health, disease, rehabilitation*.

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White, Jesse R.; Francis-Floyd, Ruth; & Cardeilhac, Paul T.

1984. Reproductive potential of a captive-breeding colony of Florida manatees.

Ann. Proc. Amer. Assoc. Zool. Parks & Aquars., 1984: 242–245.

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1984. Growth rate of West Indian manatees (*Trichechus manatus*) raised in captivity.

Proc. Internatl. Assoc. Aquatic Animal Medicine, 1(1): 30–34. 1 tab. 3 figs. Nov. 1984.

–Presents data on length and weight of 7 captive-born and 2 other captive-raised manatees at the Miami Seaquarium, and derives regression equations describing their growth.

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1976. Some studies on blood of the Florida manatee, *Trichechus manatus latirostris*.

Compar. Biochem. Physiol. A., 55(4): 413–417. 5

tabs. 4 figs.

–Presents blood cell counts and analyses of blood chemistry, hemoglobin, enzyme activities, oxyhemoglobin dissociation, and karyotype. The diploid chromosome number was found to be 48.

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New York, Heidelberg, & Berlin, Springer-Verlag.

White, M.E.: SEE Savage & White, 1964, 1965.

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1953. A method of calculating the dietary percentage of various food animals utilized by aboriginal peoples.

Amer. Antiquity, 18(4): 396–398. Tab. 14. Apr. 1953.

–Estimates that a 1,000-pound manatee yields 70% of its weight as usable meat (398).

x Whitehead, Peter J.P.

1977. The former southern distribution of New World manatees (*Trichechus* spp.).

Biol. Jour. Linn. Soc., 9: 165–189. 1 fig. 1 pl. Jun. 1977.

–Reviews in detail the accounts of manatees in 16th- and 17th-century (and some later) works on Brazil and adjacent coastal regions, extending the documented former distribution of *T. manatus* to about 20° S. Concludes that a “monster” killed at São Vicente in 1564 was not a manatee but a pinniped. See also Whitehead (1978).

x Whitehead, Peter J.P.

1978. Registros antigos da presença do peixe-boi do Caribe (*Trichechus manatus*) no Brasil.

Acta Amazonica, 8(3): 497–506. Sep. 1978.

–Recapitulates much of the information in Whitehead (1977), and adds further citations of early works that mention Brazilian manatees. Calls attention to a curious lack of manatee records from the coast between the Rios São Francisco and São Luis, and briefly summarizes the natural history data contained in these early reports.

xD Whitfield, William K., Jr.; & Farrington, Sandra L.

1975. An annotated bibliography of Sirenia.

Florida Mar. Res. Publ., No. 7: 1–44. 1 tab. Jun. 1975.

–Includes 488 titles on sirs. and desmostylians through 1971, partly annotated and indexed. Appendices (37–43) quote Florida and Guyana legislation relevant to manatees.

- Whitley, G.P.
1970. *Early history of Australian zoology*.
Sydney, Roy. Geol. Soc. New South Wales, 1-75.
38 figs.
-Dugong, 26.
- Whitmore, Frank Clifford, Jr.: SEE ALSO Gard et al., 1972;
Gernant et al., 1971; Kellogg & Whitmore, 1957.
- x Whitmore, Frank Clifford, Jr.
1987. A delphinoid ear bone from the Dam Formation
(Miocene) of Saudi Arabia.
Bull. Brit. Mus. (Nat. Hist.), Geol., 41(4): 447-
450. Fig. 53.
-Mentions "fragmented ribs of sirenians" found at
the type locality of the Burdigalian Dam Forma-
tion at Jabal Lidam, eastern Saudi Arabia (447).
- x Whitmore, Frank Clifford, Jr.; & Gard, Leonard Meade, Jr.
1977. Steller's sea cow (*Hydrodamalis gigas*) of Late
Pleistocene age from Amchitka, Aleutian Islands,
Alaska.
U.S. Geol. Surv. Prof. Paper, 1036: iii + 19. 5
tabs. Cover illus. + 10 figs. 8 pls.
-Describes a partial skeleton of an immature
animal and other *Hydrodamalis* remains from a
deposit at South Bight, Amchitka. Also includes
many measurements and illustrations of Bering
Island *H. gigas* specimens in the U.S. National
Museum; a description of a supposed *Hydro-*
damalis rib fragment from Kangiguksuk, north-
western Alaska (3, 15-16); and illustrations of the
mounted *Hydrodamalis* skeleton at Stockholm
(pl. 1). The cover illustration of a sea cow was first
publ. in V.B. Scheffer (1973).
- x Whitten, Anthony J.; Mustafa, Muslimin; & Henderson,
Gregory S.
1987. *The ecology of Sulawesi*.
Yogyakarta (Indonesia), Gadjah Mada Univ.
Press, xxi + 777 + [i]. Numerous tabs. & figs. 64
pls.
-Gen. acc. of dugong biology, with a map of their
distribution in Sulawesi (204-205, 207-210, pl.
13). Suggests that dugongs may help disperse
seeds of seagrasses (204).
- x Whitten, Anthony J.; & Whitten, Jane
1992. *Wild Indonesia: the wildlife and scenery of the
Indonesian archipelago*.
Cambridge (Mass.), MIT Press, 1-208. Illus.
-Brief pop. acc. of dugongs (60-61, 1 fig.).
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- x Whittow, G. Causey
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mals: interacting effects of exercise and body
mass. A review.
Mar. Mamm. Sci., 3(3): 220-241. 4 tabs. 3 figs.
Jul. 1987.
- Notes that the Sirenia, represented by *T. inun-*
guis, are "the only truly hypometabolic marine
mammals"; comments on the data of Gallivan et
al. (222, 224, 226-228, 230, 237).
- x Whybrow, Peter
1992. Palaeontological & geological studies in the
western & eastern regions of Abu Dhabi.
Tribulus: Bull. Emirates Nat. Hist. Group, 2(1):
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Pleistocene in age, at Sir Bani Yas, Abu Dhabi.
- Wicke, Charles R.: SEE Bradley et al., 1983.
- Wickham, Henry Alexander
1872. *Rough notes of a journey through the wilderness,
from Trinidad to Pará, Brazil, by way of the great
cataracts of the Orinoco, Atabapo and Rio Negro.*
*With, A journey among the Woolwa or Soumoo
and Moskito Indians of Central America.*
London, W.H.J. Carter, xiv + 301. 15 pls.
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dental histology, human and comparative*. Ed. 7.
London, Staples Press (2 vols.). Illus.
-Ed. 8, 1952. *Sirs.*, vol. 2.
- Wied-Neuwied, Maximilian Alexander Philipp, Prinz zu
1820. *Reise nach Brasilien in den Jahren 1815-1817*.
Frankfurt am Main, H.L. Brönnner, Vol. 1: 1-380.
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Editora Nacional (Biblioteca Pedagógica Brasi-
leira), *Brasiliana*, Ser. 5, Vol. 1: 1-536, 1958.
Reports manatees on the coast of Brazil, in the
Rios Doce (195; possibly pinnipeds), São Mateus,
and Itanhém (226).
- x Wied-Neuwied, Maximilian Alexander Philipp, Prinz zu
1826. *Beiträge zur Naturgeschichte von Brasilien*. Vol.
2.
Weimar, Verlage des Landes-Industrie-Comptoirs
(entire work: 4 vols. in 6, 1825-1833), Vol. 2:
1-620.
-Reports "*Manatus americanus*" from the Rios
São Matthaues and Alcobaça in Espírito Santo
and Bahia, Brazil; also gives notes on harpooning
manatees and the use of manatee oil and bone (2:
601-604).
- x Wiedemann, C.R.W.
1804. Beschreibung des Schädels vom Lamantin oder
Manati (*Trichecus manatus* L.).
Wiedemann's Arch. Zool. Zoot., 4(1): 67-76.
-Allen 474. Unillustrated but detailed description
of the skull, mandible, and teeth.
- x Wiegmann, Ar. Fr. Aug.
1838. Zusatz vom Herausgeber.
Wiegmann's Arch. Naturgesch., 4(1): 10-18.

- Allen 950. Supplement to A. v. Humboldt (1838). Discusses the systematic position of the Orinoco manatee described by von Humboldt, concluding that it is distinct from the West Indian species and should be termed *Manatus australis*. Also concludes that the word “manati” derives from the Carib word for “breast,” and lists other vernacular names (*Manattoui*, *Apcia*, *Avia*) cited by other authors (17–18).
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- Wiesner, H.: SEE Schweigert et al., 1991.
- Wight, George
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1911. Über das Aussterben grosser Tiergruppen im Laufe der Erdgeschichte. *Natw. Wochenschr.*, 26(= n.s. 10): 705–712.
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1979? Florida Power and Light Company and endangered species: examples of coexistence. *Proc. Mitigation Symposium* (Colorado State Univ., Ft. Collins, Jul. 16–20, 1979): 451–454.
- Wilcox, J. Ross
1980. Endangered species: compatibility with a utility. *Proceedings of the Conference Coastal Zone '80* (Hollywood, Florida): 179–185.
–Manatee, 180–182.
- x Wilcox, W.A.
1904. The fisheries and fish trade of Porto Rico in 1902. *U.S. Comm. Fish & Fisheries, Rept. of the Commissioner for the Year Ending June 30, 1902*: 367–395.
–P. 387: {“The manatee is occasionally taken off the beach near Ceiba. A few are take each year, usually by means of haul seines. The weight is said to run from 500 to 1,200 pounds. The flesh is highly prized and resembles beef in flavor.”}
- x Wilder, Burt G.
1875. On a foetal manatee and cetacean, with remarks on the affinities and ancestry of the Sirenia. *Amer. Jour. Sci.*, (3)10: 105–114. Pl. 8.
–Describes the “smallest foetal sirenian on record,” a *T. inunguis* from Peru 55 mm long (105–106, 108–109, 112–114), and reviews ideas on sir. affinities (107–113); concludes they are unguulates. See also Wilder (1908).
- Wilder, Burt G.
1905. Notes and queries as to: (a) the cerebral commissures of the elephant shrew *Macroscelides*; (b) brain and heart of a manatee, and what is believed to be the smallest known sirenian fetus; (c) the brains of various fishes, including the rare Japanese shark, *Mitsukurina*; (d) the swallowing of a young alligator by a frog. *Science* (n.s.), 21: 268–269.
–Refers to the same fetus described by Wilder (1875).
- x Wilder, Burt G.
1907. [Manatee embryo.] *Amer. Naturalist*, 41(490): 663. Oct. 1907.
–P. 663 (in “Scientific Exhibits at the Seventh International Zoological Congress”): {“Professor Wilder showed the ‘smallest known embryo of the manatee,’—a specimen approximately an inch and a half long.”} See also Wilder (1908).
- x Wilder, Burt G.
1908. The length of the smallest known sirenian fetus; gyre preferred to “convolution.” *Science* (n.s.), 27(699): 825. May 22, 1908.
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- Wiley, A.
1905. *Colombo Museum guide to the antiquities, minerals and natural history collections in the Colombo Museum*. Colombo, Colombo Museum, 1–66. 15 appendices. Numerous unnumbered pls.
–Dugongs, 38–40.

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- Yoshida, Mitsuo: SEE Kimura et al., 1983.
- x Yoshii, Michiko; Une, Mizuho; Kihira, Kenji; Kuramoto, Taiju; & Hoshita, Takahiko
1989. Synthesis of 5 β -cholestane-3 α ,6 β ,7 α ,25,26-pentol and identification of a novel bile alcohol, α -trichechol, present in West Indian manatee bile. *Chem. Pharm. Bull. (Tokyo)*, 37(7): 1852-1854. 2 tabs. 2 figs.
-Confirms the structure of α -trichechol by synthesizing the substance and comparing it with the naturally-occurring bile alcohol.
- xD Yoshiwara, Shigeyasu (= Tokunaga, Shigeyasu); & Iwasaki, C. ("J. Iwasaki")
1902. Notes on a new fossil mammal. *Jour. Coll. Sci., Imper. Univ. Tokyo*, 16(6): 1-13. 4 figs. 3 pls.
-Rev.: M. Schlosser, *Neues Jahrb. Min. Geol. Pal., Referate*, 1904(2): 464-465, 1904. The first Japanese paper on *Desmostylus*. Describes, but does not name, the Togari skull and mandible, and considers it a proboscidean on the advice of H.F. Osborn.
Following an old custom, Yoshiwara later adopted his wife's family name Tokunaga on the occasion of his marriage.

Young, Opal Dean

1982. *Green salads and love to a sea giant*.
Tallahassee, Florida Dept. Nat. Resources, 1-16.
7 figs. Sep. 1982.
-Children's story about Florida manatees. "A
slightly different version of this story first
appeared in the June/July 1981 issue of *Wee
Wisdom Magazine*" (2).

Young, S.: SEE Ralph et al., 1985.

Young, Thomas

1847. *Narrative of a residence on the Mosquito shore:
with an account of Truxillo, and the adjacent
islands of Bonacca and Roatan: and a vocabulary*

of the Mosquitian language. Ed. 2.
London, Smith, Elder, & Co., iv + 172.
-Harpooning manatees, 104.

Young, W. Glenn, Jr.: SEE Walsh et al., 1987.

Youngman, Phillip M.: SEE Forsten & Youngman, 1982.

Yule, Henry; & Burnell, Arthur Coke

1903. *Hobson-Jobson; a glossary of colloquial Anglo-
Indian words and phrases, and of kindred terms,
etymological, historical, geographical and dis-
cursive.... New ed. edited by William Crooke, B.A.*
London, J. Murray, xlviii + 1021.
-First ed., 1886. Sirs., 330.

Yushin, Kharlam: SEE Golder, F.A., 1922.

Z

- x Zaaier, T.
 1894. Die Persistenz der Synchrondrosis condylo-
 squamosa am Hinterhauptsbeine des Menschen
 und der Säugetiere.
Anat. Anz., 9(11): 337–342. 4 figs. Mar. 30, 1894.
 –Notes the occurrence of unfused exoccipital-
 supraoccipital sutures in two dugong skulls, and
 regards them as anomalous (340).
- Zann, Leon: SEE Gray & Zann, 1988.
- Zárate Becerra, Edith: SEE ALSO Colmenero-R. & Zárate,
 1990.
- Zárate Becerra, Edith
 1993. Distribución del manatí (*Trichechus manatus*) en
 la porción sur de Quintana Roo, México.
Revista de Investigación Científica (Univ. Autón.
 de Baja California Sur), Sér. Ciencias del Mar 1
 (Número Especial SOMEMMA 1), 1–11. 5 tabs.
 3 figs. May 1993.
 –Engl. summ. This special number is devoted to
 papers from the Sociedad Mexicana para el
 Estudio de los Mamíferos Marinos.
- Zavala, Ma. Elia Hoz: SEE Colmenero-Rolón & Hoz-
 Zavala, 1986.
- x Zbyszewski, Georges
 1944. Note sur la découverte d'un humerus de *Metaxi-
 therium Petersi* Abel dans l'Helvétien Vb de
 Lisbonne.
Bol. Soc. Geol. Portugal, 4(1/2): 69–72. 2 figs.
 –Refers a Miocene humerus from Quinta da
 Farinheira (Chelas, Portugal) to *M. petersi* on the
 basis of its size, shape, and intertubercular angle.
- Zbyszewski, Georges
 1949. Les vertébrés du Burdigalien supérieur de Lis-
 bonne.
Mem. Serv. Geol. Portugal.
- Zbyszewski, Georges
 1954. L'Aquitainien supérieur de Lisbonne et du Riba-
 tejo.
Com. Serv. Geol. Portugal, 35.
- x Zdansky, Otto
 1938. *Eotherium majus* sp. n., eine neue Sirene aus dem
 Miozän von Ägypten.
Palaeobiologica, 6(2): 429–434. 1 fig.
 –Bases the new species on a single upper molar
 from Gebel Mokattam, Egypt.
- x Zeiller, Warren
 1891. The management of West Indian manatees (*Tri-
 chechus manatus*) at the Miami Seaquarium. In:
 R.L. Brownell, Jr., & K. Ralls (eds.), *The West
 Indian manatee in Florida. Proceedings of a
 workshop held in Orlando, Florida 27–29 March
 1978* (q.v.).
 Tallahassee, Florida Dept. Nat. Res. (iv + 154),
 103–110. 1 tab. 1 fig.
 –Describes the Seaquarium's past, present, and
 proposed manatee facilities, the care and feeding
 of an orphaned calf, its measurements and growth
 on an artificial milk formula, the treatment of
 ectoparasitic infestations, the control of algal
 growth on manatees and in tanks, mating in
 captivity, and the birth of a calf conceived in
 captivity.
- Zeiller, Warren
 1992. *Introducing the manatee*.
 Gainesville, University Press of Florida, 1–161. 1
 tab. 110 figs.
 –Pop. acc. of sirs., emphasizing the author's
 experiences with captive Florida manatees at the
 Miami Seaquarium.
- Zemskij, V.A.: SEE Arseniev et al., 1973.
- x Zhang, Zhou-man
 1979. About dugong. The secret of mermaids.
Nat. Hist. (Shanghai Nat. Hist. Mus.), 1: 33–36.
 –In Chinese. Pop. acc. of mermaid legends and of
 an expedition in 1975 that captured a group of
 supposed mermaids (dugongs) on the coast of
 Kwangsi, China, north of Hainan Island.
- Zhou, Kaiya
 1986. An outline of marine mammalogical researches in
 China.
Acta Theriol. Sinica, 6(3): 219–232. 2 tabs.
 –In Chinese; Engl. summ. Includes extensive
 bibliography of Chinese marine-mammal litera-
 ture.
- Zhou, Xiaoyuan: SEE Gingerich et al., 1993.
- Zieman, Joseph C.: SEE Thayer et al., 1984.
- Zigno, Achille de
 1871. *Halitherium*, dann *Mastodon arvernensis* in den
 Tertiärgestalten im Venetianischen.
Verh. Geol. Reichsanst. Wien, 1871: 15–16.
- Zigno, Achille de
 1873a. Resti di sirenoidi trovati nel Veneto.
Boll. Com. Geol. Ital., 4: 57–58.

- Zigno, Achille de
1873b. Reste von Sirenoiden, gefunden in Venetien.
Verh. Geol. Reichsanst. Wien, 1873: 25–26.
–Abstr.: *Quart. Jour. Geol. Soc. London*, 29(2): 5?
- Zigno, Achille de
1875a. Sireнии fossili trovati nel Veneto.
Mem. Ist. Veneto Sci. Lett. Arti, 18: 427–456. Pls. 14–18.
–Abstr.: *Atti Ist. Veneto Sci.*, (5)1: 302–303? De Zigno's most important work on sirs. Describes the new species *Halitherium Bellunense* (Early Miocene, Italy), *H. angustifrons*, *H. curvidens*, and *H. Veronense* (the latter three all = *Prototherium veronense*; Late Eocene, Italy).
- Zigno, Achille de
1875b. Sui mammiferi fossili del Veneto.
Riv. Period. Lav., Accad. Sci. Lett. Arti Padova, 24: 101–112. Read Jul. 26, 1874?
- Zigno, Achille de
1877. Sopra un primo cranio di *Halitherium* rinvenuto nei terreni eocenici d'Italia, e sopra quattro plagiostomi del Monte Bolca.
Atti Ist. Veneto Sci., (5)3: 496–497.
- x Zigno, Achille de
1878a. Sur les siréniens fossiles d'Italie.
Bull. Soc. Géol. France, (3)6: 66–70. 1 tab. Read Oct. 25, 1877.
–Summarizes researches on Italian sirs. and the names applied to them to date, including *Felsinotherium subapenninum*, n.comb., and "*Felsinotherium* n. sp." (= *F. gastaldi*). Recognizes 3 Eocene and 1 Miocene species of *Halitherium* and 4 Pliocene species of *Felsinotherium*.
- Zigno, Achille de
1878b. Sopra un nuovo sirenio fossile scoperto nelle colline di Brà in Piemonte.
Atti Accad. Lincei, Mem. Classe Sci. Fis. Matem. Nat. (Rome), (3)2: 939–949. 6 pls.
–Abstr.: *Trans. Accad. Lincei*, 2: 185–186? Describes *Felsinotherium Gastaldi*, n.sp., and coins the new combination *F. Serresii*.
- Zigno, Achille de
1878c. Sui sirenoidi fossili dell'Italia.
Bol. Com. Geol. Ital., 9: 105–109.
- x Zigno, Achille de
1880a. Nuove osservazioni sull'*Halitherium veronense* Z.
Mem. Ist. Veneto Sci. Lett. Arti, 21: 291–298. Pl. 4.
–Supplements his earlier (1875a) description of the species with a description of a mandible and scapula.
- Zigno, Achille de
1880b. Lettura e sunto delle nuove osservazioni sull'*Halitherium veronense*.
Atti Ist. Veneto Sci., (5)6: 393–394.
- Zigno, Achille de
1882. Nuove aggiunte alla fauna eocena del Veneto.
Mem. Ist. Veneto Sci. Lett. Arti, 21: 775–790. Pl. 15.
–Abstr.: *Atti Ist. Veneto Sci.*, (5)7: 508, 1881?
- Zigno, Achille de
1887. Quelques observations sur les siréniens fossiles.
Bull. Soc. Géol. France, (3)15: 728–732. Pl. 27.
- Zimmermann, Eberhard August Wilhelm von
1777. *Specimen zoologiae geographicae, quadrupedum domicilia et migrationes sistens. Dedit, tabulamque mundi zoographicam adjunxit.*
Lugduni Batavorum [= Leiden], Theodor Haak et Socios, xxiv + 685. 1 map.
–Sirs., 263–266.
- x Zimmermann, Eberhard August Wilhelm von
1778. *Geographische Geschichte des Menschen, und der allgemein verbreiteten vierfüssigen Thiere, nebst einer hieher gehörigen zoologischen Weltcharte.... Erster Band.*
Leipzig, Weygandschen Buchhandlung, 1–308. 1 map.
–Allen 350. The entire work comprises 3 vols. (1778–1783); for vol. 2 see Zimmermann (1780). Describes the distribution of "*Trichechus Manatus*" (which includes the dugong and both American and African manatees, but is distinguished from Steller's sea cow) (253–254).
- x Zimmermann, Eberhard August Wilhelm von
1780. *Geographische Geschichte des Menschen, und der vierfüssigen Thiere. Zweiter Band. Enthält ein vollständiges Verzeichniss aller bekannten Quadrupeden.*
Leipzig, Weygandschen Buchhandlung, 1–432.
–Allen 350 (cont.). Distinguishes "*Trichechus (Rosmarus)*" (= the walrus) and "*Trichechus (Dugung)*" (425), "*Manati gigas*" (new name, = *Hydrodamalis gigas*; 426) and "*Thrichechus (Manatus)*" (426–427). Does not consistently use binomial nomenclature. The matter pertaining to *M. gigas* is reprinted in full in E. Mohr (1950: 184). See also J.A. Allen (1902).
- x Zipperlen, A.
1889. Ein Lamantin, *Manatus americanus*.
Zool. Garten, 30: 25–26.
–Briefly describes the external and internal morphology of a manatee from Indian River, Florida, that lived for 10 days at the Cincinnati Zoo.

Zittel, Karl Alfred von

1893. *Handbuch der Palaeontologie. I. Abt. Palaeozoologie. IV. Band. Vertebrata (Mammalia)*.
Munich & Leipzig, R. Oldenbourg, xi + 799. 590
figs.

–French transl., Paris, O. Doin, 1894. *Sirs.*, 6–30,
62, 187–202.

Zittel, Karl Alfred von; & Schlosser, Max

1911. *Grundzüge der Paläontologie (Paläozoologie)*.
308–598. Figs. 457–749.
–*Sirs.*, 540.

Zittel, Karl Alfred von; & Schlosser, Max

1923. *Grundzüge der Paläontologie (Paläozoologie)...*
II. Abteilung. Vertebrata. Ed. 4.

Munich & Berlin, R. Oldenbourg, v + 162, figs.
1–259; 209–689, figs. 317–800.

–*Sirs.*, 632, 636, 670 (section revised by Schlosser).

Zoodsma, Barbara Jo: SEE Baugh et al., 1989.

xD Zuidema, Henry P.

1970. Fossil sea mammal.

Sea Frontiers, 16(1): 20–24. 5 figs. Jan.–Feb.
1970.

–Repr.: *Bull. So. Calif. Pal. Soc.*, 2(4): 2–4. Pop.
acc. of the Stanford (California) specimen of
Paleoparadoxia and related forms. The figs.
include reconstructions by C.A. Repenning.

Zweers, A.: SEE De Jong et al.

Appendix 1

Serial Publications Devoted to Sirenia

Dugong Newsletter. One number only; 1979. 9 pp.

Created as a result of a workshop on dugong conservation held at James Cook University, Townsville, Australia, in May 1979. Edited by Helene Marsh, this newsletter was intended to appear two or three times a year, but was not continued.

Sirennews. *Newsletter of the IUCN/SSC Sirenia Specialist Group*.

Published twice a year (nominally in April and October) under the auspices of the Species Survival Commission of the International Union for the Conservation of Nature and Natural Resources (IUCN); edited by Daryl P. Domning. The following list of the issues to date gives date of mailing, number of pages, and number of copies printed (where known). The first issue was printed and mailed at IUCN headquarters in Gland, Switzerland; the remainder were printed and mailed in Washington, D.C., USA. Since October 1984, extracts from *Sirennews* have appeared irregularly in the Species Survival Commission's *Newsletter* (renamed *Species* in 1986). *Sirennews* is indexed in the *Zoological Record*, and bears ISSN no. 1017-3439.

- No. 1. April 1984. 23 pp.
- No. 2. October 9, 1984. 16 pp.
- No. 3. April 20, 1985. 17 pp. 165 copies.
- No. 4. October 12, 1985. 20 pp. 170 copies.
- No. 5. April 14, 1986. 14 pp. 170 copies.
- No. 6. October 16, 1986. 18 pp. 200 copies.
- No. 7. April 10, 1987. 16 pp. 200 copies.
- No. 8. October 21, 1987. 13 pp. 200 copies.
- No. 9. April 21, 1988. 15 pp. 200 copies.
- No. 10. October 28, 1988. 13 pp. 200 copies.
- No. 11. April 27, 1989. 14 pp. 160 copies.
- No. 12. October 13, 1989. 13 pp. 175 copies.
- No. 13. April 12, 1990. 12 pp. 160 copies.
- No. 14. October 31, 1990. 18 pp. 160 copies.
- No. 15. April 19, 1991. 20 pp. 170 copies.
- No. 16. October 30, 1991. 20 pp. 170 copies.
- No. 17. April 27, 1992. 15 pp. 180 copies.
- No. 18. November 3, 1992. 23 pp. 225 copies.
- No. 19. April 13, 1993. 10 pp. 200 copies.
- No. 20. November 2, 1993. 22 pp. 200 copies.
- No. 21. April 26, 1994. 16 pp. 250 copies.
- No. 22. October 26, 1994. 16 pp. 250 copies.

Save the Manatee Club News.

Published several times a year by the Save the Manatee Club, Maitland, Florida, initially under the auspices of the Florida Department of Natural Resources and the Florida Audubon Society. Most issues are not numbered; some are not dated. Beginning with the July 1988 issue, the title was changed to *Save the Manatee: Save the Manatee Club Newsletter*. This became simply *Save the Manatee Club Newsletter* in February

1993. The June 1983 issue was accompanied by a one-page "Manatee Technical Bulletin No. 1" that reported the death of a manatee from a boat collision; apparently no more of this series were published.

[one previous issue in 1983?]
 March 1983. 4 pp. ("Issue No. 2")
 June 1983. 4 pp. ("Issue No. 3")
 September 1983. 4 pp. ("Issue No. 4")
 March 1984. 8 pp. ("Issue No. 1")
 October 1984. 4 pp.
 [April 1985.] 4pp.
 July 1985. 4 pp.
 October 1985. 4 pp.
 December [1985]. 4 pp.
 March 1986. 4 pp.
 May 1986. 4 pp.
 August 1986. 4 pp.
 October 1986. 4 pp.
 January 1987. 4 pp.
 March 1987. 4 pp.
 June 1987. 4 pp.
 August 1987. 4 pp.
 November 1987. 8 pp.
 February 1988. 4 pp.
 May 1988. 6 pp.
 July 1988. 4 pp.
 November 1988. 4 pp.
 January 1989. 4 pp.
 March 1989. 4 pp.

Summer 1989. 6 pp.
 September 1989. 6 pp.
 November 1989. 6 pp.
 January 1990. 6 pp.
 Spring 1990. 8 pp.
 Summer 1990. 8 pp.
 September 1990. 8 pp.
 November 1990. 8 pp.
 January 1991. 8 pp.
 March 1991. 8 pp.
 July 1991. 8 pp.
 September 1991. 8 pp.
 November 1991. 8 pp.
 January 1992. 8 pp.
 March 1992. 8 pp.
 August/September 1992. 8 pp.
 November 1992. 8 pp.
 February 1993. 8 pp.
 May 1993. 8 pp.
 July 1993. 8 pp.
 September 1993. 8 pp.
 November 1993. 8 pp.
 February 1994. 8 pp.
 May 1994. 8 pp.
 September 1994. 8 pp.

Manatee Population Research Reports.

Prepared by the Florida Cooperative Fish and Wildlife Research Unit, University of Florida, for the U.S. Fish and Wildlife Service under Cooperative Agreement No. 14-16-0009-1544. Copies of some reports available from the Fish and Wildlife Reference Service, 5430 Grosvenor Lane, Suite 110, Bethesda, Maryland 20814. The first nine of these reports all bear the designations "Research Work Order No. 2" and "Technical Report No. 8"; they constitute successive parts of the latter, and beginning with No. 5 they are numbered accordingly, e.g., "Technical Report No. 8-5." No. 10 was prepared under "Research Work Order No. 88." The reports in this series are listed in this bibliography as follows:

- No. 1. Eberhardt, L.L., 1982.
- No. 2. Packard & Mulholland, 1983.
- No. 3. Packard, Summers, & Barnes, 1983.
- No. 4. Packard & Nichols, 1983.
- No. 5. Packard, Frohlich, Reynolds, & Wilcox, 1984.
- No. 6. Packard, J.M., 1984b.
- No. 7. Packard, J.M., 1985a.
- No. 8. Packard, Frohlich, Reynolds, & Wilcox, 1985.
- No. 9. Packard, J.M., 1985b.
- No. 10. O'Shea et al., 1992.

Site-Specific Reduction of Manatee Boat/Barge Mortality Research Reports.

Prepared by the Florida Cooperative Fish and Wildlife Research Unit, University of Florida, for the U.S. Fish and Wildlife Service under Cooperative Agreement No.

14-16-0004-81-923. Copies available from the Endangered Species Field Office, U.S. Fish and Wildlife Service, 2747 Art Museum Drive, Jacksonville, Florida 32207. The four reports in this series, all published in October 1983, are listed in this bibliography as follows:

- No. 1. Kinnaird & Valade, 1983.
- No. 2. Kinnaird, M.F., 1983a.
- No. 3. Kinnaird, M.F., 1983b
- No. 4. Kinnaird, M.F., 1983c.

Florida Conservation News.

Formerly published by the Florida Department of Natural Resources, Tallahassee. Two issues were largely devoted to sirenians:

Vol. 15, No. 2 (Nov. 1979): Contains the articles listed in this bibliography as Oberheu & Prather, 1979; Willis, C., 1979; Asper, E.D., 1979; and Anon., 1979b; together with proclamations of "Manatee Awareness Month" (November) by Elton J. Gissendanner (p. 2) and Governor Bob Graham (p. 20), and several unsigned short notices relating to manatee conservation in Florida.

Vol. 15, No. 6 (Mar. 1980): Contains the articles listed in this bibliography as Odell & Reynolds, 1980; Prather, R., 1980; Sunseri, S.M., 1980a, 1980b; Baker, G.S., 1980; Stewart, V.N., 1980; and Hoenstine, R., 1980; together with reproductions of children's letters about manatees (p. 20).

Manatee Monitor.

Published by the Florida Department of Natural Resources Office of Education and Information, Tallahassee. Three known issues (April 1979, Fall 1979, Autumn 1980), each consisting of a four-page leaflet.

Peixe-Boi.

Published by the Centro Nacional de Conservação e Manejo de Sirênios—Centro Peixe-Boi/IBAMA, João Pessoa, Paraíba, Brazil. Edited by Danielle Paludo. ISSN no. 0103-9431.

Ano 1, No. 1 (1992): Contains the articles listed in this bibliography as Grubel da Silva, Paludo et al., 1992; Colares et al., 1992; Colares & Colares, 1992; Grubel da Silva, Soavinski et al., 1992; Pinto de Lima et al., 1992a,b.

Appendix 2

Some Additional Sources for the History of Sirenology and Sirenian Conservation

Apart from the information found in the primary literature itself, a good many scraps of data bearing on government agencies, individual researchers, and their work can be gleaned from publications of a more ephemeral sort. These include notices and reports of research in progress and other sirenian-related news scattered through the sirenian newsletters (see Appendix 1, above) and other publications such as the following:

Administration of the Marine Mammal Protection Act of 1972 (published annually by the U.S. Fish and Wildlife Service, Dept. of the Interior, Washington, D.C., 1973–)

Annual Report of the Marine Mammal Commission (published annually, Washington, D.C., 1974– ; available as NTIS documents)

Federal Register (published by the U.S. National Archives, 1936–)

IUCN Bulletin (published by the International Union for Conservation of Nature and Natural Resources, Gland, Switzerland, 1952–)

Species Survival Commission Newsletter (published by the International Union for Conservation of Nature and Natural Resources, Oxford, England; new series, 1982– ; renamed *Species* beginning with No. 6, Jan. 1986)

The Marine Mammal Newsletter (published by the U.S. International Biological Program, Washington, D.C., 1971–1974?)

Marine Mammal News (published by Nautilus Press, Inc., Washington, D.C., as successor to the above, 1975–)

Marine Mammal Information (published at Oregon State University, 1977–1986)

Society of Vertebrate Paleontology News Bulletin (published by the Society, 1941–)

A related topic is that of legislation enacted in various countries for the protection of manatees and dugongs. I have not attempted to catalog such legislation, which is to be found in the lawbooks and government publications of each country. Some such publications that have come to my attention are the following:

United States *Federal Register* (see above)

“The recognition of Aboriginal customary laws.” *Law Reform Commission Report*, No. 31. Canberra, Australian Government Publishing Service, 1986: 3 vols. (especially vol. 2, paragraphs 884, 891, 950, 958, 981–982).

Likewise, official and commercial publications of some countries contain statistical and/or historical information about the commercial exploitation of sirenians. Such references as I have found regarding exploitation of manatees in Brazil are cited in Domning (1982a). Data on the former dugong fishery in Queensland, Australia, can be found in the *Annual Reports* of the Queensland Marine Department (later Department of Harbours and Marine), 1880 and following years, and the *Queensland Official Yearbooks*.

For lists of sirenians in captivity in various zoos and aquaria as of a given date, see *List of the vertebrated animals now or lately living in the gardens of the Zoological Society of London* (London, various editions) and the *International Zoo Yearbook*.

Appendix 3

Coins and Postage Stamps Depicting Sirenians

The following are the only coins of which I am aware that depict sirenians. The catalog numbers at the left are from the *Standard Catalog of World Coins* (Krause and Mishler).

COSTA RICA

KM 201, 100 colones (silver): manatee. 1974.
201a

GUYANA

KM 37 1 cent (bronze): manatee. 1976–1980.

The following information on stamps is taken from *Scott's Postage Stamp Catalog*, various editions. Scott catalog numbers appear at the left, followed by denomination, color, subject, and date of issue.

AFARS AND ISSAS

C82 60 fr brown & multicolored: dugong. Mar. 16, 1973.

ANGUILLA

707 \$5 multicolored (on souvenir sheet): manatee. Dec. 22, 1986.

ANTIGUA-BARBUDA

1236 \$4 green & brown: manatee. Oct. 19, 1989.

BRAZIL

1614 12 cr multicolored: manatee (said to be *Trichechus inunguis*, but clearly showing nails!). Jun. 5, 1979.

CAMEROON

366 8 fr dark blue, red, & green: manatee. 1962.

371 30 fr black, orange, & blue: manatee. 1962.

COSTA RICA

C359 40 c emerald & slate blue: manatee. May 1963.

CUBA

2461 35 c lavender: manatee. Dec. 14, 1981.

DOMINICAN REPUBLIC

C316 25 c multicolored: manatee. Aug. 30, 1980.

GHANA

624 60 p multicolored: manatee. Jun. 22, 1977.

625d 80 p multicolored (on souvenir sheet of 4): manatee.
Jun. 22, 1977.

GUYANA

253 8 c multicolored: manatee coin. May 26, 1977.

267 8 c multicolored: manatee. Feb. 15, 1978.

INDIA

1349 6.50 r blue & brown: dugong. Mar. 4, 1991.

IVORY COAST

218 5 fr yellow green, slate green, & brown: manatee. Oct. 17, 1964.

530 75 fr multicolored: manatee. Nov. 3, 1979.

JAMAICA

525 60 c multicolored?: manatee. Feb. 22, 1982.

KENYA

93 5 sh multicolored: dugong. Sep. 26, 1977. (See also Tanzania and Uganda.)

93a Same, on souvenir sheet.

MALI

317 100 fr multicolored: manatee. Apr. 23, 1979.

MAURITANIA

385 14 um multicolored: manatee. Feb. 28, 1978.

MEXICO

1534 300 p blue & black: manatee. 1988.

MOZAMBIQUE

995 1 mt green & black: dugong. Aug. 1986.

THE NETHERLANDS

B639 65+35 c green: manatees (*Trichechus manatus*). 1988.

NIGER

107 50 c green & dark slate green: manatee. Jan. 29, 1962.

108 10 fr red brown & dark green: manatee. Jan. 29, 1962.

PALAU

20 \$2 blue & green: dugong. 1984.

103a 14 c blue & gray: dugong. May 22, 1986.

PANAMA

670 3 c (B/0.03): manatee. Dec. 5, 1984.

PAPUA NEW GUINEA

525 7 t blue & brown: dugong. Oct. 29, 1980.

RYUKYU ISLANDS

142 3 c blue, yellow green, black, & red: dugong. Apr. 20, 1966.

ST. VINCENT

1233 Miniature sheet; includes 50 c multicolored: manatee. Aug. 31, 1989.

SRI LANKA

659 2 r brown & green: dugongs. Feb. 22, 1983.

TANZANIA

86 5 sh multicolored: dugong (same design as Kenya 93). Sep. 26, 1977.

86a Same, on souvenir sheet.

TOGO

- 1241 45 fr: manatee. Oct. 1, 1984.
1242 70 fr: same.
1243 90 fr: same.
1244 105 fr: same (1241-1244 bear 4 different designs).
1444 60 fr multicolored: same. Dec. 15, 1987.
1445 75 fr: same.
1446 80 fr: same.
1447 100 fr: same (1444-1447 bear same 4 designs as
1241-1244).
C320 200 fr multicolored: manatee. Jun. 13, 1977.
C320a Same, on souvenir sheet.

UGANDA

- 180 5 sh multicolored: dugong (same design as Kenya 93).
Sep. 26, 1977.
180a Same, on souvenir sheet.

VANUATU

- 470 5 v multicolored: dugongs. Feb. 29, 1988.
471 10 v: same.
472 20 v: same.
473 45 v: same (470-473 bear 4 different designs).

Appendix 4

Classification and Synonymy of the Sirenia and Desmostylia

The following compilation encapsulates the nomenclatural history of the Sirenia and Desmostylia as comprehensively as I have been able to trace it. Included are all known formal names of taxa and their synonyms and variant combinations, with abbreviated citations of the references where these first appeared and their dates of publication; statements of the designated or inferred types of these taxa and their provenances; and relevant comments on the nomenclatural status of these names. Instances of the use of names or combinations subsequent to their original publication are, however, not listed. Of course, the choices of which taxa to recognize as valid and their proper arrangement reflect my own current views. This arrangement is outlined immediately hereafter to aid in finding taxa in this section. (Note that not all taxa in this summary list are necessarily valid; several are probable synonyms but have not been formally synonymized.) For a quick-reference summary of the names now in use for the Recent species of sirenians, see Appendix 5.

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Institutional Abbreviations

AMNH	American Museum of Natural History, New York, New York
ANSP	Academy of Natural Sciences, Philadelphia, Pennsylvania
BCPM	British Columbia Provincial Museum, Vancouver, Canada
BMNH	Natural History Museum, London, England
BSP	Bayerische Staatssammlung für Paläontologie und Historische Geologie, Munich, Germany
CASG	Department of Geology, California Academy of Sciences, San Francisco, California
CGM	Cairo Geological Museum, Cairo, Egypt
ChM	Charleston Museum, Charleston, South Carolina
DPUH	Paleontological collection, Museo Felipe Poey, Universidad de La Habana, Cuba
FCM	Facultad de Ciencias Marinas, Universidad Autónoma de Baja California, Ensenada, Baja California, Mexico

FIV	Palaeovertebrate Collection, Geological Institute, Budapest, Hungary
HLMD	Hessisches Landesmuseum, Darmstadt, Germany
IGM	Instituto de Geologia, Universidad Nacional Autónoma de México, Mexico City
LUVF	Laboratory of Vertebrate Paleontology, Geology Department, Lucknow University, India
MCZ	Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts
MGP	Istituto di Geologia, Paleontologia e Geologia Applicata dell'Università, Padova, Italy
MNHB	Musée Royal d'Histoire Naturelle de Belgique, Brussels, Belgium
MNHN	Muséum National d'Histoire Naturelle, Paris, France
MNRJ	Museu Nacional, Rio de Janeiro, Brazil
NHMB	Naturhistorisches Museum, Basel, Switzerland
NSMT	National Science Museum, Tokyo, Japan
PIUW	Paläontologisches Institut der Universität Wien, Vienna, Austria
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany
TIU	Tohoku Imperial University, Sendai, Japan
UCMP	University of California Museum of Paleontology, Berkeley, California
UF/FGS	Florida Geological Survey collection, Florida Museum of Natural History, University of Florida, Gainesville, Florida
UHR	Hokkaido University, Sapporo, Japan
USNM	National Museum of Natural History, Smithsonian Institution, Washington, D.C. (collections of the former United States National Museum)
YPM	Yale Peabody Museum, New Haven, Connecticut

Class MAMMALIA Linnaeus, 1758

Mirorder TETHYTHERIA McKenna, 1975

Order SIRENIA Illiger, 1811

SIRENIA Illiger, 1811, *Prodromus Syst. Mamm. Av.*: 140. [Proposed as a family; ?first raised to ordinal rank by Goldfuss, 1820, *Handb. Zool.* 2: 336.]

DIOPIA Rafinesque, 1815, *Anal. Nat.*: 60. [Proposed as a family.]

[CETACEAE] HERBIVORAE Gray, 1821, *London Med. Reposit.* 15: 309. [Originally termed "Cétacés herbivores" by Cuvier, 1817, *Règne Animal*: 273.]

(Tribe) ANTHROPOCEPHALA, (Nation) MANATIDES Billberg, 1827, *Syn. Faunae Scand.* 1(1): Tab. A, dorso 1 and p. 32. [Both taxa are equivalent to the Sirenia.]

MANATINA Bonaparte, 1837, *Syn. Vert. Syst.*: 7. [Proposed as a subfamily. Reference not seen.]

SIRENIFORMIA Burmeister, 1837, *Handb. Naturgesch.*: 792. [Proposed as a family.]

HALOBIOIDEA Ameghino, 1889, *Actas Acad. Nac. Cienc. Córdoba* 6: 652, May 20, 1889. [Rank not specified. Comprised the Sirenia and the hypothetical coordinate taxon ProSirenia.]

TRICHECHIFORMES Hay, 1923, *Pan-Amer. Geologist* 39: 109, Mar. 1923. [Proposed as a suborder of the Sirenia coordinate with the Desmostyliformes, which latter were raised to ordinal rank by Reinhart (1953), leaving the Trichechiformes coextensive with the Sirenia.]

Family PRORASTOMIDAE Cope, 1889

PRORASTOMIDAE Cope, 1889, *Amer. Nat.* 23: 876.

PRORASTOMATIDAE Flower and Lydekker, 1891, *Introd. Study Mamm. Living & Extinct*: 224. [Unjustified emendation.]

PRORASTOMINAE Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 5, July 24, 1959. [Proposed as subfamily.]

Type Genus: *Prorastomus* Owen.

Prorastomus Owen, 1855

Prorastomus Owen, 1855, *Quart. J. Geol. Soc. London* 11: 543. [Type, by monotypy: *P. sirenooides* Owen.]

Prorastoma Lydekker, 1892, *Proc. Zool. Soc. London* 1892(1): 83, June 1892. [Unjustified emendation of *Prorastomus* Owen.]

Prorastomus sirenooides Owen, 1855

Prorastomus sirenooides Owen, 1855, *Quart. J. Geol. Soc. London* 11: 543.

Holotype: BMNH 44897, skull, mandible, and atlas.

Type Locality: Bed of Quashies River near Freemans Hall, southern Trelawney Parish, west-central Jamaica.

Formation: Stettin Member, Chapelton Formation, Yellow Limestone Group (Robinson, 1988, *Jour. Geol. Soc. Jamaica*, 24: 49–67).

Age: Late Early Eocene.

Family PROTOSIRENIDAE Sickenberg, 1934

PROTOSIRENIDAE Sickenberg, 1934, *Mém. Mus. Roy. Hist. Nat. Belgique* 63: 193, Dec. 31, 1934.

PROTOSIRENINAE Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 6, July 24, 1959. [Proposed as subfamily.]

Type Genus: *Protosiren* Abel.

Protosiren Abel, 1907

Protosiren Abel, 1904, *Abh. K.-K. Geol. Reichsanst.* 19(2): 214. [Nomen nudum.]

Protosiren Abel, 1907, *Meereskunde* 1(4): 29. [Type, by monotypy: *P. fraasi* Abel.]

Protosiren fraasi Abel, 1907

Protosiren fraasi Abel, 1904, *Abh. K.-K. Geol. Reichsanst.* 19(2): 214. [Nomen nudum.]

Protosiren fraasi Abel, 1907, *Meereskunde* 1(4): 29.

Eosiren fraasi (Abel) Schlosser in von Zittel and Schlosser, 1923, *Grundzüge der Pal.*, ed. 4, Abt. 2: 634.

Prototherium fraasi Fuchs, 1973, *Studia Univ. Babeş-Bolyai, Ser. Geol.-Min.*, 18(2): 75. [Lapsus for *Protosiren fraasi*.]

Holotype: CGM C.10171, skull lacking mandible, previously described and tentatively referred to *Eotherium aegyptiacum* by Andrews (1906). [Abel's earlier designation (*Neues Jb. Min. Geol. Pal.* 1906(2): 50–51) of a different specimen as holotype did not suffice to validate the name and is therefore also invalid. Abel's 1907 work was the first publication of the name in connection with a valid indication, and that indication referred only to CGM C.10171, making that specimen the type by default, even though Abel did not explicitly refer to it as the type.]

Type Locality: Mokattam Hills, Cairo, Egypt.

Formation: Probably the upper part of the Lower Building Stone Member of the Mokattam Formation (Gingerich, 1992).

Age: Middle Eocene (probably middle Lutetian).

?*Protosiren minima* (Desmarest, 1822) Hooijer, 1952

"Espèce voisine de l'hippopotame et plus petite que le cochon." Cuvier, 1821, *Rech. Oss. Fossiles*, ed. 2, vol. 1: 333, pl. 7, figs. 12–20. [This is the form called "Hippopotame douteux" (= *Hippopotamus dubius*) by various authors.]

Hippopotamus minimus Desmarest, 1822, *Mammalogie*: 388.

H[ippopotamus]. dubius Cuvier, 1824, *Rech. Oss. Fossiles*, ed. 2, vol. 5(2): 527.

Halicore Cuvierii de Christol, 1832 [partim], *Ann. Sci. Indust* 2(8): 244.

Halicore Cuvierii de Christol, 1834 [partim], *Ann. Sci. Nat. Zool.* (2)2: 274. [Published Mar. 25, 1835, *fide* de Blainville, 1844: 95.]

Halianassa Studeri von Meyer, 1838 [partim], *Neues Jb. Min. Geogn. Geol. Pet.* 1838: 667, Sep. 1838. [Names placed on the Official Indexes of Rejected and Invalid Generic and Specific Names by ICZN Opinion 1535, *Bull. Zool. Nomencl.* 46(1): 83, March 1989.]

Halitherium dubium (Cuvier) Kaup, sensu Gervais, 1852, *Zool. Pal. Franç.*, 1: 145.

?*Protosiren dubia* (Cuvier) Sickenberg, 1934, *Mém. Mus. R. Hist. Nat. Belgique* 63: 190, Dec. 31, 1934.

?*Protosiren minima* (Desmarest) Hooijer, 1952, *Osiris* 10: 113.

Syntypes: Three molars (see Sickenberg, 1934b: fig. 36).

Type Locality: Blaye, Gironde, France.

Formation: Calcaire du Blaye.

Age: Middle Eocene (Lutetian).

Remarks: Inadequately known; status and affinities uncertain.

Family TRICHECHIDAE Gill, 1872 (1821)

MANATIDAE Gray, 1821, *London Med. Reposit.* 15: 309.

HALICOREAE Brandt, 1833 [partim], *Mém. Acad. Sci. St.-Petersbourg* (6)2: 114, Nov. 1833. [Proposed as tribe.]

HALICOREA Brandt, 1846 [partim], *Mém. Acad. Sci. St.-Petersbourg* (6)5: 132. [Proposed as tribe or family.]

MANATIDA Brandt, 1868, *Mém. Acad. Sci. St.-Petersbourg* (7)12(1): 343. [Proposed as family.]

TRICHECHIDAE Gill, 1872, *Smithson. Misc. Coll.* 11(1)(230): 14, Nov. 1872.

MANATOIDEA Gill, 1872, *Smithson. Misc. Coll.* 11(1)(230): 14, Nov. 1872. [Proposed as superfamily.]

TRICHECHOIDEA Gill, 1872, *Smithson. Misc. Coll.* 11(1)(230): 14, Nov. 1872 (*non* Giebel, 1847: 221). [Proposed as superfamily.]

Type Genus: *Trichechus* Linnaeus (= *Manatus* Brünnich).

Subfamily MIOSIRENINAE Abel, 1919

MIOSIRENINAE Abel, 1919, *Die Stämme der Wirbelthiere*: 835.

Type Genus: *Miosiren* Dollo.

Anomotherium Siegfried, 1965

Anomotherium Siegfried, 1965, *Palaeontographica* 124A: 118, Mar. 1965. [Type, by monotypy: *A. langewieschei* Siegfried.]

Anomotherium langewieschei Siegfried, 1965

Anomotherium langewieschei Siegfried, 1965, *Palaeontographica* 124A: 119, Mar. 1965.

Holotype: Partial skull and skeleton in Kreisheimatmuseum, Bünde, Westfalen, Germany; some teeth and fragments of same individual in Geol.-Pal. Inst., Univ. Münster (No. A575).

Type Locality: Doberg bei Bünde, Westfalen, Germany.

Formation: Probably Bed 36, Schichtengruppe E of Upper Doberg Beds.

Age: Basal Late Oligocene (upper Chattian).

Miosiren Dollo, 1889

Miosiren Dollo, 1889, *Bull. (Proc.-verb.) Soc. Belge Géol. Pal. Hydrol.* 3: 420. [Type, by monotypy: *M. kocki* Dollo.]

Miosiren kocki Dollo, 1889

Miosiren Kocki Dollo, 1889, *Bull. (Proc.-verb.) Soc. Belge Géol. Pal. Hydrol.* 3: 420.

Holotype: MNHB HE.M.136.A (= no. 1682), skull and partial skeleton of adult.

Type Locality: Brickworks of Charles de Kock, "in den

Hoek" near Boom, Belgium.

Formation: Sands of Edeghem.

Age: Early Miocene (lower Burdigalian; NN.3) (Hooybergs, 1980, *IGCP Report* 6 [Project 124]: 106–118).

Miosiren canhami (Flower, 1874) Sickenberg, 1934

Halitherium Canhami Flower, 1874, *Quart. Jour. Geol. Soc. London* 30: 6.

Miosiren canhami (Flower) Sickenberg, 1934, *Mém. Mus. Roy. Hist. Nat. Belgique* 63: 333, Dec. 31, 1934.

Holotype: Partial skull (Ipswich Museum).

Type Locality: Foxhall, near Waldringfield, Suffolk, England.

Formation: Red Crag.

Age: Reworked into the Red Crag from earlier, possibly Miocene, deposits.

Remarks: Possibly synonymous with *M. kocki*.

Subfamily TRICHECHINAE (Gill, 1872 [1821]) Domning, 1994

TRICHECHINAE Domning, 1994, *Proc. San Diego Soc. Nat. Hist.* 29: 186. May 1, 1994.

Type Genus: *Trichechus* Linnaeus (= *Manatus* Brünnich).

Potamosiren Reinhart, 1951

Potamosiren Reinhart, 1951, *Univ. Calif. Publ., Bull. Dept. Geol. Sci.* 28(9): 203, Feb. 16, 1951. [Type, by monotypy: *P. magdalenensis* Reinhart.]

Potamosiren magdalenensis Reinhart, 1951

Potamosiren magdalenensis Reinhart, 1951, *Univ. Calif. Publ., Bull. Dept. Geol. Sci.* 28(9): 204, Feb. 16, 1951.

Metaxytherium ortegense Kellogg, 1966, *U.S. Natl. Mus. Bull.* 247(3): 93. [Holotype: USNM 10870, left maxillary fragment with M¹⁻³. Type locality: Ortega, north of mouth of Río Saldana, Departamento Tolima, Colombia; Honda Group, Middle or Late Miocene.]

Felsinotherium ortegense Kellogg, 1966, *U.S. Natl. Mus. Bull.* 247(3): pl. 36. [Lapsus for *Metaxytherium ortegense*.]

Ribodon magdalenensis (Reinhart) Marshall, Hoffstetter, and Pascual, 1983, *Paleovertebrata, Mém. Extraord.*, 1983: 52.

Holotype: UCMP 39471, left mandible and right M³.

Type Locality: UCMP loc. V4533, near Cerro Gordo, Villavieja, Departamento del Huila, Colombia.

Formation: El Libano sands and clays, Honda Group, La Venta fauna.

Age: Middle Miocene (Friasian) (Marshall et al., 1977, *Science* 195: 1325–1328).

Ribodon Ameghino, 1883

Ribodon Ameghino, 1883, *Bol. Acad. Nac. Cienc. Córdoba* 5(1): 112. [Type, by monotypy: *R. limbatus* Ameghino.]

Ribodon limbatus Ameghino, 1883

Ribodon limbato Ameghino, 1883, *Bol. Acad. Nac. Cienc. Córdoba* 5(1): 112. [Incorrect original spelling.]

Ribodon limbatus Ameghino, 1885, *Bol. Acad. Nac. Cienc. Córdoba* 8: 100. [Justified emendation.]

Holotype: Upper molar.

Type Locality: Rio Paraná, Entre Rios, Argentina.

Formation: "Mesopotamian" beds.

Age: Late Miocene-Early Pliocene (Huayquerian-Montehermosan) (Pascual and Odreman Rivas, 1971, *Ameghiniana* 8(3-4): 372–412).

Trichechus Linnaeus, 1758

Trichechus Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1: 34. [Type, by monotypy: *T. manatus* Linnaeus. Placed on Official List of Generic Names by ICZN Opinion 112, *Smithson. Misc. Coll.* 73(6): 19, 1929.]

Manatus Brünnich, 1772, *Zoologiae Fundamenta*: 34, 38. [Type, according to Palmer (1904: 398): *Trichechus manatus* Linnaeus. Suspension of Rules in favor of *Manatus* Brünnich declined by ICZN Opinion 112, *loc. cit.*; name placed on Official Index of rejected names by Direction 13.]

Oxystomus Fischer von Waldheim, 1803, *Das Nationalmuseum Naturgesch. zu Paris* 2: 353. [Type, by monotypy: *Trichechus manatus* Linnaeus.]

Nemoderms Rafinesque, 1815, *Anal. Nat.*: 60. [Nomen nudum.]

Halipaedisca Gistel, 1848, *Naturgesch. Thierreichs f. höhere Schulen*: 83. [New name for *Manatus* Brünnich, 1772. Type, by monotypy: *Manatus americanus*.]

Trichechus inunguis (Natterer in von Pelzeln, 1883) Trouessart, 1905

Phoca manatus (Linnaeus) Brisson, 1762 [partim], *Regnum Animale*: 164.

Manatus exunguis Natterer in Diesing, 1839, *Ann. Wiener Mus. Naturgesch.* 2: 230. [Name placed on Official Index of Rejected and Invalid Names by ICZN Opinion 1320, *Bull. Zool. Nomencl.* 42(2): 175–176, June 1985, with the Name Number 1149.]

Manatus inunguis Natterer in von Pelzeln, 1883, *Verh. Zool.-Bot. Ges. Wien* 33, *Beiheft*: 89. [Junior objective synonym of *M. exunguis*. Placed on Official List of Specific Names by ICZN Opinion 1320, *Bull. Zool. Nomencl.* 42(2): 175–176, June 1985, with the Name Number 2966.]

Trichechus inunguis (Natterer) Trouessart, 1905, *Cat. Mamm., Suppl.*: 749.

Trichechus exunguis (Natterer) Stunkard, 1929, *Bull. Amer. Mus. Nat. Hist.* 58(6): 254.

Syntypes: Five specimens in the Nathist. Mus., Vienna, were destroyed in 1848, *vide* v. Pelzeln (1883: 93) and Hartlaub (1886a: 103). However, at least one other skull collected by Natterer, and therefore presumably part of the basis of his original species concept, was sent to Rostock and described by Stannius (1845: 9ff.) and Hartlaub (1886a: 50, pl. 1, fig. 3). USNM 22438 may be a cast of this skull. Natterer also noted that the skeleton described and illustrated by G. Cuvier (1809) belonged to this species.

Type Locality: Borba, lower Rio Madeira, Amazonas, Brazil.

Age: Recent; no fossil record.

Trichechus manatus Linnaeus, 1758

Trichechus manatus Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1: 34.

Phoca manatus (Linnaeus) Brisson, 1762 [partim], *Regnum Animale*: 164.

Manati Trichecus Boddaert, 1785 [partim], *Elenchus Anim.* 1: 173. [Based on Pennant's "Broad-tailed Manati," *vide* J.A. Allen (1882). Type locality fixed by Hatt (1934) as "West Indies."]

Trichechus Manatus australis Gmelin, 1788 [partim], *C. Linné Syst. Nat.*, ed.

13, vol. 1: 60.

Manati Clusii Pennant, 1793, *Hist. Quad.*, ed. 3, 2: 298. [Based on Clusius's figure and description of a West Indian manatee.]

M[anatus]. australis Retzius, 1794 [partim], *K. Svensk. Vetenskapsakad. Handl.* (2)15: 291, Oct.–Dec. 1794.

Tr[ichechus]. antillarum Link, 1795, *Beytr. Naturgesch.* 1(2): 109. [Based on Buffon's "Grand Lamantin des Antilles." Type locality fixed by Hatt (1934) as "West Indies."]

Tr[ichechus]. americanus Link, 1795, *Beytr. Naturgesch.* 1(2): 109. [Based on Buffon's "Petit Lamantin de l'Amérique." Type locality fixed by Hatt (1934) as "West Indies."]

Manatus Clusii (Pennant) Bechstein, 1800, in *Thomas Pennant's Allgemeine Uebersicht der vierfüssigen Thiere* 2: 732.

Manatus Guyannensis Bechstein, 1800, in *Thomas Pennant's Allgemeine Uebersicht der vierfüssigen Thiere* 2: 732. [Based on Pennant's "Guiana Manati" = *T. manatus* Linnaeus.]

Manatus Oronocensis Bechstein, 1800, in *Thomas Pennant's Allgemeine Uebersicht der vierfüssigen Thiere* 2: 732. [Based on Pennant's "Oronoko Manati." Type locality fixed by Hatt (1934) as "West Indies."]

Trichechus Clusii (Pennant) Shaw, 1800, *Gen. Zool.* 1(1): 246. [Based on Clusius's figure and description of a West Indian manatee. Type locality fixed by Hatt (1934) as "West Indies."]

Trichechus Amazonius Shaw, 1800, *Gen. Zool.* 1(1): 246. [Based on Pennant's "Oronoko Manati" = Buffon's "Petit Lamantin de l'Amérique." Type locality fixed by Hatt (1934) as "West Indies."]

Manatus minor Daudin, 1802, *Hist. Nat.* of Buffon, Didot Edition, "Quadrupeds" 14: 194. [Based on Buffon's "Petit Lamantin de l'Amérique." Type locality fixed by Hatt (1934) as "West Indies." Reference not seen.]

Oxystomus manatus (Linnaeus) Fischer von Waldheim, 1803, *Das Nationalmuseum Naturgesch. zu Paris* 2: 353.

Manatus americanus (Link) Illiger, 1815, *Abh. Akad. Wiss. Berlin* 1804–1811: 110.

Manatus fluviatilis Illiger, 1815, *Abh. Akad. Wiss. Berlin* 1804–1811: 110. [Nomen nudum. Applied to the Antillean manatee by Olfers (1818); see Hershkovitz (1959).]

M[anatus]. fluviatilis Olfers, 1818, *Bemerk. Illiger's Ueberblick Säugeth.*: 235. [Based on Pennant's "Guiana Manati"; see Hershkovitz (1959). Reference not seen.]

Manatus latirostris Harlan, 1824, *J. Acad. Nat. Sci. Philadelphia* 3(2): 394, May 1824.

Manatus atlanticus Oken, 1838 [partim], *Allgem. Naturgesch.* 7(2), *Säugth.* 1: 1098. [Applied to both American and African manatees. Type locality fixed by Hatt (1934) as "West Indies."]

H[alipaedisca]. americanus [sic] (Link) Gistel, 1848, *Naturgesch. Thierreichs f. höhere Schulen*: 83.

Trichechus latirostris (Harlan) True, 1884, *Proc. U.S. Natl. Mus.* 7: 588, Nov. 29, 1884?

Manatus Koellikeri Kükenenthal, 1897, *Zool. Anz.* 20(523): 40, Feb. 1, 1897. [Type: none designated. Type locality: Suriname.]

Trichechus koellikeri (Kükenenthal) Trouessart, 1905, *Cat. Mamm., Suppl.*: 749.

Manatus manatus (Linnaeus) Holland, 1917, *Ann. Carnegie Mus.* 11(3-4): 356.

[Original author of combination not identified.]

Trichechus inunguis koellikeri (Kükenenthal) Derscheid, 1926, *Rev. Zool. Afr.* 14(2), *Bull. Cercle Zool. Congolais* 3(1-2): 27.

Trichechus manatus manatus Linnaeus, Hatt, 1934, *Bull. Amer. Mus. Nat. Hist.* 66(4): 538, Sep. 10, 1934. [Type: none designated. Type locality: West Indies.]

Trichechus manatus latirostris (Harlan) Hatt, 1934, *Bull. Amer. Mus. Nat. Hist.* 66(4): 538, Sep. 10, 1934. [Cotypes: ANSP 2497 and possibly 2422. Type locality: east coast of Florida.]

Trichechus manatus koellikeri (Kükenenthal) Kleinschmidt, 1982, *Braunsch. Naturk. Schr.* 1(3): 381, Oct. 1982.

Type: No types of the species have been formally designated.

Type Locality: Fixed by Thomas (1911) as "West Indies."

Age: Recent; also reported from the Pleistocene.

Trichechus manatus manatus Linnaeus, 1758

Trichechus manatus Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1: 34.

Manati Trichechus Boddaert, 1785 [partim], *Elenchus Anim.* 1: 173. [Based on Pennant's "Broad-tailed Manati," *fide* J.A. Allen (1882). Type locality fixed by Hatt (1934) as "West Indies."]

Manati Clusii Pennant, 1793, *Hist. Quad.*, ed. 3, 2: 298. [Based on Clusius's figure and description of a West Indian manatee.]

M[anatus]. australis Retzius, 1794 [partim], *K. Svensk. Vetenskapsakad. Handl.* (2)15: 291, Oct.–Dec. 1794.

Tr[ichechus]. antillarum Link, 1795, *Beytr. Naturgesch.* 1(2): 109. [Based on Buffon's "Grand Lamantin des Antilles." Type locality fixed by Hatt (1934) as "West Indies."]

Tr[ichechus]. americanus Link, 1795, *Beytr. Naturgesch.* 1(2): 109. [Based on Buffon's "Petit Lamantin de l'Amérique." Type locality fixed by Hatt (1934) as "West Indies."]

Manatus Clusii (Pennant) Bechstein, 1800, in *Thomas Pennant's Allgemeine Uebersicht der vierfüssigen Thiere* 2: 732.

Manatus Guyannensis Bechstein, 1800, in *Thomas Pennant's Allgemeine Uebersicht der vierfüssigen Thiere* 2: 732. [Based on Pennant's "Guiana Manati" = *T. manatus* Linnaeus.]

Manatus Oronocensis Bechstein, 1800, in *Thomas Pennant's Allgemeine Uebersicht der vierfüssigen Thiere* 2: 732. [Based on Pennant's "Oronoko Manati." Type locality fixed by Hatt (1934) as "West Indies."]

Trichechus Clusii (Pennant) Shaw, 1800, *Gen. Zool.* 1(1): 246. [Based on Clusius's figure and description of a West Indian manatee. Type locality fixed by Hatt (1934) as "West Indies."]

Trichechus Amazonius Shaw, 1800, *Gen. Zool.* 1(1): 246. [Based on Pennant's "Oronoko Manati" = Buffon's "Petit Lamantin de l'Amérique." Type locality fixed by Hatt (1934) as "West Indies."]

Manatus minor Daudin, 1802, *Hist. Nat.* of Buffon, Didot Edition, "Quadrupeds" 14: 194. [Based on Buffon's "Petit Lamantin de l'Amérique." Type locality fixed by Hatt (1934) as "West Indies." Reference not seen.]

Oxystomus manatus (Linnaeus) Fischer von Waldheim, 1803, *Das National Museum Naturgesch. zu Paris* 2: 353.

Manatus americanus (Link) Illiger, 1815, *Abh. Akad. Wiss. Berlin* 1804–1811: 110.

Manatus fluviatilis Illiger, 1815, *Abh. Akad. Wiss. Berlin* 1804–1811: 110. [Nomen nudum. Applied to the Antillean manatee by Olfers (1818); see Hershkovitz (1959).]

M[anatus]. fluviatilis Olfers, 1818, *Bemerk. Illiger's Ueberblick Säugeth.*: 235. [Based on Pennant's "Guiana Manati"; see Hershkovitz (1959). Reference not seen.]

Manatus atlanticus Oken, 1838 [partim], *Allgem. Naturgesch.* 7(2), *Säugth.* 1: 1098. [Applied to both American and African manatees. Type locality fixed by Hatt (1934) as "West Indies."]

H[alipaedisca]. americanus [sic] (Link) Gistel, 1848, *Naturgesch. Thierreichs f. höhere Schulen*: 83.

Manatus Koellikeri Kükenenthal, 1897, *Zool. Anz.* 20(523): 40, Feb. 1, 1897. [Type: none designated. Type locality: Suriname.]

Trichechus koellikeri (Kükenenthal) Trouessart, 1905, *Cat. Mamm., Suppl.*: 749.

Manatus manatus (Linnaeus) Holland, 1917, *Ann. Carnegie Mus.* 11(3-4): 356. [Original author of combination not identified.]

Trichechus inunguis koellikeri (Kükenenthal) Derscheid, 1926, *Rev. Zool. Afr.* 14(2), *Bull. Cercle Zool. Congolais* 3(1-2): 27.

Trichechus manatus manatus Linnaeus, Hatt, 1934, *Bull. Amer. Mus. Nat. Hist.* 66(4): 538, Sep. 10, 1934.

Trichechus manatus koellikeri (Kükenenthal) Kleinschmidt, 1982, *Braunsch. Naturk. Schr.* 1(3): 381, Oct. 1982.

Type: None designated.

Type Locality: West Indies.

Age: Recent; no referred fossils.

Trichechus manatus latirostris (Harlan, 1824) Hatt, 1934

Manatus latirostris Harlan, 1824, *J. Acad. Nat. Sci. Philadelphia* 3(2): 394, May 1824.

Trichechus latirostris (Harlan) True, 1884, *Proc. U.S. Nat. Mus.* 7: 588, Nov. 29, 1884?

Trichechus manatus latirostris (Harlan) Hatt, 1934, *Bull. Amer. Mus. Nat. Hist.* 66(4): 538, Sept. 10, 1934.

Cotypes: ANSP 2497 and possibly 2422, partial skulls.

Type Locality: East coast of Florida, U.S.

Age: Recent; no referred fossils.

Trichechus senegalensis Link, 1795

Phoca manatus (Linnaeus) Brisson, 1762 [partim], *Regnum Animale*: 164.

Manati Trichechus Boddaert, 1785 [partim], *Elenchus Anim.* 1: 173.

Trichechus Manatus australis Gmelin, 1788 [partim], *C. Linné Syst. Nat.*, ed. 13, vol. 1: 60.

M[anatus]. australis Retzius, 1794 [partim], *K. Svensk. Vetenskapsakad. Handl.* (2)15: 291, Oct.–Dec. 1794.

Tr[ichechus]. senegalensis Link, 1795, *Beytr. Naturgesch.* 1(2): 109. [Based on Buffon's "Petit Lamantin du Sénégal," based mainly on Adanson's (1757) account. Adanson's Senegal skull is said to be in the MNHN, Paris. Type locality fixed by Hatt (1934) as Senegal.]

Trichechus Australis (Gmelin) Shaw, 1800, *Gen. Zool.* 1(1): 244. [Non *T. australis* Retzius, 1794; based on Pennant's "Round-tailed Manati," a specimen of which is said to be in the Leverian Museum. Restricted to the African manatee by both Shaw and Hatt (1934).]

Manatus stroggylonurus Bechstein, 1800, in *Thomas Pennant's Allgemeine Uebersicht der vierfüßigen Thiere* 2: 732.

Manatus sphaerurus Illiger, 1815, *Abh. Akad. Wiss. Berlin* 1804-1811: 79. [Based on Adanson's (1757) description.]

Trichechus, Manatus, africanus Oken, 1816, *Lehrb. Naturgesch.* 3(2): 688. [Type locality restricted to Senegal by Hatt (1934). This work of Oken's was placed on the Official Index of Rejected Works in Zoology by ICZN Opinion 417; names in it are non-Linnaean and not available.]

Manatus senegalensis Desmarest, 1817, *Nouv. Dict. Hist. Nat.* 17: 262. [Based on description and figures in Cuvier (1809: 294–296, pl. 19, figs. 4–5). Homonym of *T. senegalensis* Link, 1795. Reference not seen.]

Manatus atlanticus Oken, 1838 [partim], *Allgem. Naturgesch.* 7(2), *Säugth.* 1: 1098.

Manatus nasutus Wyman in Perkins, 1848, *Proc. Boston Soc. Nat. Hist.* 2: 199. [Holotype: MCZ 9368. Type locality: Caracalla (= Cavally?) River, 20 miles E of Cape Palmas, Ivory Coast-Liberia border. Strictly speaking, the name was originally based not on a specimen in hand but on Perkins' description, and it is not clear from Wyman's later papers (1850, 1851) whether MCZ 9368 represents the same individual described by Perkins; however, it came from the same locality and is the only representative of this nominal species that Wyman claimed to have examined. Thus MCZ 9368 is for all intents and purposes the holotype.]

Manatus Vogelii Owen, 1856, *Edinburgh New Phil. J.* (2)4(2): 346, Oct. 1856; *Rept. 26th Meeting Brit. Assoc. Adv. Sci.*, 1857: 100; *L'Institut* 25(1208): 62, Feb. 25, 1857. [Type: None designated; name based on Vogel's description, published in translation by Shaw (1857: 98–99). Type locality: Benue River. The skull described and illustrated by Baikie (1857) (BMNH 1388d), although said by Baikie to have been exhibited by Owen at the time the latter proposed the name *Vogelii* before the BAAS, was not explicitly mentioned by Owen nor, apparently, considered by him to be referable to this species. Neither was it collected by Vogel on the Benue but rather by Baikie at Alburkah Is., near the main mouth of the Niger. Therefore it has merely the status of a referred specimen.]

Manatus Oweni Du Chailu, 1861, *Proc. Boston Soc. Nat. Hist.* 7: 367. [Syntypes: BMNH 1388b, 1388c, 1388e = 1864.12.1.8; USNM 20907

(formerly BMNH 1388a); and one in Mus. Royal Coll. Surgeons, which has probably been destroyed. Type locality: the "Camma country," at the mouth of the Gaboon River.]

Trichechus senegalensis vogelli [sic] (Owen) Derscheid, 1926, *Rev. Zool. Afr.* 14(2), *Bull. Cercle Zool. Congolais* 3(1-2): 28. [Subspecies combination erroneously attributed by Derscheid to von Heuglin. No morphological basis given for distinguishing this form from the following.]

Trichechus senegalensis senegalensis Link, Derscheid, 1926, *Rev. Zool. Afr.* 14(2), *Bull. Cercle Zool. Congolais* 3(1-2): 29.

Trichechus aequatorialis (Lacépède [partim]) Hatt, 1934, *Bull. Amer. Mus. Nat. Hist.* 66(4): 537, Sep. 10, 1934. [Nomen nudum.]

Trichechus manatus senegalensis (Link) Vieira, 1949, *Bol. Mus. Paraense Emílio Goeldi* 10: 268.

Type: No types of the species have been formally designated.

Type Locality: Senegal.

Age: Recent; no fossil record.

Indeterminate Nominal Species of Trichechids

Manatus vulgaris Bechstein, 1795, *Compend. Bibliothek.* 21 (Zool. I): 113. [Reference not seen.]

Manatus aequatorialis Lacépède, 1799, *Tabl. Div. Mamm.*: fasc. 17. [Nomen nudum.]

Trichechidae or Dugongidae incertae sedis

Sirenotherium de Paula Couto, 1967

Sirenotherium de Paula Couto, 1967, *Atas Simp. Biota Amaz.* 1: 347. [Type, by monotypy: *S. pirabense* Paula Couto.]

Sirenotherium pirabense de Paula Couto, 1967 (nomen dubium)

Sirenotherium pirabensis [sic] de Paula Couto, 1967, *Atas Simp. Biota Amaz.* 1: 347. [Incorrect original spelling.]

Holotype: MNRJ 2.761-V, left upper molar.

Type Locality: Ilha de Fortaleza, Baía de Pirabas, district of São João de Pirabas, municipality of Primavera, Pará, Brazil.

Formation: Pirabas Formation.

Age: Early Miocene.

Family DUGONGIDAE Gray, 1821

DUGONGIDAE Gray, 1821, *London Med. Reposit.* 15: 309, Apr. 1, 1821?

HALICORIDAE Gray, 1825, *Ann. Philos.* 26(= n.s. 10)(5): 341, Nov. 1825.

HALICORIDA Brandt, 1868, *Mém. Acad. Sci. St.-Petersbourg* (7)12(1): 344. [Proposed as family.]

HALICOROIDEA Gill, 1872, *Smithson. Misc. Coll.* 11(1)(230): 13, Nov. 1872. [Proposed as superfamily.]

Type Genus: *Dugong* Lacépède (= *Halicore* Illiger).

Subfamily HALITHERIINAE (Carus, 1868) Abel, 1913

HALITHERIDA Carus, 1868, *Handb. Zool.* 1: 168. [Proposed as family.]

HALITHERIIDAE Gill, 1872, *Smithson. Misc. Coll.* 11(1)(230): 13, Nov. 1872.

[Proposed as family.]

- HALITHERIINAE Abel, 1913, *Palaeontographica* 59: 358.
 ARCHAEOSIRENINAE Abel, 1914, *Vorzeitl. Säuget.*: 217. [Based on an unavailable nominal genus, though it also included available genera.]
 EOTHERIODINAE Kretzoi, 1941, *Ann. Hist.-Nat. Mus. Nat. Hungar., Pars Min. Geol. Pal.* 34: 154. [Incorrect original spelling; properly "Eotheroidinae."
 METAXYOTHERIINAE Kretzoi, 1941, *Ann. Hist.-Nat. Mus. Nat. Hungar., Pars Min. Geol. Pal.* 34: 155.
 PROTOTHERIIDAE Kretzoi, 1941, *Ann. Hist.-Nat. Mus. Nat. Hungar., Pars Min. Geol. Pal.* 34: 155. [Proposed as family.]
 HALIANASSINAE Reinhart, 1959 [partim], *Univ. Calif. Publ. Geol. Sci.* 36(1): 8, July 24, 1959.

Type Genus: *Halitherium* Kaup.

Caribosiren Reinhart, 1959

- Caribosiren* Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 8, July 24, 1959. [Type, by monotypy: *C. turneri* Reinhart.]

Caribosiren turneri Reinhart, 1959

- Caribosiren turneri* Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 8, July 24, 1959.

Holotype: UCMP 38722, skull lacking jugals and occiput, with left M²⁻³ and four thoracic vertebrae.

Type Locality: UCMP loc. V4852, on road between San Sebastián and Lares, Puerto Rico.

Formation: San Sebastián Formation.

Age: Middle or Late Oligocene.

Eosiren Andrews, 1902

- Eosiren* Andrews, 1902, *Geol. Mag.* (No. 457, N.S., Decade IV) 9(7): 293, July 1902. [Type, by monotypy: *E. libyca* Andrews.]
Archaeosiren Abel, 1913, *Palaeontographica* 59: 307. [Type, by monotypy: *A. stromeri* Abel. Generic and specific names were both nomina nuda.]

Eosiren abeli Sickenberg, 1934

- [*Eotherium*]. (*Eosiren*) *abeli* Sickenberg, 1931, *Palaeobiologica* 4(6/7): 409. [Nomen nudum.]
Eotherium (*Eosiren*) *abeli* Sickenberg, 1934, *Mém. Mus. R. Hist. Nat. Belgique* 63: 34, Dec. 31, 1934.
Eotheriodes [sic] (*Eosiren*) *abeli* (Sickenberg) Kordos, 1977, *Magyar Állam. Földt. Int. Évi Jelent.* 1975: 366.

Holotype: BSP 1903 II 21, right M². [Destroyed in World War II, together with the referred skull, mandible, atlas, and M³; only a squamosal and some vertebrae survive from the original hypodigm.]

Type Locality: Mokattam Hills, Cairo, Egypt.

Formation: Probably Mokattam Formation (Gingerich, 1992).

Age: Middle Eocene (Lutetian).

Eosiren libyca Andrews, 1902

- Eosiren libyca* Andrews, 1902, *Geol. Mag.* (No. 457, N.S., Decade IV) 9(7): 293, July 1902.

Eotherium (*Eosiren*) *libyca* (Andrews) Sickenberg, 1934, *Mém. Mus. R. Hist. Nat. Belgique* 63: 96, Dec. 31, 1934.

Eotheroides libyca [sic] (Andrews) Reinhart, 1951, *Univ. Calif. Publ., Bull. Dept. Geol. Sci.* 28(9): 209, Feb. 16, 1951. [Because the governing noun *Eotherium* is neuter, so is the adjectival form *Eotheroides*; hence the specific name should have been *libycum*, as emended by later authors.]

Holotype: CGM C.10054, skull.

Type Locality: Fayûm, Egypt.

Formation: Qasr el-Sagha Formation, probably the Temple Member (Gingerich, 1992).

Age: Late Eocene (late Priabonian).

Eosiren stromeri (Sickenberg, 1934) Kordos, 1977

Archaeosiren Stromeri Abel, 1913, *Palaeontographica* 59: 307. [Nomen nudum.]

Eotherium stromeri Sickenberg, 1931, *Palaeobiologica* 4(6/7): 409. [Nomen nudum.]

Eotherium stromeri Sickenberg, 1934, *Mém. Mus. R. Hist. Nat. Belgique* 63: 130, Dec. 31, 1934.

Eosiren stromeri (Sickenberg) Kordos, 1977, *Magyar Állam. Földt. Int. Évi Jelent.* 1975: 366.

[*Eotheroides*]. *stromeri* (Sickenberg) Domning, 1978, in Maglio & Cooke (eds.), *Evol. Afr. Mamms.*: 576.

Holotype: SMNS unnumbered, skull and partial skeleton.

Type Locality: West of Dimeh, Fayûm, Egypt.

Formation: Upper Qasr el-Sagha Formation.

Age: Late Eocene (late Priabonian).

Eotheroides Palmer, 1899

Eotherium Owen, 1875, *Quart. J. Geol. Soc. London* 31(1)(No. 121): 100. [Junior homonym of *Eotherium* Leidy, 1853 (Perissodactyla). Type, by monotypy: *E. aegyptiacum* Owen.]

Eotheroides Palmer, 1899, *Science* (2)10: 494. [Replacement name for *Eotherium* Owen, 1875.]

Masrisiren Kretzoi, 1941, *Ann. Hist.-Nat. Mus. Nat. Hungar., Pars Min. Geol. Pal.* 34: 152. [Type, by monotypy: *M. abeli* Kretzoi.]

Eotheroides aegyptiacum (Owen, 1875) Trouessart, 1905

Eotherium aegyptiacum Owen, 1875, *Quart. J. Geol. Soc. London* 31(1)(No. 121): 100.

Manatus Coulombi Filhol, 1878, *Bull. Soc. Philomath. Paris* (7)2: 124. [Types: Three lower molars. Type locality: Mokattam Hills, Cairo, Egypt; Mokattam Formation.]

Halitherium aegyptiacum (Owen) von Zittel, 1893, *Handb. Pal.* 4: 198.

Eotheroides aegyptiacum (Owen) Trouessart, 1905, *Cat. Mamm., Suppl.*: 749.

Eotheroides coulombi (Filhol) Trouessart, 1905, *Cat. Mamm., Suppl.*: 749.

Masrisiren Abeli Kretzoi, 1941, *Ann. Hist.-Nat. Mus. Nat. Hungar., Pars Min. Geol. Pal.* 34: 152. [Syntypes: "Individuum IX. und II. von Abel (1913)."
 Type locality: Mokattam Hills, Cairo, Egypt.]

Holotype: BMNH 46722, natural endocast of cranial cavity.

Type Locality: Mokattam Hills, Cairo, Egypt.

Formation: Probably the upper part of the Lower Building Stone Member of the Mokattam Formation (Gingerich, 1992).

Age: Middle Eocene (probably middle Lutetian).

"Eotherium" majus Zdansky, 1938

Eotherium majus Zdansky, 1938, *Palaeobiologica* 6(2): 434.

Holotype: Left M².

Type Locality: Mokattam Hills, Cairo, Egypt.

Formation: Mokattam Formation.

Age: Middle Eocene (Lutetian).

Remarks: Status and affinities uncertain.

Halitherium Kaup, 1838

Pugmeodon Kaup in Kaup and Scholl, 1834, *Verzeichn. Gyps-Abgüsse Ausgezeichnet. Urweltl. Thierrest. Grossh. Mus. Darmstadt*, 2. Ausg.: 16, Sep. 1834. [Type, by monotypy: *P. schinzii* Kaup. Both names were nomina nuda.]

Halytherium Kaup, 1838, *Neues Jb. Min. Geogn. Geol. Pet.*: 319, May 1838. [Spelling changed to *Halitherium* on p. 536 of the same volume; *Halitherium* deemed to be the correct original spelling and placed on the Official List of Generic Names in Zoology, and *Halytherium* placed on the Official Index of Rejected and Invalid Generic Names, by ICZN Opinion 1535, *Bull. Zool. Nomencl.* 46(1): 83, March 1989. Type, by subsequent designation (in Opinion 1535): *Pugmeodon schinzii* Kaup.]

Pugmeodon Kaup, 1838, *Neues Jb. Min. Geogn. Geol. Pet.*: 319, May 1838. [Type, by monotypy: *P. schinzii* Kaup. The generic name is a nomen oblitum.]

Halianassa von Meyer, 1838 [partim], *Neues Jb. Min. Geogn. Geol. Pet.* 1838: 667, Sept. 1838. [Type, by monotypy: *Halianassa studeri* von Meyer. Name declared a junior objective synonym of *Halitherium* and placed on the Official List of Rejected and Invalid Generic Names by ICZN Opinion 1535, *Bull. Zool. Nomencl.* 46(1): 83, March 1989.]

Halibutherium Gloger, 1842, *Gemeinnütz. Hand- u. Hilfsbuch Naturgesch.* 1: 166. [Nomen nudum; = *Halitherium*?]

Pygmaeodon Giebel, 1847, *Fauna der Vorwelt*: 230. [Lapsus for *Pugmeodon*.]
Trachytherium Gervais, 1849, *C.R. Acad. Sci. Paris* 28: 644, May 1849. [Type, by monotypy: *T. raulinii* Gervais.]

Crassitherium van Beneden, 1871 [partim], *Bull. Acad. Roy. Belgique* (2)32(9/10): 171. [Type, by monotypy: *C. robustum* van Beneden.]

Manatherium Hartlaub, 1886, *Zool. Jb.* 1: 378. [Type, by monotypy: *M. delheidi* Hartlaub.]

Halitherium alleni Simpson, 1932

Halitherium antiquum (Leidy) Allen, sensu Allen, 1926, *Bull. Mus. Comp. Zool.* 67(14): 455, July, 1926. [Includes all the referred specimens described here by Allen, but not Leidy's original type specimen; see Simpson (1932a: 445).]

Halitherium alleni Simpson, 1932, *Bull. Amer. Mus. Nat. Hist.* 59(8): 445, Sept. 6, 1932.

Felsinotherium alleni (Simpson) Kellogg, 1966, *U.S. Natl. Mus. Bull.* 247(3): 91.

M[etaxytherium]. alleni (Simpson) Fondi and Pacini, 1974, *Palaeontogr. Ital.* 67(n.s. 37): 45.

Holotype: MCZ 17142, parietal-supraoccipital skullcap.

Type Locality: Ashley River phosphate deposits near Charleston, South Carolina, U.S.

Formation: Unknown; probably either the Ashley Formation of the Cooper Group or the Chandler Bridge Formation.

Age: Unknown; probably Late Oligocene.

Remarks: Status and affinities uncertain.

?Halitherium antillense Matthew, 1916

?Halitherium antillense Matthew, 1916, *Ann. N. Y. Acad. Sci.* 27: 25, Jan. 28, 1916.

Holotype: AMNH 9844, posterior part of left mandible with M¹⁻³; one cervical and one thoracic vertebra.

Type Locality: West bank of Rio Jacaguas, 1 km N and 1 km W of Juana Díaz, Puerto Rico.

Formation: Principal reference section of the Juana Díaz Formation, as designated by Monroe (1980: 68).

Age: Middle Oligocene (upper *Globigerina ampliapertura* Zone; Moussa and Seiglie, 1970, *AAPG Bull.* 54(10): 1892); = lower Chattian, ca. 31 Ma.

Remarks: Status and affinities uncertain.

Halitherium christolii Fitzinger, 1842

Halitherium Christolii Fitzinger, 1842, *6ter Ber. Mus. Franc.-Carol. Linz*: 71. *M[anatus]. Christolii* (Fitzinger) de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 122.

Met[axytherium]. Christolii (Fitzinger) Laurillard, 1846, *Dict. Univ. d'Hist. Nat.* 8: 172.

Halianassa Collinii von Meyer [partim], sensu von Meyer, 1847, *Neues Jb. Min. Geogn. Geol. Pet.*: 189, 578.

Halitherium Schinzi Kaup, sensu Peters, 1867, *Jb. K.-K. Geol. Reichsanst. Wien* 17: 310.

Halitherium Schinzi Kaup [partim], sensu Lepsius, 1882, *Abh. Mittelrhein. Geol. Ver.* 1: 164.

Metaxytherium(?) pergense Toula, 1899, *Neues Jb. Min. Geol. Pal.*, 12. Beilageband: 459, pl. 12. [Holotype: Oberöst. Landesmus. Linz No. 11/1899, skull roof. Type locality: Perg, Austria.]

Halitherium pergense (Toula) Spillmann, 1959, *Denkschr. Math.-Nat. Kl. Oesterr. Akad. Wiss.* 110(3): 11.

Halitherium Abeli Spillmann, 1959, *Denkschr. Math.-Nat. Kl. Oesterr. Akad. Wiss.* 110(3): 36. [Holotype: Oberöst. Landesmus. Linz No. 257/1939, left and right mandibles with DP₅-M₃. Type locality: Linz, Austria.]

Type Series: Mandible with left DP₅-M₂ and right M₁₋₃; two isolated molars; ribs and vertebrae (Oberöst. Landesmus., Linz); isolated ?M₃ (Mus. Naturgesch., Vienna).

Type Locality: Sicherbauer-Gestätte sand quarry, Linz, Austria.

Formation: "Erste Mediterranstufe"; Linzer Sande.

Age: Late Oligocene (Egerian).

Halitherium schinzii (Kaup, 1838) Kaup, 1855

Pugmeodon Schinzii Kaup in Kaup and Scholl, 1834, *Verzeichn. Gyps-Abgüsse Ausgezeichnet. Urweltl. Thierrest. Grossh. Mus. Darmstadt*, 2. Ausg.: 16, Sep. 1834. [Nomen nudum.]

Hippopotamus dubius Cuvier, sensu Kaup, 1838, *Neues Jb. Min. Geogn. Geol. Pet.*: 319, May 1838.

Halytherium dubium (Cuvier) Kaup, 1838, *Neues Jb. Min. Geogn. Geol. Pet.*: 319, pl. 2: figs. D1, 2, May 1838. [Note that this new combination was misapplied to material generically distinct from the original "*Hippopotamus dubius* of Cuvier (= *?Protosiren minima*). Spelling changed to *Halitherium* on p. 536. Based on HLMD Az 47, lower molar.]

Pugmeodon Schinzii Kaup, 1838, *Neues Jb. Min. Geogn. Geol. Pet.*: 319, pl. 2: fig. C1, 2, May 1838. [Holotype: HLMD Az 48, premolar. Name placed on

- the Official List of Specific Names in Zoology by ICZN Opinion 1535, *Bull. Zool. Nomencl.* 46(1): 83, March 1989.]
- Halianassa Studeri* von Meyer, 1838 [partim], *Neues Jb. Min. Geogn. Geol. Pet.*: 667, Sep. 1838. [Neotype: HLMD Az 48, premolar (= holotype of *Pugmeodon schinzii*); name declared an objective junior synonym of *Halitherium schinzii* and placed on the Official Index of Rejected and Invalid Specific Names by ICZN Opinion 1535, *Bull. Zool. Nomencl.* 46(1): 83, March 1989.]
- Manatus Renggeri* Bronn, 1838, *Lethaea Geogn.*: 840. [Nomen nudum; lapsus. = *Halitherium schinzii*; see Bronn, 1848.]
- M[anatus]. Guettardi* de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 122, 124. [Holotype: Partial skeleton. Type locality: Étrecty, near Étampes, France.]
- M[anatus]. Schinzii* (Kaup) de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 124.
- M[anatus]. dubius* (Cuvier) de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 124.
- Halianassa Collinii* von Meyer, 1846, *Neues Jb. Min. Geogn. Geol. Pet.*: 328. [Based on unspecified material from Flonheim.]
- Met[axytherium]. Guettardi* (de Blainville) Laurillard, 1846, *Dict. Univ. d'Hist. Nat.* 8: 172.
- H[alitherium]. Guettardi* (de Blainville) Gervais, 1847, *Ann. Sci. Nat. (Zool.)* (3)8: 221, Oct. 1847.
- Pygmaeodon Schinzii* Giebel, 1847, *Fauna der Vorwelt*: 230. [Lapsus for *Pugmeodon schinzii*.]
- Trachytherium Raulinii* Gervais, 1849, *C. R. Acad. Sci. Paris* 28: 644, May 1849. [Holotype: Mus. Hist. Nat. Bordeaux, isolated M₁, Type locality: La Réole, Gironde, France.]
- Halitherium Cuvieri* (de Christol) Kaup, 1840, sensu Kaup, 1855, *Beitr. Näh. Kenntn. Urweltl. Säugeth.*: 11.
- Halitherium Schinzi* (Kaup) Kaup, 1855, *Beitr. Näh. Kenntn. Urweltl. Säugeth.*: 11.
- Halitherium Kaupi* Krauss, 1858, *Neues Jb. Min. Geogn. Geol. Pet.*: 528. [Holotype: skull roof figured by Kaup (1855: pl. 2, fig. 1). Type locality: ?Flonheim, Germany.]
- Halitherium Bronni* Krauss, 1858, *Neues Jb. Min. Geogn. Geol. Pet.*: 530. [Holotype: SMNS 1539, skull roof. Type locality: Flonheim, Germany.]
- Crassitherium robustum* Van Beneden, 1871 [partim], *Bull. Acad. Roy. Belgique* (2)32(9/10): 171. [Types: ?reptile skull fragment and 8 vertebrae of *Halitherium schinzii*; see Sickenberg (1934b: 205, 207). Type locality: Boom, Belgium; Argile de Boom.]
- Halitherium Chouqueti* Gaudry, 1884, *Bull. Soc. Géol. France* (3)12(6): 373, May 1884. [Holotype: 14 ribs. Type locality: Louveciennes, Seine-et-Oise, France.]
- Manatherium delheidi* Hartlaub, 1886, *Zool. Jb.* 1: 378. [Holotype: MNHB Ht.M.151, skull fragments of juvenile. Type locality: Hemixem, near Hoboken, Belgium; Rupelton.]
- H[alitherium]. Raulini* (Gervais) Depéret, 1895, *Sitzb. Math.-Nat. Kl. K. Akad. Wiss. Wien* 104(1): 410.
- Halitherium Uytterhoeveni* Abel, 1925, *Gesch. Meth. Rekonstr. Vorzeitl. Wirbelt.*: 39. [Holotype: MNHB 3663 (I.G. 6433), Plt.M.141, partial skeleton. Type locality: Boom, Belgium; Rupelton. Earliest known publication of this MS. name of Lefèvre; see Sickenberg (1934b: 206).]
- Halitherium schinzi* Kaup forma *typica* Sickenberg, 1934, *Mém. Mus. R. Hist. Nat. Belgique* 63: 271, Dec. 31, 1934.
- Halitherium schinzi* Kaup forma *delheidi* (Hartlaub) Sickenberg, 1934, *Mém. Mus. R. Hist. Nat. Belgique* 63: 207, Dec. 31, 1934.
- Halitherium schinzi lareolensis* [sic] Pilleri, 1987, *Sirenia of the Swiss Molasse*: 46. [Incorrect original spelling; properly "*H. s. lareolense*."] Holotype: NHMB M.G. 60, mandible with M¹⁻³. Type locality: La Réole, Gironde, France; Lower Rupelian.] NEW SYNONYMY.
- Holotype:** HLMD Az 48, premolar.
Type Locality: Flonheim, Germany.
Formation: Unterer Meeressand.
Age: Middle Oligocene (Rupelian, Suevian).

Metaxytherium de Christol, 1840

- Halianassa* von Meyer, 1838 [partim], *Neues Jb. Min. Geogn. Geol. Pet.*: 667, Sep. 1838. [Type, by monotypy: *H. studeri* von Meyer (= *Manatus studeri* von Meyer, 1837, nomen nudum; = *Metaxytherium krahuletzii* Depéret). Name placed on the Official Index of Rejected and Invalid Generic Names by ICZN Opinion 1535, *Bull. Zool. Nomencl.* 46(1): 83, March 1989.]
- Cheirotherium* Bruno, 1839, *Mem. R. Accad. Sci. Torino* 2(1): 160. [Junior homonym of *Cheirotherium* Kaup, 1835 (Reptilia). Type, by monotypy: *C. subapenninum* Bruno.]
- Metaxytherium* de Christol, 1840, *L'Institut* Vol. 8, Sect. 1, No. 352: 323, Sep. 24, 1840; *Rev. Zool.* 3: 283, Sep. 1840; *C. R. Acad. Sci. Paris* 11(12): 529; *Ann. Sci. Nat. Zool.* (2)15: 332, June 1841. [Type, by subsequent designation (Depéret and Roman, 1920): *Metaxytherium cuvieri* de Christol (= *Hippopotamus medius* Desmarest).]
- Fucotherium* Kaup, 1840, *Neues Jb. Min. Geogn. Geol. Pet.* 1840: 675. [Published as synonym of *Metaxytherium*; type, by monotypy: *Halicore cuvieri* de Christol.]
- Pontotherium* Kaup, 1840, *Neues Jb. Min. Geogn. Geol. Pet.* 1840: 676. [Replacement name for *Cheirotherium* Bruno.]
- Felsinotherium* Capellini, 1865, *Atti Soc. Ital. Sci. Nat. Milano* 8: 281. [Nomen nudum.]
- Felsinotherium* Capellini, 1872, *Mem. Accad. Sci. Ist. Bologna* (3)1: 615. [Type, by original designation: *F. forestii* Capellini.]
- Hesperosiren* Simpson, 1932, *Bull. Amer. Mus. Nat. Hist.* 59(8): 426, Sep. 6, 1932. [Type, by monotypy: *H. crataegensis* Simpson.]
- Furcotherium* Simpson, 1932, *Bull. Amer. Mus. Nat. Hist.* 59(8): 481, Sep. 6, 1932. [Lapsus for *Fucotherium*.]
- Halysiren* Kretzoi, 1941, *Ann. Hist.-Nat. Mus. Nat. Hungar., Pars Min. Geol. Pal.* 34: 153. [Replacement name for *Cheirotherium* Bruno.]
- Haplosiren* Kretzoi, 1951, *Földt. Közl.* 81(10-12): 438. [Type, by monotypy: *H. leganyii* Kretzoi.]

Metaxytherium aquitaniae Pilleri, 1987

Metaxytherium aquitaniae Pilleri, 1987, *Sirenia of the Swiss Molasse*: 41.

Holotype: NHMB 09.917/1926, parietal-supraoccipital skullcap.

Type Locality: Courtebotte near Gans, district of Langon, Canton of Bazas, Gironde, France.

Formation: ?

Age: Early Miocene (Middle Aquitanian).

Remarks: Status and affinities uncertain.

Metaxytherium arctodites Aranda-Manteca, Domning, and Barnes, 1994

Metaxytherium arctodites Aranda-Manteca, Domning, and Barnes, 1994, *Proc. San Diego Soc. Nat. Hist.* 29: 192, May 1, 1994.

Holotype: FCM 3693, skull and skeleton of subadult individual.

Type Locality: FCM loc. LM-1, La Misión, Baja California, Mexico.

Formation: Rosarito Beach Formation, Los Indios Member.

Age: Middle Miocene (Barstovian).

Metaxytherium beaumontii de Christol in de Blainville, 1844
(nomen dubium)

Metaxytherium Beaumontii de Christol in de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 130.

Haliitherium Beaumontii (de Christol) Gervais, 1852, *Zool. Pal. Franç.*, 1: 144.

Holotype: Nearly complete skeleton lacking mandible; formerly at Faculté des Sciences de Dijon but now lost.

Type Locality: Beaucaire, France.

Formation: "Molasse de Beaucaire."

Age: Early Miocene (Burdigalian; Depéret and Roman, 1920: 31).

Metaxytherium crataegense (Simpson, 1932) Aranda-Manteca, Domning, and Barnes, 1994

Hesperosiren crataegensis Simpson, 1932, *Bull. Amer. Mus. Nat. Hist.* 59(8): 426, Sep. 6, 1932.

Metaxytherium calvertense Kellogg, 1966, *U.S. Nat. Mus. Bull.* 247(3): 71. [Holotype: USNM 16757, skull and partial skeleton of immature individual. Type Locality: Plum Point, Calvert County, Maryland, U.S.; Plum Point Member, Calvert Formation; earliest Middle Miocene (Langhian; lower part of planktonic foraminiferal zone N.9).]

Metaxytherium riveroi Varona, 1972, *Mem. Soc. Cienc. Nat. La Salle* (Caracas) No. 91, Tomo 32: 6, Jan.–Apr. 1972. [Holotype: DPUH 1255, partial skull and skeletal fragments of juvenile. Type locality: San Antonio de Cabezas, Matanzas, Cuba; Güines Formation.] NEW SYNONYMY.

Metaxytherium crataegense (Simpson) Aranda-Manteca, Domning, and Barnes, 1994, *Proc. San Diego Soc. Nat. Hist.* 29: 192, May 1, 1994.

Holotype: AMNH 26838, skull, vertebrae, and ribs of adult.

Type Locality: Floridin Company mine, N of Quincy, Gadsden County, Florida, U.S.

Formation: Hawthorn Group, Torreya Formation, Dogtown Member.

Age: Early-Middle Miocene (late Hemingfordian or early Barstovian; Bryant, 1991).

Metaxytherium floridanum Hay, 1922

Manatus antiquus Leidy, sensu Leidy, 1889, *Trans. Wagner Free Inst. Sci.* 2: 27.

Metaxytherium floridanum Hay, 1922, *Proc. U.S. Nat. Mus.* 61(17): 1.

Felsinotherium floridanum (Hay) Simpson, 1932, *Bull. Amer. Mus. Nat. Hist.* 59(8): 447, Sep. 6, 1932.

Felsinotherium ossivallense Simpson, 1932, *Bull. Amer. Mus. Nat. Hist.* 59(8): 448, Sep. 6, 1932. [Holotype: AMNH 26805, maxillary fragment with M³. Type locality: Mulberry, Polk County, Florida, U.S.]

F[elsinotherium]. gunteri Simpson, 1932, *Bull. Amer. Mus. Nat. Hist.* 59(8): 449, Sep. 6, 1932. [Nomen nudum; lapsus for *F. ossivallense*; see Reinhart (1976: 228).]

Metaxytherium ossivalense [sic] (Simpson) Reinhart, 1971, *Plaster Jacket* No. 15: [8], Oct. 1, 1971.

Holotype: USNM 7221, right maxilla with M³.

Type Locality: Pit No. 7 of the Prairie Pebble Phosphate Company, 1 mile W of Mulberry, Polk County, Florida, U.S.

Formation: Lower Bone Valley Formation; presumably

Unit 4 of Crissinger (1977, *Southeast. Geol. Soc. Publ.* 19: 49–60).

Age: Probably late Middle Miocene (Early Clarendonian).

"*Metaxytherium*" *kachchhense* Bajpai, Singh, and Singh, 1987

Metaxytherium kachchhensis [sic] Bajpai, Singh, and Singh, 1987, *Jour. Palaeont. Soc. India* 32: 21. [Incorrect original spelling.]

Holotype: LUVF/MP 1032, complete skull.

Type Locality: Near Aida, southwestern Kachchh (= Cutch), India.

Formation: Aidaian Stage or Khari Nadi Formation, Khari Series.

Age: Early Miocene (Aquitanian).

Remarks: Possibly referable to Dugonginae.

Metaxytherium krahuletzii Depéret, 1895

Manatus Studeri von Meyer, 1837, *Neues Jb. Min. Geogn. Geol. Pet.* 8: 677. [Nomen nudum. Based on Mus. Naturgesch. Bern, unnumbered, left maxilla with DP²–M³. Type locality: Mäggenwyl, near Lenzburg, Canton Aargau, Switzerland; Burdigalian "Molassen-Sandstein."]

Halianassa Studeri von Meyer, 1838 [partim], *Neues Jb. Min. Geogn. Geol. Pet.* 1838: 667, Sep. 1838. [Names placed on the Official Indexes of Rejected and Invalid Generic and Specific Names by ICZN Opinion 1535, *Bull. Zool. Nomencl.* 46(1): 83, March 1989.]

M[anatus]. Studeri (von Meyer) de Blainville, 1844 [partim], *Ostéogr.*, Genre *Manatus*: 124.

Haliitherium Studeri (von Meyer) Kaup, 1855 [partim], *Beitr. Näh. Kenntn. Urweltl. Säugeth.*: 12.

Haliitherium Schinzi (Kaup), sensu Tola and Kail, 1885, *Denkschr. Akad. Wiss. Wien* 50: 300.

Halianassa studeri von Meyer, sensu Studer, 1887, *Abh. Schweiz. Pal. Ges.* 14: 10.

Metaxytherium krahuletzii Depéret, 1895, *Sitzb. Math.-Nat. Kl. Akad. Wiss. Wien* 104(1): 408.

M[etaxytherium]. studeri (von Meyer) Depéret, 1895, *Sitzb. Math.-Nat. Kl. Akad. Wiss. Wien* 104(1): 409.

Metaxytherium Christoli (Fitzinger) Laurillard, sensu Schlosser, 1902, *Geol. Pal. Abh.* (Koken), N.F., 5(3): 229.

Th[alattosiren]. studeri (von Meyer) Thenius, 1952, *Neues Jb. Geol. Pal. (Abh.)* 96(1): 113.

Metaxytherium argoviense Pilleri, 1987, *Sirenia of the Swiss Molasse*: 14. [Unavailable name; proposed conditionally.]

Metaxytherium krahuletzii excelsum Pilleri, 1987, *Sirenia of the Swiss Molasse*: 16. [Holotype: Collection of Jürg Jost, Zofingen, Switzerland, parietal-supraoccipital skullcap. Type locality: Safenwil-Striegel, Canton Aargau, Switzerland; upper marine molasse, Lower Burdigalian.] NEW SYNONYMY.

Type Series: Krahuletzmus. Eggenburg nos. G II 21, 22, 25, 26, 29, 34, six isolated molars.

Type Locality: Schindergraben, near Eggenburg, Austria.

Formation: "Erste Mediterranstufe (Horner Schichten)" (Depéret, 1895); = Burgschleinitz Formation.

Age: Early Miocene (Eggenburgian).

Metaxytherium lovisati Capellini, 1886

Metaxytherium lovisati Capellini, 1886, *Mem. R. Accad. Sci. Ist. Bologna* (4) 50.

Holotype: Cervical vertebrae 2–7 and thoracic vertebra 1.

Type Locality: Monte Fiocca, near Sassari, Sardinia.

Formation: ?

Age: Miocene.

Remarks: Status and affinities uncertain; possibly synonymous with *M. medium*.

Metaxytherium medium (Desmarest, 1822) Hooijer, 1952

"Lamantin fossile," G. Cuvier, 1809, *Ann. Mus. Hist. Nat.* 13: 305, pl. 19: figs. 12, 19–23.

"Moyen hippopotame fossile," Cuvier, 1821, *Rech. Oss. Fossiles*, ed. 2, vol. 1: 332, pl. 7, fig. 9.

Hippopotamus medius Desmarest, 1822, *Mammalogie*: 388.

Hippopotamus intermedius Holl, 1829, *Handb. Petrefactenk.*: 57.

Manatus fossilis Holl, 1829, *Handb. Petrefactenk.*: 69.

Halicore Cuvierii de Christol, 1832 [partim], *Ann. Sci. Indust. Midi France* 2(8): 244, pl. 6: figs. 1–3.

Halianassa Studeri von Meyer, 1838 [partim], *Neues Jb. Min. Geogn. Geol. Pet.* 1838: 667, Sep. 1838. [Names placed on the Official Indexes of Rejected and Invalid Generic and Specific Names by ICZN Opinion 1535, *Bull. Zool. Nomencl.* 46(1): 83, March 1989.]

Halitherium cuvieri (de Christol) Kaup, 1840, *Neues Jb. Min. Geogn. Geol. Pet.*: 675.

"*Metaxytherium* ... d'Angers et de Nantes," de Christol, 1841, *Ann. Sci. Nat. Zool.* (2)15: 332, pl. 7: figs. 1, 5, 9–11.

M[etaxytherium]. Cordieri de Christol in de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 130. [Based on unspecified material from the Loire Valley, France.]

M[anatus]. Cuvieri (de Christol) de Blainville, 1844 [partim], *Ostéogr.*, Genre *Manatus*: 122.

M[etaxytherium]. Cuvierii (de Christol) de Christol in de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 130.

Halitherium fossilis [sic] (Holl) Gervais, 1847, *Ann. Sci. Nat. (Zool.)* (3)8: 221, Oct. 1847.

Halianassa Cordieri (de Christol) Bronn, 1848, *Index Pal.*: 562.

Halianassa Cuvieri (de Christol) Bronn, 1848, *Index Pal.*: 562.

Halitherium cordieri (de Christol) Peters, 1867, *Jahrb. Geol. Reichsanst. Wien* 17(2): 309.

M[etaxytherium]. fossile (Holl) Depéret, 1895, *Sitzb. Math.-Nat. Kl. K. Akad. Wiss. Wien* 104(1): 409.

Haplosiren leganyii Kretzoi, 1951, *Földt. Köz.* 81(10–12): 438. [Holotype: FIV 6001, left mandibular fragment with M_{2-3} . Type locality: Mátraszöllös, Hungary; Rákos Leitha-Limestone Formation, Upper Tortonian, ?Late Badenian.]

Metaxytherium medium (Desmarest) Hooijer, 1952, *Osiris* 10: 114.

Metaxytherium catalaunicum Pilleri in Pilleri, Biosca, and Via, 1989, *Tert. Sir. Catalonia*: 68. [Holotype: Mus. Vilafranca del Penedès (Barcelona) no. 1210, skull, mandible, and postcranial remains. Type locality: Olèrdola, Catalonia, Spain.] NEW SYNONYMY.

Holotype: MNHN Fs 2706, partial left mandible with M_{2-3} and roots of M_1 (the "Moyen hippopotame" of Cuvier, 1821).

Type Locality: Saint-Michel en Chaisine, Maine-et-Loire, France.

Formation: Calcareous tuff.

Age: Middle or Late Miocene (Serravallian-Tortonian).

Metaxytherium meyeri Abel, 1904 (nomen dubium)

Metaxytherium Meyeri Abel, 1904, *Abh. K.-K. Geol. Reichsanst.* 19(2): 15, June 1904.

Holotype: SMNS unnumbered, proximal end of left humerus.

Type Locality: Baltringen, Germany.

Formation: "Meeresmolasse."

Age: Miocene (Burdigalian?).

Remarks: Status and affinities uncertain.

Metaxytherium serresii (Gervais, 1847) Depéret, 1895

Halicore Cuvierii de Christol, 1832 [partim], *Ann. Sci. Indust. Midi France* 2(8): 244.

Halicore medius (Desmarest) de Serres, 1838, *Ann. Sci. Nat. Zool.* (2)9: 286. [Note that this new combination was misapplied to material specifically distinct from the original "*Hippopotamus*" *medius* of Desmarest (= *Metaxytherium medium*).]

"*Metaxytherium* de Montpellier," de Christol, 1841, *Ann. Sci. Nat. Zool.* (2)15: 332; pl. 7: figs. 2, 3, 6.

M[anatus]. Cuvieri (de Christol), sensu de Blainville, 1844 [partim], *Ostéogr.*, Genre *Manatus*: 122.

M[etaxytherium]. Cuvieri (de Christol), sensu de Christol in de Blainville, 1844, *Ostéographie*, Genre *Manatus*: 130. [This and the previous name are nomina oblita as applied to Montpellier specimens.]

Halitherium Serresii Gervais, 1847, *Ann. Sci. Nat. (Zool.)* (3)8: 221, Oct. 1847. *Felsinotherium Serresii* (Gervais) de Zigno, 1878, *Atti R. Accad. Lincei, Mem. Cl. Sci. Fis. Matem. Nat.* (3)2: 941.

Halitherium minor Cope, 1883, *Proc. Acad. Nat. Sci. Philadelphia* 1883: 52.

M[etaxytherium]. Serresi (Gervais) Depéret, 1895, *Sitzb. Math.-Nat. Kl. K. Akad. Wiss. Wien* 104(1): 409.

Type: No type specimens of this species have ever been designated.

Type Locality: Montpellier, France.

Formation: Sables à *Gryphaea virleti*.

Age: Early Pliocene (early Zanclian, MN 14).

Metaxytherium subapenninum (Bruno, 1839) Fondi and Pacini, 1974

Cheirotherium sub-apenninum Bruno, 1839, *Mem. R. Accad. Sci. Torino* 2(1): 160.

Cheirotherium Brocchii de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 121. [Lapsus for *C. subapenninum*.]

Manatus Brocchii (de Blainville) de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 121.

Met[axytherium]. Brocchii (de Blainville) Laurillard, 1846, *Dict. Univ. d'Hist. Nat.* 8: 171.

Halitherium Brocchii (de Blainville) Gervais, 1847, *Ann. Sci. Nat. (Zool.)* (3)8: 221, Oct. 1847.

Halianassa Brocchii (de Blainville) Bronn, 1848, *Index Pal.*: 562.

Halitherium subapenninum (Bruno) Kaup, 1855, *Beitr. Näh. Kenntn. Urweltl. Säugeth.*: 11.

Felsinotherium Forestii Capellini, 1872, *Mem. R. Accad. Sci. Ist. Bologna* (3)1: 617. [Holotype: Museum G. Capellini, Univ. of Bologna, unnumbered, skull, mandible, and postcranial elements. Type locality: Riosto, province of Bologna, Italy.]

Felsinotherium Gervaisi Capellini, 1872, *Mem. R. Accad. Sci. Ist. Bologna* (3)1: 634. [Holotype: partial skull and mandible. Type locality: Val di Pugna, near Siena, Italy.]

Felsinotherium subapenninum (Bruno) de Zigno, 1878, *Bull. Soc. Géol. France* (3)6: 70.

Felsinotherium Gastaldi de Zigno, 1878, *Atti R. Accad. Lincei (Roma), Mem. Cl. Sci. Fis. Matem. Nat.* (3)2: 941. [Holotype: Museo Craveri, Brà,

Piemonte, unnumbered, skull and rib fragment. Type locality: Brà, Piemonte, Italy.]

Felsinotherium subalpinum Issel, 1910, *Mem. R. Accad. Lincei (Roma)* (5)8: 203.

Metaxytherium forestii (Capellini) Fondi and Pacini, 1974, *Palaeont. Ital.* 67(n.s. 37): 37.

Metaxytherium subappenninum [sic] (Bruno) Fondi and Pacini, 1974, *Palaeont. Ital.* 67(n.s. 37): 45.

Metaxytherium gervaisi (Capellini) Fondi and Pacini, 1974, *Palaeont. Ital.* 67(n.s. 37): 45.

Metaxytherium gastaldi (de Zigno) Fondi and Pacini, 1974, *Palaeont. Ital.* 67(n.s. 37): 45.

Holotype: Regional Mus. Nat. Hist. Turin no. NT-13889, partial skull and skeleton.

Type Locality: Montiglio hills, Tanaro valley, Piemonte, Italy.

Formation: ?

Age: Late Pliocene (Astian).

Prototherium de Zigno, 1887

Prototherium de Zigno, 1887, *Bull. Soc. Géol. France* (3)15: 731. [Type, by monotypy: *Halitherium veronense* de Zigno.]

Mesosiren Abel, 1906, *Neues Jb. Min. Geol. Pal. (Abh.)* 1906(2): 52. [Type, by monotypy: *M. dolloi* Abel.]

Paraliosiren Abel, 1906, *Neues Jb. Min. Geol. Pal. (Abh.)* 1906(2): 59. [Type, by monotypy: *P. suessi* Abel.]

Prototherium veronense (de Zigno, 1875) de Zigno, 1887

Halitherium veronense de Zigno, 1875, *Mem. R. Ist. Veneto Sci. Lett. Arti* 18: 445.

Halitherium angustifrons de Zigno, 1875, *Mem. R. Ist. Veneto Sci. Lett. Arti* 18: 441. [Syntypes: MGP 12 and 17, two skull fragments. Type locality: Monte Zuello, Italy.]

Halitherium curvidens de Zigno, 1875, *Mem. R. Ist. Veneto Sci. Lett. Arti* 18: 443. [Holotype: MGP 11, partial mandible. Type locality: Monte Zuello, Italy.]

Halitherium (Prototherium) veronense de Zigno, 1887, *Bull. Soc. Géol. France* (3)15: 731.

Prorastoma veronense (de Zigno) Lydekker, 1892, *Proc. Zool. Soc. London* 1892(1): 83, June 1892.

Prorastomus veronensis (de Zigno) Trouessart, 1898, *Cat. Mamm.*: 999.

Protosiren Dolloi Abel, 1904, *Abh. K.-K. Geol. Reichsanst.* 19(2): 214. [Nomen nudum.]

Mesosiren Dolloi Abel, 1906, *Neues Jb. Min. Geol. Pal. (Abh.)* 1906(2): 52. [Lectotype: PIUW unnumbered, left maxillary fragment with DP³-M¹. Type locality: Monte Zuello, Italy. Abel did not designate a type from among the specimens available to him; Sickenberg (1934b: 154) referred to this one as the "Type," and I regard this as designation of a lectotype.]

Paraliosiren Suessi Abel, 1906, *Neues Jb. Min. Geol. Pal. (Abh.)* 1906(2): 59. [Holotype: PIUW 1870.II.216 and 219, right jugal and maxilla with DP³-M². Type locality: Monte Zuello, Italy. Identified as the "Type" by Sickenberg (1934b: 154).]

Protosiren veronense [sic] (de Zigno) Kaltenmark, 1942, *Mammalia* 6(3/4): 108. [Lapsus for *Prototherium veronense*.]

Holotype: MGP 10, nearly complete skull.

Type Locality: Monte Zuello, near Ronca, Italy.

Formation: ?

Age: Late Eocene (Auversian).

"*Prototherium*" *intermedium* Bizzotto, 1983

Prototherium intermedium Bizzotto, 1983, *Mem. Sci. Geol., Ist. Geol. Min. Univ. Padova* 36: 111.

Prototherium solei Pilleri in Pilleri, Biosca, and Via, 1989, *Tert. Sir. Catalonia*: 17. [Holotype: Collection Jesus Solé (Tona, Spain) no. 441, partial skull and skeleton. Type locality: Tona, Spain.] NEW SYNONYMY.

Prototherium montserratense Pilleri in Pilleri, Biosca, and Via, 1989, *Tert. Sir. Catalonia*: 37. [Holotype: Geol. Mus. in Seminarium (Barcelona) no. 44.892, skull and skeleton. Type locality: Castellbell i Vilar (Saint Cristòfol), Spain.] NEW SYNONYMY.

Holotype: MGP 25837 and 26300: mandible, skull, and partial skeleton of one individual.

Type Locality: Cava Cunial, Le Coe, Possagno, Italy.

Formation: Marna di Possagno (Possagno Marl), upper part.

Age: Late Eocene (Priabonian), *Globigerina cerroazulensis* Biozone.

Remarks: Probably generically distinct from *P. veronense*.

Thalattosiren Sickenberg, 1928

Thalattosiren Sickenberg, 1928, *Denkschr. Akad. Wiss. Wien, Math.-Nat. Kl.* 101: 293. [Type, by monotypy: *Metaxytherium petersi* Abel.]

Thalattosiren petersi (Abel, 1904) Sickenberg, 1928

Halitherium Cordieri de Christol, sensu Peters, 1867, *Jb. Geol. Reichsanst. Wien* 17(2): 309.

Metaxytherium Petersi Abel, 1904, *Abh. K.-K. Geol. Reichsanst. Wien* 19(2):15, 107, June 1904.

Thalattosiren Petersi (Abel) Sickenberg, 1928, *Denkschr. Akad. Wiss. Wien, Math.-Nat. Kl.* 101: 293.

Holotype: Skeleton lacking skull; described by Peters (1867) and Abel (1904a), termed "Typusexemplar" by Pia and Sickenberg (1934: 403); formerly in Geol. Bundesanst., Vienna, but now lost and probably destroyed in World War II except for the distal epiphysis of a radius, two carpals, one metacarpal, one phalanx, the left innominate, and a cervical vertebra.

Type Locality: Hainburg a. d. Donau, Austria.

Formation: Zweite Mediterranstufe.

Age: Middle Miocene (Badenian).

Remarks: Status and affinities uncertain.

Subfamily HYDRODAMALINAE (Palmer, 1895 [1833]) Simpson, 1932

RYTINEAE Brandt, 1833, *Mém. Acad. Sci. St.-Petersbourg* (6)2: 115, Nov. 1833. [Proposed as tribe.]

RYTINADAE Gray, 1843, *List Spec. Mamm. Brit. Mus.*: xxiii. [Proposed as family.]

RHYTINEA Brandt, 1846, *Mém. Acad. Sci. St.-Petersbourg* (6)5: 141. [Proposed as tribe or family.]

RYTINIDAE Girard, 1852, *Proc. Amer. Assoc. Adv. Sci.* 6: 326, 328. [Proposed as family.]

HYDRODAMALIDAE Palmer, 1895, *Science* (2)2(40): 450, Oct. 4, 1895. [Proposed as family.]

HYDRODAMALINAE Simpson, 1932, *Bull. Amer. Mus. Nat. Hist.* 59(8): 424, Sep. 6, 1932.

HALIANASSINAE Reinhart, 1959 [partim], *Univ. Calif. Publ. Geol. Sci.* 36(1): 8, July 24, 1959.

[Other names based on *Rhytina* omitted.]

Type Genus: *Hydrodamalis* Retzius (= *Rytina* Illiger).

Dusisiren Domning, 1978

Dusisiren Domning, 1978, *Univ. Calif. Publ. Geol. Sci.* 118: 13, Sep. 8, 1978. [Type, by original designation: *Metaxytherium jordani* Kellogg.]

Dusisiren reinharti Domning, 1978

Halianassa sp. indet., Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 44, July 24, 1959.

M[etaxytherium] n. sp., Domning, 1972, *Proc. Pacif. Coast Mioc. Biostrat. Symp., S.E.P.M.:* 147, 149.

Dusisiren reinharti Domning, 1978, *Univ. Calif. Publ. Geol. Sci.* 118: 14, Sep. 8, 1978.

Holotype: UCMP 39581, most of skull and skeleton of juvenile.

Type Locality: UCMP loc. V5023, Punta Pequeña, Baja California Sur, Mexico.

Formation: Ysidro Formation, Ysidro Sandstone Member.

Age: Early Miocene (Vaquerosian-Temblorian).

Remarks: Inadequately known; status uncertain.

Dusisiren jordani (Kellogg, 1925) Domning, 1978

Metaxytherium jordani Kellogg, 1925, *Carnegie Inst. Wash. Publ.* 348: 59, Apr. 1925.

Metaxytherium petersi Abel, sensu VanderHoof, 1941, *Bull. Geol. Soc. Amer.* 52(12): 1985, Dec. 1, 1941. [Based on UCMP 3794.]

H[alianassa]. jordani (Kellogg) Reinhart, 1951, *Univ. Calif. Publ., Bull. Dept. Geol. Sci.* 28(9): 210, Feb. 16, 1951.

Halianassa vanderhoofi Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 23, July 24, 1959. [Holotype: UCMP 3794, skull and partial skeleton. Type locality: Scotts Valley, near Santa Cruz, California; Santa Margarita Formation, Mohnian-Delmontian, early Clarendonian.]

M[etaxytherium]. vanderhoofi (Reinhart) Shikama and Domning, 1970, *Trans. Proc. Palaeont. Soc. Japan* (2)80: 395, Dec. 20, 1970.

Dusisiren jordani (Kellogg) Domning, 1978, *Univ. Calif. Publ. Geol. Sci.* 118: 21, Sep. 8, 1978.

Holotype: USNM 11051, cranium, vertebrae, ribs, and metacarpal of old adult.

Type Locality: Celite Company #5 Quarry, Lompoc, Santa Barbara County, California, U.S.

Formation: Sisquoc Formation.

Age: Late Miocene (early Delmontian).

Dusisiren dewana Takahashi, Domning, and Saito, 1986

Dusisiren Species D, Domning, 1978, *Univ. Calif. Publ. Geol. Sci.* 118: 72, Sep. 8, 1978.

Dusisiren dewana Takahashi, Domning, and Saito, 1986, *Trans. Proc. Palaeont. Soc. Japan*, N.S., No. 141: 300, April 30, 1986.

Holotype: Yamagata Prefectural Museum, Yamagata,

Japan, unnumbered, skull and anterior half of skeleton.

Type Locality: Bed of Mogami River near E bank, about 100 m upstream of Yoh Iron Bridge, hamlet of Yoh, Ohe Town, Nishimurayama County, Yamagata Prefecture, Honshu, Japan.

Formation: Hongo Formation, Hashigami Sandstone Member.

Age: Late Miocene (*Denticulopsis katayamae* Diatom Zone), 9.0–10.4 Ma.

Hydrodamalis Retzius, 1794

Manati Steller, 1774, *Beschr. Lande Kamt.:* 97. [Used as uninominal, referring to the Commander Islands species. Placed on Official Index of Rejected and Invalid Generic Names by ICZN Opinion 1320, *Bull. Zool. Nomencl.* 42(2): 175–176, June 1985, with the Name Number 2162. First binominal use by Zimmermann, 1780; type, by monotypy: *M. gigas* Zimmermann, which is a senior objective synonym of *Hydrodamalis stelleri* Retzius and therefore the correct name of the type species of *Hydrodamalis*.]

Hydrodamalis Retzius, 1794, *K. Svensk. Vetenskapsacad. Handl.* (2)15: 292, Oct.–Dec. 1794. [Type, by monotypy: *H. stelleri* Retzius (but see above). Generic name upheld in preference to *Rhytina* by ICZN Opinion 90, 1925, *Smithson. Misc. Colls.* 73(3): 39; placed on Official List of Generic Names by Opinion 1320, *Bull. Zool. Nomencl.* 42(2): 175–176, June 1985, with the Name Number 2262.]

Sirene Link, 1794, *Beytr. Naturgesch.* 1(1): 67. [Type, by monotypy: *Trichechus Manatus borealis* Gmelin.]

Rytina Illiger, 1811, *Prodromus Syst. Mamm. Av.:* 141. [Incorrect transliteration, but “correct original spelling” under the Code. Type, by monotypy: *Trichechus Manatus borealis* Gmelin.]

Dystomus Fischer von Waldheim, 1813, *Zoognosia*, ed. 3, 1: 15, 19. [Not associated with any species name.]

Nepus Fischer von Waldheim, 1814, *Zoognosia*, ed. 3, 3: 640. [Type, by monotypy: *Hydrodamalis stelleri* Retzius.]

“Stellera,” Bowdich, 1821, *Anal. Nat. Class. Mamm.:* 86. [Used as vernacular name for *Rytina*; not intended as a new generic name, though cited by all major nomenclators.]

Stellerus Desmarest, 1822, *Mammalogie* 2: 510. [Type, by monotypy: *Trichechus manatus borealis* Gmelin.]

Rhytina Berthold, 1827, *Latreille's Nat. Fam. Thierr.:* 62. [Unjustified emendation of *Rytina* Illiger, despite correctness of transliteration.]

Haligna Billberg, 1827, *Syn. Faunae Scand.* 1(1): Tab. A, dorso 1 and p. 33. [Type, by monotypy: *Trichechus Manatus borealis* Gmelin.]

Rhytine Burmeister, 1837, *Handb. Naturgesch.:* 793. [Emendation of *Rhytina*? Type, by monotypy: *Hydrodamalis stelleri* Retzius.]

Hydrodamalis cuetae Domning, 1978

Hydrodamalis n. sp., Domning, 1971, *Geol. Soc. Amer. Abstrs. Progs.* 3(2): 110, Feb. 1971.

Hydrodamalis cuetae Domning, 1978, *Univ. Calif. Publ. Geol. Sci.* 118: 75, Sep. 8, 1978.

Hydrodamalis spissus [sic] Furusawa, 1988, *A New Species of Hydrodamaline Sirenia from Hokkaido, Japan:* 13. [Incorrect original spelling; properly “*H. spissa*.” Holotype: Takikawa Mus. of Art & Nat. Hist. no. 0001, partial skull and skeleton. Type locality: Sorachi River near Takikawa City, Hokkaido, Japan; Takikawa Formation, Horokura Member, Early Pliocene.]

Hydrodamalis spissa Furusawa, 1990, *Prof. Akira Kasugai Mem. Vol.:* 100, March 1990. [Justified emendation.]

Holotype: UCMP 86433, skull and much of skeleton of immature individual.

Type Locality: UCMP loc. V70148, Avila Beach, San Luis

Obispo County, California, U.S.

Formation: Pismo Formation, Squire Member.

Age: Late Pliocene (Blancan).

Hydrodamalis gigas (Zimmermann, 1780) Palmer, 1895

- Phoca manatus* (Linnaeus) Brisson, 1762 [partim], *Regnum Animale*: 164.
Manati gigas Zimmermann, 1780, *Geogr. Gesch. Mensch. vierf. Thiere* 2: 426.
 [Placed on the Official List of Specific Names by ICZN Opinion 1320, *Bull. Zool. Nomencl.* 42(2): 175–176, June 1985, with the Name Number 2965.]
Manati Balaenurus Boddaert, 1785, *Elenchus Anim.* 1: 173. [Based on Pennant's "Whale-tailed Manati."]
Trichechus Manatus borealis Gmelin, 1788, *C. Linné Syst. Nat.*, ed. 13, vol. 1: 61.
[Hydrodamalis]. Stelleri Retzius, 1794, *K. Svensk. Vetenskapsacad. Handl.* (2)15: 292, Oct.–Dec. 1794.
[Irene]. borealis (Gmelin) Link, 1794, *Beytr. Naturgesch.* 1(1): 68.
[Manatus]. borealis (Gmelin) Link, 1795, *Beytr. Naturgesch.* 1(2): 110.
Manatus Balaenurus (Boddaert) Bechstein, 1800, *Thomas Pennant's Allgemeine Uebersicht der vierfüßigen Thiere* 2: 732.
Trichechus Borealis (Gmelin) Shaw, 1800, *Gen. Zool.* 1: 240.
Nepus Stelleri (Retzius) Fischer von Waldheim, 1814, *Zoognosia*, ed. 3, 3: 641.
Rytina borealis (Gmelin) Illiger, 1815, *Abh. Akad. Wiss. Berlin* 1804–1811: 64, 75. [Illiger referred this species to *Rytina* in 1811 (*Prodromus Syst. Mamm. Av.*: 141), but did not actually publish the combination.]
Rytina cetacea Illiger, 1815, *Abh. Akad. Wiss. Berlin* 1804–1811: 68.
Rytina stelleri (Retzius) Desmarest, 1819, *Nouv. Dict. d'Hist. Nat.* 29: 574.
Stellerus borealis (Gmelin) Desmarest, 1822, *Mammalogie* 2: 510.
Halogyna borealis (Gmelin) Billberg, 1827, *Syn. Faunae Scand.* 1(1): 33.
Rh[ytine]. Stelleri (Retzius) Burmeister, 1837, *Handb. Naturgesch.*: 793.
Rytina gigas (Zimmermann) Gray, 1850, *Cat. Specs. Mamm. Coll. Br. Mus.* 1: 144.
Manatus gigas (Zimmermann) Lucas, 1891, *Rept. U.S. Natl. Mus.* 1888–1889: 623.
Hydrodamalis gigas (Zimmermann) Palmer, 1895, *Science* (2)2(40): 449, Oct. 4, 1895.
 [Combinations with *Rytina* omitted.]

Type: No type specimens have been formally designated. All the above names are based on the verbal description by Steller (1751) and are therefore objective synonyms. The masticatory plates illustrated in the latter paper, which are preserved in St. Petersburg, are the only surviving specimens of the type series and therefore constitute the types; skin fragments attributed to this species are of questionable identity (see Domning, 1978b: 132).

Type Locality: Bering Island, Commander Islands.

Age: Recent; also reported from the Pleistocene.

Subfamily DUGONGINAE (Gray, 1821) Simpson, 1932

- HALICOREAE Brandt, 1833 [partim], *Mém. Acad. Sci. St.-Pétersbourg* (6)2: 114, Nov. 1833. [Proposed as tribe.]
 HALICOREA Brandt, 1846 [partim], *Mém. Acad. Sci. St.-Pétersbourg* (6)5: 132. [Proposed as tribe or family.]
 HALICORINAE Abel, 1913, *Palaeontographica* 59: 358.
 RHYTIODINAE Abel, 1914, *Vorzeitl. Säuget.*: 217. [Incorrect original spelling; properly "Rytiodontinae." Type Genus: *Rytiodus* Lartet. Included taxa transferred to Dugonginae by Domning (1994).]
 DUGONGINAE Simpson, 1932, *Bull. Amer. Mus. Nat. Hist.* 59(8): 424, Sep. 6, 1932.

- RHYTIODINAE Kretzoi, 1941, *Ann. Hist.-Nat. Mus. Nat. Hungar., Pars Min. Geol. Pal.* 34: 155. [Justified emendation of Rhytiodontinae Abel.]
 THELRIOPINAE Pilleri, 1987, *Sirenia of the Swiss Molasse*: 65. [Replacement name for Rhytiodontinae Abel.]

Type Genus: *Dugong* Lacépède (= *Halicore* Illiger).

Crenatosiren Domning, 1991

- Crenatosiren* Domning, 1991, *Jour. Vert. Paleo.* 11(3): 398, Sep. 30, 1991.
 [Type, by original designation: *Halitherium olseni* Reinhart.]

Crenatosiren olseni (Reinhart, 1976) Domning, 1991

- Halitherium olsenensis* Reinhart, 1971, *Plaster Jacket* No. 15: [8], Oct. 1, 1971. [Nomen nudum.]
Halitherium olseni Reinhart, 1976, *Bull. Fla. St. Mus., Biol. Sci.* 20(4): 238, July 9, 1976.
Crenatosiren olseni (Reinhart) Domning, 1991, *Jour. Vert. Paleo.* 11(3): 398, Sep. 30, 1991.

Holotype: UF/FGS V6094, skull and partial skeleton of old adult.

Type Locality: FGS loc. 82, east bank of Suwannee River about 1.6 miles "below" [or more likely, in a straight line west of] White Springs, Hamilton County, Florida, U.S.; probably in NW part of Sec. 11, T. 2 S, R. 15 E, White Springs West 7.5' Quadrangle (1961).

Formation: Parachucla Formation.

Age: Late Oligocene (early Arikarean).

Corystosiren Domning, 1990

- Corystosiren* Domning, 1990, *Jour. Vert. Paleo.* 10(3): 361, Sep. 20, 1990.
 [Type, by original designation: *C. varguezi* Domning.]

Corystosiren varguezi Domning, 1990

- Corystosiren varguezi* Domning, 1990, *Jour. Vert. Paleo.* 10(3): 361, Sep. 20, 1990.

Holotype: IGM 4569, nearly complete skull of young adult, with fragments of vertebrae and ribs.

Type Locality: IGM loc. 2398, Rancho Chapas, about 1 km SSW of Km 40.5 on road from Tizimin east to Colonia Yucatan, State of Yucatan, Mexico.

Formation: Carrillo Puerto Formation.

Age: Early Pliocene.

Dioplotherium Cope, 1883

- Dioplotherium* Cope, 1883, *Proc. Acad. Nat. Sci. Philadelphia* 1883: 52, Mar. 27, 1883; *Amer. Naturalist* 17: 309, March 1883. [Type, by monotypy: *D. manigaulti* Cope.]

Dioplotherium manigaulti Cope, 1883

- Dioplotherium manigaulti* Cope, 1883, *Proc. Acad. Nat. Sci. Philadelphia* 1883: 53, Mar. 27, 1883; *Amer. Naturalist* 17: 309, March 1883.
Metaxytherium manigaulti (Cope) Allen, 1926, *Bull. Mus. Comp. Zool.* 67(14):

458, July 1926. [Kellogg referred this species to *Metaxytherium* in 1925 (*Carnegie Inst. Wash. Publ.*, 348: 59), but did not actually publish the combination.]

Holotype: ChM PV2896, premaxilla fragment and tusk.

Type Locality: Bed of Wando River near Cainhoy, South Carolina, U.S. (Manigault, 1886).

Formation: Unknown.

Age: Uncertain; Late Oligocene or Early Miocene.

Dioplotherium allisoni (Kilmer, 1965) Domning, 1978

Halianassa(?) *allisoni* Kilmer, 1965, *Bull. So. Calif. Acad. Sci.* 64(2): 58, Apr.–Jun. 1965.

Metaxytherium allisoni (Kilmer) Domning, 1971, *Geol. Soc. Amer. Abstrs. Progs.* 3(2): 110, Feb. 1971.

Dioplotherium allisoni (Kilmer) Domning, 1978, *Univ. Calif. Publ. Geol. Sci.* 118: 5, Sep. 8, 1978.

Holotype: UCMP 47250, incomplete mandible and other fragments.

Type Locality: UCMP loc. V5734, La Purísima, Baja California Sur, Mexico.

Formation: Ysidro Formation, Ysidro Sandstone Member.

Age: Early Miocene (Vaquerosian-Temblorian).

Dugong Lacépède, 1799

Dugong Lacépède, 1799, *Tabl. Div. Mamm.*: 17. [Type, by monotypy: *Rosmarus indicus* Boddaert.]

Platystomus Fischer von Waldheim, 1803 [*Non Platystoma* Meigen, 1803 (Insecta)], *Das Nationalmuseum Naturgesch. zu Paris* 2: 353. [Type, by monotypy: *Trichechus Dugong* Gmelin.]

Dugungus Tiedemann, 1808, *Zoologie*, vol. 1: 554. [Type, by monotypy: *Rosmarus indicus* Boddaert.]

Halicore Illiger, 1811, *Prodromus Syst. Mamm. Av.*: 140. [Type, by monotypy: *Trichechus Dugong* Gmelin.]

Amblychilus Fischer von Waldheim, 1814, *Zoognosia*, ed. 3, vol. 3: 638. [Type, by monotypy: *Trichechus Dugong* Müller.]

Dugongidus Gray, 1821, *London Med. Reposit.* 15: 309. [Type, by monotypy: *Trichechus Dugong* Gmelin.]

Halicora Fleming, 1822, *Phil. Zool.* 2: 204. [Unjustified emendation of *Halicore* Illiger.]

Dugong dugon (Müller, 1776) Palmer, 1895

Phoca manatus (Linnaeus) Brisson, 1762 [partim], *Regnum Animale*: 164.

Trichechus [sic] *dugon* Müller, 1776, *Des Ritters Carl v. Linné ... vollst. Natursyst., Suppl.*: 21.

Trichechus dugung Erxleben, 1777, *Syst. Regni Anim.*: 599.

Rosmarus indicus Boddaert, 1785, *Elenchus Anim.* 1: 169. [Based on Buffon's "Dugon" and Pennant's "Indian Walrus."]

Trichechus Dugong Gmelin, 1788, *C. Linné Syst. Nat.*, ed. 13, vol. 1: 60.

Tr[ichechus]. australis Retzius, 1794, *K. Svensk. Vetenskapsakad. Handl.* (2)15: 291, Oct.–Dec. 1794. [*Non T. australis* (Gmelin) Shaw, 1800; based on Buffon's "Dugon."]

Dugong indicus (Boddaert) Lacépède, 1799, *Tabl. Div. Mamm.*: 17.

Manatus indicus (Boddaert) Daudin, 1802, *Hist. Nat. of Buffon, Didot Edition, "Quadrupeds"* 14: 194. [Reference not seen.]

Platystomus Dugong (Gmelin) Fischer von Waldheim, 1803, *Das Nationalmuseum Naturgesch. zu Paris* 2: 353.

D[ugungus]. indicus (Boddaert) Tiedemann, 1808, *Zoologie*, Vol. 1: 554.

Halicore Dugong (Gmelin) Illiger, 1811, *Prodromus Syst. Mamm. Av.*: 141.

Halicore cetacea Illiger, 1815, *Abh. Akad. Wiss. Berlin* 1804–1811: 79.

Dugongidus dugong (Gmelin) Gray, 1821, *London Med. Reposit.* 15: 309.

Halicore indicus [sic] (Boddaert) Desmarest, 1822, *Mammalogie*: 509.

Halicore Syren Brookes, 1828 or 1830?, *Cat. Mus.*: 40. [Reference not seen.]

Halicora Hemprichii Ehrenberg, 1832, *Symb. Phys., Mamm.* II: sign. k, Sep. 1832. [Type locality: Barkan Is., Red Sea. Reference not seen.]

Halicora Lottum Ehrenberg, 1832, *Symb. Phys., Mamm.* II: sign. k, Sep. 1832. [Type locality: Hauakel Is., Red Sea. Reference not seen.]

Halicore tabernaculi Rüppell, 1834, *Mus. Senck.* 1(2): 113. [Holotype: Senckenberg Mus. no. 1510, skin and skeleton of female. Type locality: Noura Is., Dahalak Archipelago, Ethiopia.]

Manatus Dugong (Erxleben) de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 57, 135.

Manatus Tabernaculi (Rüppell) de Blainville, 1844, *Ostéogr.*, Genre *Manatus*: 78.

Halicore australis (Retzius) Owen in Jukes, 1847, *Narrative ... Voyage of H.M.S. "Fly,"* 2: 323. [Reference not seen.]

Halicore malayana Owen, 1875, *Quart. Jour. Geol. Soc. London* 31: 560. [Nomen nudum; lapsus?]

Dugong dugon (Müller) Palmer, 1895, *Science* (2)2(40): 450, Oct. 4, 1895.

Halicore brevirostris De Vis, 1905, *Ann. Queensland Mus.* No. 6: 30. [Holotype: a fossilized rostral fragment in the Queensland Museum. Type locality: Woodlark Island, Papua New Guinea (Pleistocene?).]

Dugong australis (Retzius): [author of combination not identified].

Dugong hemprichii (Ehrenberg): [author of combination not identified].

Dugong dugong [sic] *tabernaculi* (Rüppell) Gohar, 1957, *Publ. Mar. Biol. Stn. Al-Ghardaqa* No. 9: 40.

Dugong dugon australe [sic] (Retzius) Kleinschmidt, 1982, *Braunsch. Naturk. Schr.* 1(3): 372, Oct. 1982.

Dugong dugon dugon (Müller) Kleinschmidt, 1982, *Braunsch. Naturk. Schr.* 1(3): 372, Oct. 1982.

Dugong dugon hemprichii (Ehrenberg) Kleinschmidt, 1982, *Braunsch. Naturk. Schr.* 1(3): 372, Oct. 1982.

Type: No types of the species have been formally designated.

Type Locality: Indian Ocean and East Indies. Müller (1776) described the species' range as extending from the Cape of Good Hope to the Philippines and beyond, to the South Pole and Strait of Magellan!

Age: Recent; also may occur in the Pleistocene.

Rytiodus Lartet, 1866

Rytiodus Lartet, 1866, *Bull. Soc. Géol. France* (2)23: 682. [Incorrect transliteration, but "correct original spelling" under the *Code*. Type, by monotypy: *R. capgrandi* Lartet.]

Rhytidus Delfortrie, 1872, *Act. Soc. Linn. Bordeaux* 28: 282. [Apparently the earliest use of this spelling. Unjustified emendation of *Rytiodus* Lartet, despite correctness of transliteration. Junior homonym of *Rhytidus* Kner, 1858 (Pisces).]

Thelriope Pilleri, 1987, *Sirenia of the Swiss Molasse*: 65. [Replacement name for *Rhytidus* "Lartet."]

Rytiodus capgrandi Lartet, 1866

Rytiodus Capgrandi Lartet, 1866, *Bull. Soc. Géol. France* (2)23: 682.

H[alitherium]. capgrandi (Lartet) Cope, 1883, *Proc. Acad. Nat. Sci. Philadelphia* 1883: 52.

Rhytidus Capgrandi (Lartet) Woodward, 1885, *Quart. Jour. Geol. Soc. London* 41: 470. [Earliest use of this spelling and combination?]

Thelriope capgrandi (Lartet) Pilleri, 1987, *Sirenia of the Swiss Molasse*: 65.

Syntypes: MNHN MBA 1–9, two pairs of tusks of different individuals, plus other cranial and rib fragments.

Type Locality: Bournic, Lot-et-Garonne, France.

Formation: “Calcaire marin coquillier (étage de Bazas).”

Age: Early Miocene (Aquitanian).

Xenosiren Domning, 1989

Xenosiren Domning, 1989, *Jour. Vert. Paleo.* 9(4): 429, Dec. 19, 1989. [Type, by original designation: *X. yucateca* Domning.]

Xenosiren yucateca Domning, 1989

Xenosiren yucateca Domning, 1989, *Jour. Vert. Paleo.* 9(4): 429, Dec. 19, 1989.

Holotype: IGM 4190, fragments of a skull and of a right incisor tusk, and right and left M³.

Type Locality: IGM loc. 2397, Noc Ac, 10–15 km NW of Merida, State of Yucatan, Mexico.

Formation: Carrillo Puerto Formation?

Age: Late Miocene or Early Pliocene (Hemphillian).

Dugonginae incertae sedis

“*Halitherium*” *bellunense* de Zigno, 1875

Halitherium Bellunense de Zigno, 1875, *Mem. R. Ist. Veneto Sci. Lett. Arti* 18: 438.

Metaxytherium Bellunense (de Zigno) Lepsius, 1882, *Abh. Mittelh. Geol. Ver.* 1: 180.

Holotype: MGP unnumbered, associated skullcap, left and right zygomatic processes, fragment of left jugal, two fragments of maxillae with two right molars and left P⁴ and DP⁵–M², left premaxilla with tusk, five vertebrae, and six rib fragments.

Type Locality: Cavarzana, Valle delle Guglie, near Belluno, Italy.

Formation: Glauconitic sands “at extreme base of the Miocene” (Depéret and Roman, 1920).

Age: Early Miocene (late Aquitanian or early Burdigalian; Depéret and Roman, 1920).

Remarks: Status and affinities uncertain.

Dugongidae incertae sedis

Anisosiren Kordos, 1979

Anisosiren Kordos, 1979, *Magyar Állam. Földt. Int. Évi Jelent.* 1977: 313. [Type, by original designation: *A. pannonica* Kordos.]

Anisosiren pannonica Kordos, 1979

Anisosiren pannonica Kordos, 1979, *Magyar Állam. Földt. Int. Évi Jelent.* 1977: 313.

Holotype: FIV 11748 (Vt. 77), left maxillary fragment

with M^{1–3}, fragment of P⁴, and independent ?P³.

Type Locality: Abandoned mine, XXIII/D at Oroszlány, Vértes Mountains, western Hungary.

Formation: Unnamed.

Age: Middle Eocene (Lutetian).

Remarks: Status and affinities uncertain.

Indosiren von Koenigswald, 1952

Indosiren von Koenigswald, 1952, *K. Ned. Akad. Wetens., Proc. Sect. Sci., Ser. B (Phys. Sci.)* 55(5): 611. [Type, by monotypy: *I. javanensis* von Koenigswald.]

Indosiren javanensis von Koenigswald, 1952

Indosiren javanense [sic] von Koenigswald, 1952, *K. Ned. Akad. Wetens., Proc. Sect. Sci., Ser. B (Phys. Sci.)* 55(5): 611. [Incorrect original spelling.]

Holotype: Upper left molar.

Type Locality: Tji Padaringan, near Tji Merang, Njalindung, Western Java.

Formation: Horizon of *Vicarya callosa*.

Age: “Upper Miocene, probably Sarmatian” (v. Koenigswald, 1952).

Remarks: Status and affinities uncertain.

Indosiren koenigswaldi Sahni and Mishra, 1975

Indosiren koenigswaldi Sahni and Mishra, 1975, *Monogr. Palaeont. Soc. India* No. 3: 37, Apr. 7, 1975.

Holotype: LUVF 11149, fragment of left maxilla with M^{1–3}.

Type Locality: Matanomadh, western Kutch, India.

Formation: “Grey coloured shales of Aida Stage” (Sahni and Mishra, 1975).

Age: Lower Miocene.

Remarks: Status and affinities uncertain.

Miodugong Deraniyagala, 1969

Miodugong Deraniyagala, 1969, *J. Roy. Asiatic Soc. (Ceylon Branch)* (2)12: 97, May 15, 1969; *Loris* 11(5): 237, June 1969; *Spolia Zeylanica* 31(2): 563; *J. Palaeont. Soc. India* 13: 22. [Type, by monotypy: *M. brevicranius* Deraniyagala.]

Miodugong brevicranius Deraniyagala, 1969

Miodugong brevicranius Deraniyagala, 1969, *J. Roy. Asiatic Soc. (Ceylon Branch)* (2)12: 97, May 15, 1969; *Loris* 11(5): 237, June 1969; *Spolia Zeylanica* 31(2): 563; *J. Palaeont. Soc. India* 13: 22.

Holotype: Fragment of left parietal and squamosal.

Type Locality: Near Arna Kallu, about 15 miles N of Puttalam, Sri Lanka.

Formation: Malu Member of Kudremale Stage, Jaffna Series.

Age: Miocene.

Remarks: Status and affinities uncertain.

Paralitherium Kordos, 1977

Paralitherium Kordos, 1977, *Magyar Állam. Földt. Int. Évi Jelent.* 1975: 350. [Type, by original designation: *P. tarkanyense* Kordos.]

Paralitherium tarkanyense Kordos, 1977

Paralitherium tarkanyense Kordos, 1977, *Magyar Állam. Földt. Int. Évi Jelent.* 1975: 350.

Holotype: FIV 10934 (Vt. 57), a pair of mandibles.

Type Locality: Felsőtárkány, Bükk Mountains, northeastern Hungary.

Formation: "Base of Upper Eocene marine sequence" (Kordos, 1977); Nagysáp Limestone Formation.

Age: Late Eocene (Priabonian).

Remarks: Status and affinities uncertain.

Prohalicore Flot, 1887

Prohalicore Flot, 1887, *Bull. Soc. Géol. France* (3)15: 135. [Type, by monotypy: *P. dubaleni* Flot.]

Prohalicore dubaleni Flot, 1887

Prohalicore dubaleni Flot, 1887, *Bull. Soc. Géol. France* (3)15: 135.

Holotype: Mus. de Mont-de-Marsan, partial mandible.

Type Locality: Quarry at Odon, near Tartas, Landes, France.

Formation: ?

Age: Middle Miocene (Helvetian).

Remarks: Status and affinities uncertain.

Sirenavus Kretzoi, 1941

Sirenavus Kretzoi, 1941, *Ann. Mus. Nat. Hung., Pars Min. Geol. Pal.* 34: 147. [Type, by monotypy: *S. hungaricus* Kretzoi.]

Sirenavus hungaricus Kretzoi, 1941

Sirenavus hungaricus Kretzoi, 1941, *Ann. Mus. Nat. Hung., Pars Min. Geol. Pal.* 34: 147.

Holotype: Hung. Nat. Hist. Mus. (Budapest), Geol.-Pal. Dept. no. P.V. 1., partial skull and mandibles, with vertebrae and ribs (the latter now lost; Kordos, 1981).

Type Locality: Felsőgalla, Hungary.

Formation: Szóc Limestone Formation, *Nummulites perforatus* Zone.

Age: Middle Eocene (Lutetian).

Remarks: Status and affinities uncertain.

INDETERMINATE NOMINAL TAXA OF SIRENIANS

Eotherium Markgrafi Abel, 1913, *Palaeontographica* 59: 319, 336–337.

[Based on specimen(s) from the Eocene of Egypt. Nomen nudum; see Sickenberg, 1934b: 41.]

Manatus antiquus Leidy, 1856, *Proc. Acad. Nat. Sci. Philadelphia* 8: 165, Sep. 1856. [Based on specimens from the Miocene and ?Pleistocene of New Jersey, Virginia, and South Carolina, U.S. Nomen dubium.]

SYNONYMS:

Halitherium antiquum (Leidy) Allen, 1926, *Bull. Mus. Comp. Zool.* 67(14): 455, July 1926.

Trichechus antiquus (Leidy) Hay, 1902, *Bull. U.S. Geol. Surv.* 179: 583.

Manatus inornatus Leidy, 1873, *Rept. U.S. Geol. Surv. Terr.* 1: 336. [Based on a specimen from the ?Pleistocene of South Carolina, U.S. Nomen dubium.]

SYNONYM:

Trichechus inornatus (Leidy) Hay, 1902, *Bull. U.S. Geol. Surv.* 179: 584.

Trachypleurotherium Dilg, 1909, *Gegenbaurs Morph. Jb.* 39(1): 90, Mar. 2, 1909. [Based on specimens from a "chalk formation" (presumably the Miocene Pirabas Fm.) on the coast of Pará, Brazil, evidently in the Museu Goeldi, Belém. Nomen nudum.]

TAXA THAT HAVE BEEN INCORRECTLY OR DOUBTFULLY REFERRED TO THE SIRENIA

Anoplonassa Cope, 1869; *A. forcipata* Cope, 1869 [Cetacea]

Antaodon Ameghino, 1886; *A. cinctus* Ameghino, 1886 [Tayassuidae]

Chronozoon De Vis, 1884; *C. australe* De Vis, 1884 [Diprotodontidae?]

Crassiitherium Van Beneden, 1871; *C. robustum* Van Beneden, 1871 [partim] [Based on part of a ?reptile skull and 8 sirenian vertebrae]

Cymatotherium Kaup, 1841; *C. antiquum* Kaup, 1841 [Proboscidea]

SYNONYM: *Cyotherium* Simpson, 1932 [lapsus]

Deinotherium Kaup, 1829; *D. giganteum* Kaup, 1829 [Proboscidea]

Florentinoameghinia Simpson, 1932; *F. mystica* Simpson, 1932 [Mammalia incertae sedis]

Hemicaulodon Cope, 1869; *H. effodiens* Cope, 1869 [= *Odobenus*]

Hippopotamus minutus Cuvier, 1824 (= *Halicore minuta* (Cuvier) Bronn, 1838) [Hippopotamidae]

Ischyrotherium Leidy, 1856; *I. antiquum* Leidy, 1856 [Reptilia]

Ishatherium Sahni and Kumar, 1980; *I. subathuense* Sahni and Kumar, 1980 [Anthracobunidae]

Lophiodolodus Stirton, 1947; *L. chaparralensis* Stirton, 1947 [Mammalia incertae sedis, possibly Sirenia]

Manatus giganteus DeKay, 1842 (= *Trichechus giganteus* (DeKay) Case, 1904) [Cetacea]

Manatus maeoticus von Eichwald, 1850 [Phocidae?]

Pachyacanthus Brandt, 1873; *P. suessi* Brandt, 1873; *P. trachyspondylus* Brandt, 1873 [Cetacea]

Toxodon Owen, 1840 [Notoungulata]

Trichechus manatus siren Kerr, 1792, *Anim. Kingdom*: 120. [Based on Steller's "sea-ape." Nomen nudum.]

SYNONYMS:

Manatus simininus Bechstein, 1800, *Thomas Pennant's Allgemeine Uebersicht der vierfüßigen Thiere* 2: 732. [Nomen nudum.]

Trichechus? Hydropithecus Shaw, 1800, *Gen. Zool.* 1: 247. [Nomen nudum.]

Manatus? Simia Illiger, 1815, *Abh. Akad. Wiss. Berlin* 1804–1811: 64. [Nomen nudum.]

Manatus? Hydropithecus (Shaw) Fischer, 1829, *Synop. Mamm.*: 502. [Nomen nudum.]

Hydropithecus simia (Illiger) Gloger, 1842, *Gemeinnütz. Hand- u. Hilfsbuch Naturg.* 1: 166. [new genus; nomen nudum.]

Order DESMOSTYLIA Reinhart, 1953

DESMOSTYLIFORMES Hay, 1923, *Pan-Amer. Geologist* 39: 109, March 1923. [Proposed as a suborder of the Sirenia.]

DESMOSTYLOIDEA Abel, 1933, in R. Dittler et al. (eds.), *Handwörterbuch der*

Naturwissenschaften (ed. 2), 8: 875. [Proposed as an order within the Subclass Multituberculata. Nomen oblitum.]

DESMODONTIA Kishida, 1933, *Mammalia*: [page?]. [Proposed as a suborder within the Order Multituberculata. Nomen oblitum. Reference not seen.]

DESMOSTYLIA Reinhart, 1953, *Jour. Geol.* 61(2): 187, March 1953.

[N.B.: The following names have been given to families within the Desmostylia, but the assignment of genera to these nominal families has not been agreed upon.]

DESMOSTYLIDAE Osborn, 1905, *C.R. 6me Congr. Internat. Zool., Session de Berne*, 1904: 109.

"Family PALEOPARADOXIA" Reinhart, 1953, *Jour. Geol.* 61(2): 187, March 1953. [Based on an unavailable nominal genus; also incorrect spelling.]

CORNWALLIUSIDAE Shikama, 1957, *Nat. Sci. and Museum* 24(1/2): 16. [Incorrect original spelling; properly "Cornwalliidae."]

CORNWALLIIDAE Shikama, 1966, *Palaeont. Soc. Japan Spec. Paper* 12: 153, Sep. 20, 1966. [Justified emendation of Cornwalliidae Shikama, 1957.]

PALEOPARADOXIDAE [sic] Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 94, July 24, 1959. [Incorrect original spelling; properly "Paleoparadoxiidae."]

BEHEMOTOPSIDAE Inuzuka, 1987, *Prof. M. Matsui Memorial Vol.*: 16.

Behemotops Domning, Ray, and McKenna, 1986

Behemotops Domning, Ray, and McKenna, 1986, *Smithson. Contrib. Paleobiol.* 59: 6, May 28, 1986. [Type, by original designation: *B. proteus* Domning, Ray, and McKenna.]

Behemotops proteus Domning, Ray, and McKenna, 1986

Behemotops proteus Domning, Ray, and McKenna, 1986, *Smithson. Contrib. Paleobiol.* 59: 6, May 28, 1986.

Behemotops emlongi Domning, Ray, and McKenna, 1986, *Smithson. Contrib. Paleobiol.* 59: 23, May 28, 1986. [Holotype: USNM 244033, left mandible of adult with M₃, Type locality: 183 meters SSE of Elephant Rock, Seal Rock State Wayside, Lincoln County, Oregon, U.S.; lower part of Yaquina Formation, Late Oligocene (Juanian, Zemorrian).]

Holotype: USNM 244035, right mandible of immature individual with DP₄, C, and P₃-M₃; parts of right femur and tibia; and two phalanges.

Type Locality: North shore of Olympic Peninsula, 34 km west of Port Angeles, Clallam County, Washington, U.S.

Formation: Lower part of the type section of the Pysht Formation.

Age: Middle or (more likely) late (but not latest) Oligocene (Orellan or Whitneyan).

Cornwallius Hay, 1923

Cornwallius Hay, 1923, *Pan-Amer. Geologist* 39: 107, March 1923. [Type, by monotypy: *Desmostylus sookensis* Cornwall.]

Cornwallius sookensis (Cornwall, 1922) Hay, 1923

Desmostylus hesperus Marsh, sensu Lambe in Kermode, 1917, *Rept. Prov. Mus. Nat. Hist. Victoria for 1916*: 42.

Desmostylus sookensis Cornwall, 1922, *Canad. Field-Nat.* 36(7): 122, Oct. 1922.

Cornwallius sookensis (Cornwall) Hay, 1923, *Pan-Amer. Geologist* 39: 106, March 1923.

Holotype: BCPM 486, lower molar.

Type Locality: Near mouth of Coal (Kirby) Creek, Sooke, Vancouver Island, British Columbia, Canada.

Formation: Sooke Formation.

Age: Late Oligocene (Zemorrian).

Desmostylus Marsh, 1888

Desmostylus Marsh, 1888, *Amer. Jour. Sci.* (3)35(205): 95, Jan. 1888. [Type, by monotypy: *D. hesperus* Marsh.]

Desmostylella Nagao, 1937, *Proc. Imper. Acad. Tokyo* 13(3): 82, March 1937. [Type, by monotypy: *D. typica* Nagao.]

Kronokotherium Pronina, 1957, *Dokl. Akad. Nauk SSSR* 117(2): 312. [Type, by monotypy: *K. brevimaxillare* Pronina.]

Desmostylus hesperus Marsh, 1888

Desmostylus hesperus Marsh, 1888, *Amer. Jour. Sci.* (3)35(205): 95, Jan. 1888.

Desmostylus japonicus Tokunaga and Iwasaki, 1914, *Jour. Geol. Soc. Tokyo* 21(250): 33, July 20, 1914. [Holotype: NSMT P-5600, skull, mandible, and isolated teeth of adult, described by Yoshiwara and Iwasaki (1902). Type locality: Bogahora Valley, Togari, Mizunami City, Gifu Prefecture, Japan.]

Desmostylus watasei Hay, 1915, *Proc. U.S. Natl. Mus.* 49(2113): 396. [Holotype: NSMT P-5600.]

Desmostylus cymatias Hannibal, 1922, *Jour. Mammalogy* 3(4): 239, Nov. 2, 1922. [Holotype: USNM 8191, skull of immature individual. Type locality: Spencer Creek, Yaquina Bay, Lincoln County, Oregon, U.S.]

Desmostylus californicus Hay, 1923, *Pan-Amer. Geologist* 39: 106, March 1923. [Holotype: CASG 66601.01 (formerly Stanford Univ. no. 5118), right upper molar. Type locality: Monument Peak, Santa Clara County, California, U.S.]

Desmostylus mirabilis Nagao, 1935, *Jour. Geol. Soc. Japan* 42(507): 822, Dec. 20, 1935. [Holotype: UHR 18466, skull and skeleton of adult. Type locality: Hatsuyuki-zawa, tributary of Keton River, Sakhalin, Russia.]

Desmostylus minor Nagao, 1937, *Proc. Imper. Acad. Tokyo* 13(2): 46, Feb. 1937. [Holotype: UHR 7428, right M². Type locality: Second tributary of Asanai-zawa, Honto-mati, Sakhalin, Russia.]

Desmostylella typica Nagao, 1937, *Proc. Imper. Acad. Tokyo* 13(3): 82, March 1937. [Holotype: TIU 56701, left M². Type locality: Yuda(?), Kintaiti-mura, Ninohe-gun, Iwate Prefecture, Honshu, Japan.]

Kronokotherium brevimaxillare Pronina, 1957, *Dokl. Akad. Nauk SSSR* 117(2): 312. [Holotype: Left mandible in Zoological Institute, Academy of Science, St. Petersburg. Type locality: River bluff on tributary of Rakiitinskaya River, Kronotski Region, Kamchatka, Russia.]

Desmostylus hesperus japonicus (Tokunaga and Iwasaki) Shikama, 1966, *Palaeont. Soc. Japan Spec. Paper* 12: 161, Sep. 20, 1966.

Desmostylus hesperus hesperus Marsh, Shikama, 1966, *Palaeont. Soc. Japan Spec. Paper* 12: 185, Sep. 20, 1966.

Desmostylus brevimaxillare [sic] (Pronina) Reinhart, 1982, *Natl. Geogr. Soc. Research Repts.* 14: 551.

Holotype: YPM 1395d, fragment of upper molar.

Type locality: East of Mission San Jose, probably in Alameda County, California, U.S. (see VanderHoof, 1937: 197-198).

Formation: Briones Formation.

Age: Middle Miocene (Briones).

Vanderhoofius Reinhart, 1959

Vanderhoofius Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 90, July 24,

1959. [Type, by original designation: *V. coalingensis* Reinhart.]

Vanderhoofius coalingensis Reinhart, 1959

Vanderhoofius coalingensis Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 90, July 24, 1959.

Holotype: UCMP 39989, left mandible.

Type Locality: UCMP loc. V4854, Garza Creek, Kings County, California, U.S.

Formation: Upper member of Temblor sandstone.

Age: Middle Miocene.

Remarks: Possibly referable to the genus *Desmostylus*.

Paleoparadoxia Reinhart, 1959

Paleoparadoxia Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 94, July 24, 1959. [Type, by original designation: *Cornwallius tabatai* Tokunaga.]

Paleoparadoxia tabatai (Tokunaga, 1939) Reinhart, 1959

Cornwallius tabatai Tokunaga, 1939, *Jubilee Publ. Comm. Prof. H. Yabe, M.I.A. Sixtieth Birthday* 1: 297.

Desmostylus japonicus Tokunaga and Iwasaki, sensu Takai, 1944, *Shigen Kagaku Kenkyusho Iho* [Misc. Rept. Research Inst. Nat. Resources] 5: 59.

Paleoparadoxia tabatai (Tokunaga) Reinhart, 1959, *Univ. Calif. Publ. Geol. Sci.* 36(1): 94, July 24, 1959.

Holotype: A premolar and molar, formerly in Waseda University, Tokyo; destroyed in World War II.

Type Locality: A tunnel in Nakayama Pass between

Aikawa and Sawane, Sawada-cho, Sado-gun (Sado Island), Niigata Prefecture, Japan.

Neotype: NSMT P-5601, skull and skeleton of immature individual. [Designated neotype by Shikama, 1966: 155.]

Locality of Neotype: Inkyo-yama hill, Kuziri, Izumi-machi, Doki City, Gifu Prefecture, Japan.

Formation of Neotype: Yamanouchi bed, Mizunami Group.

Age of Neotype: Middle Miocene.

Paleoparadoxia weltoni Clark, 1991

Paleoparadoxia weltoni Clark, 1991, *Jour. Vert. Paleo.* 11(4): 494, Dec. 31, 1991.

Holotype: UCMP 114285, skull and partial skeleton of immature individual.

Type Locality: UCMP loc. V75135, near Iverson Point, south of Point Arena, Mendocino County, California, U.S.

Formation: Skooner Gulch Formation.

Age: Early Miocene or Late Oligocene (Zemorrrian or Saucesian; Arikareean).

TAXA THAT HAVE BEEN INCORRECTLY REFERRED TO THE DESMOSTYLIA

Cryptomastodon von Koenigswald, 1933; *C. martini* von Koenigswald, 1933 [Proboscidea]

Neodesmostylus Khomenko, 1928; *N. primigenius* Khomenko, 1928 [Proboscidea]

SYNONYM: *Desmostylus Wollosowitschi* Pfizenmayer, 1927

Appendix 5

Summary of the Nomenclature of the Recent Species of Sirenians

The following list gives the correct scientific names presently in use for the subspecies, species, and higher taxonomic categories of sirenians that have lived in historic times, together with their authors and dates cited in the format specified by the *International Code of Zoological Nomenclature*. In nontaxonomic scientific writing as well as in popular works, the citations of author and date may be, and usually are, omitted. Also included, in square brackets, are the proper English vernacular equivalents for the scientific names. For fuller citations of authorship, see Appendix 4.

- Order Sirenia Illiger, 1811 [sirenians or sea cows; manatees and dugongs]
 - Family Trichechidae Gill, 1872 (1821) [trichechids; manatees in the broadest sense]
 - Subfamily Trichechinae Gill, 1872 (1821) [trichechines]
 - Genus *Trichechus* Linnaeus, 1758 [manatees in the strict sense]
 - Species *Trichechus manatus* Linnaeus, 1758 [West Indian manatee]
 - Subspecies *Trichechus manatus manatus* Linnaeus, 1758 [Antillean manatee]
 - Subspecies *Trichechus manatus latirostris* (Harlan, 1824) [Florida manatee]
 - Species *Trichechus senegalensis* Link, 1795 [West African manatee]
 - Species *Trichechus inunguis* (Natterer, 1883) [Amazonian manatee]
 - Family Dugongidae Gray, 1821 [dugongids; dugongs in the broadest sense]
 - Subfamily Dugonginae Gray, 1821 [dugongines]
 - Genus *Dugong* Lacépède, 1799 [dugongs in the strict sense]
 - Species *Dugong dugon* (Müller, 1776) [dugong]
 - Subfamily Hydrodamalinae Palmer, 1895 (1833) [hydrodamalines; North Pacific sea cows]
 - Genus *Hydrodamalis* Retzius, 1794 [Steller's sea cows]
 - Species *Hydrodamalis gigas* (Zimmermann, 1780) [Steller's sea cow—exterminated by man circa A.D. 1768]

Appendix 6

Alphabetical List of Species-Group Names of Sirenians and Desmostylians

The following lists all genera to which each nominal species or subspecies of supposed sirenian or desmostylian has been referred. To determine whether a given combination is presently regarded as a synonym of another name, see the headings in the main Index. For each nominal species here considered valid or possibly valid, the genus to which it is here referred is marked by an asterisk (*), and the ending of the specific name (if variable) is made to agree in gender with that generic name. For full synonymies, with citations of the publications in which each name and combination originally appeared, see Appendix 4.

abeli: Eosiren*, Eotherium, Eotheroides, Halitherium, Masrisiren
aegyptiacum: Eotherium, Eotheroides*, Halitherium
aequatorialis: Manatus, Trichechus
africanus: Manatus, Trichechus
alleni: Halitherium*, Felsinootherium, Metaxytherium
allisoni: Diplototherium*, Halianassa, Metaxytherium
amazonius: Trichechus
americanus: Halipaedisca, Manatus, Trichechus
angustifrons: Halitherium
antillarum: Trichechus
antillense: Halitherium*
antiquus: Cymatotherium, Halitherium, Ischyrotherium, Manatus, Trichechus
aquitaniae: Metaxytherium*
arctodites: Metaxytherium*
argoviense: Metaxytherium
atlanticus: Manatus
australis: Chronozoon, Dugong, Halicore, Manatus, Trichechus
balaenurus: Manati
beaumontii: Halitherium, Metaxytherium*
bellunense: Halitherium*, Metaxytherium
borealis: Haligyna, Manatus, Rhytine, Rytina, Sirene, Stellerus, Trichechus
brevicranius: Miodugong*
brevimaxillare: Desmostylus, Kronokotherium
brevirostris: Halicore
brocchii: Cheirotherium, Halianassa, Halitherium, Manatus, Metaxytherium
bronni: Halitherium
californicus: Desmostylus
calvertense: Metaxytherium
canhami: Halitherium, Miosiren*
capgrandi: Halitherium, Rytiodus*, Thelriope
catalaunicum: Metaxytherium
cetacea: Halicore, Rytina
chaparralensis: Lophiodolodus*
chouqueti: Halitherium
christolii: Halitherium*, Manatus, Metaxytherium
cinctus: Antaodon*

clusii: Manati, Manatus, Trichechus
 coalingensis: Desmostylus, Vanderhoofius*
 collinii: Halianassa
 cordieri: Halianassa, Halitherium, Metaxytherium
 coulombi: Eotheroides, Manatus
 crataegense: Hesperosiren, Metaxytherium*
 cuestae: Hydrodamalis*
 curvidens: Halitherium
 cuvierii: Halianassa, Halicore, Halitherium, Manatus, Metaxytherium
 cymatias: Desmostylus
 delheidi: Halitherium, Manatherium
 dewana: Dusisiren*
 dolloi: Mesosiren, Protosiren
 dubaleni: Prohalicore*
 dubia: Halitherium, Halytherium, Hippopotamus, Manatus, Protosiren*
 dugon: Dugong*, Trichechus
 dugong: Dugong, Dugongidus, Halicore, Platystomus, Trichechus
 dugung: Manatus, Trichechus
 effodiens: Hemicaulodon
 emlongi: Behemotops
 excelsum: Metaxytherium
 exunguis: Manatus, Trichechus
 floridanum: Felsinothierium, Metaxytherium*
 fluviatilis: Manatus
 forcipata: Anoplonassa*
 forestii: Felsinothierium, Metaxytherium
 fossilis: Halitherium, Manatus, Metaxytherium
 fraasi: Eosiren, Protosiren*
 gastaldi: Felsinothierium, Metaxytherium
 gervaisi: Felsinothierium, Metaxytherium
 giganteus: Deinotherium, Trichechus
 gigas: Hydrodamalis*, Manati, Manatus, Rytina
 guettardi: Halitherium, Manatus, Metaxytherium
 gunteri: Felsinothierium
 guyannensis: Manatus
 hemprichii: Dugong, Halicora
 hesperus: Desmostylus*
 hungaricus: Sirenavus*
 hydropithecus: Manatus, Trichechus
 indicus: Dugong, Dugungus, Halicore, Manatus, Rosmarus
 inornatus: Manatus, Trichechus
 intermedium: Hippopotamus, Prototherium*
 inunguis: Manatus, Trichechus*
 japonicus: Desmostylus
 javanensis: Indosiren*
 jordani: Dusisiren*, Halianassa, Metaxytherium
 kachchhense: Metaxytherium*
 kaupi: Halitherium
 kocki: Miosiren*
 koellikeri: Manatus, Trichechus
 koenigswaldi: Indosiren*
 krahuletsi: Metaxytherium*
 langewieschei: Anomotherium*
 laeolense: Halitherium

latirostris: Manatus, Trichechus
 leganyii: Haplosiren
 libyca: Eosiren*, Eotherium, Eotheroides
 limbatus: Ribodon*
 lottum: Halicora
 lovisati: Metaxytherium*
 maeoticus: Manatus
 magdalenensis: Potamosiren*, Ribodon
 majus: Eotherium*
 malayana: Halicore
 manatus: Manatus, Oxystomus, Phoca, Trichechus*
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 markgrafi: Eotherium
 martini: Cryptomastodon
 medium: Halicore, Hippopotamus, Metaxytherium*
 meyeri: Metaxytherium*
 minima: Hippopotamus, Protosiren*
 minor: Desmostylus, Halitherium, Manatus
 minutus: Halicore, Hippopotamus
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 ossivallense: Felsinootherium, Metaxytherium
 oweni: Manatus
 pannonica: Anisosiren*
 pergense: Halitherium, Metaxytherium
 petersi: Metaxytherium, Thalattosiren*
 pirabense: Sirenotherium*
 primigenius: Neodesmostylus
 proteus: Behemotops*
 raulinii: Halitherium, Trachytherium
 reinharti: Dusingiren*
 renggeri: Manatus
 riveroi: Metaxytherium
 robustum: Crassitherium
 schinzii: Halitherium*, Manatus, Pugmeodon
 senegalensis: Manatus, Trichechus*
 serresii: Felsinootherium, Halitherium, Metaxytherium*
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 simininus: Manatus
 siren: Trichechus
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 sookensis: Cornwallius*, Desmostylus
 sphaerurus: Manatus
 spissa: Hydrodamalis
 stelleri: Hydrodamalis, Nepus, Rytina, Rhytine
 strogylonurus: Manatus
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syren: Halicore
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trichecus: Manati
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uytterhoeveni: Halitherium
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- 1974 Robinson & Black (indeterminate sir.; Mioc., Tunisia)
- 1974 Robinson, P. (Tunisia)
- x 1974 Sikes, S. (TS; Nigeria; hunting, conservation; 465–470.)
- 1974 Simoneau, E.L. (DD; Afars & Issas)
- x 1975 Bertram & Sale (dugong research in East Africa; report of meeting; 389–390.)
- 1975 Happold, D.C.D.
- x 1975 Savage, R.J.G. (Eoc. & Mioc. sirs., Libya; m824.)
- x 1976 Cole & Okera (TS; Sierra Leone; 42–43.)
- 1976 Dupuy & Maigret (TS; Senegal)
- x 1976 Heinsohn, Marsh & Spain (DD; Kenya; accidental netting; 121.)
- 1976 Robinson, P. (Tunisia)
- x 1976 Tinley et al. (DD; Mozambique; 346, 348.)
- 1977 Dupuy & Verschuren (TS; Senegal)
- x 1977 Savage & Tewari (indeterminate sirs.; Middle Eoc., Somali; 218.)
- x *1978c Domning, D.P. (review of sir. fossil record in Africa; 573–581.)
- x 1979 Boaz et al. (*Metaxytherium*; Plioc., Libya; 137–139.)
- x 1979 Cascudo, L. da C. (TS; West African folk beliefs; pop. acc.; 28.)
- x 1980 Blair, D. (DD; Kenya, Djibouti; trematode *Indosolenorchis hirudinaceus*; 512–513.)
- 1981 Teleki & Baldwin (TS; Sierra Leone)
- x 1982 Boaz & Cramer (*Metaxytherium*; Plioc., Sahabi, Libya; pop. acc.; 37, 40–41.)
- x 1982c Domning, D.P. (*Metaxytherium serresii*; Plioc., Sahabi, Libya; 29–32.)
- x 1982 Ligon, S.L.H. (DD; Kenya; aerial survey; 511–513.)
- 1982 Maigret, J. (TS; Senegal)
- x *1982 Nishiwaki et al. (TS; distr.; 137–147.)
- x 1982 Robineau & Rose (DD; Djibouti; 233–238.)
- x 1982 Trotignon, J. (TS; Senegal; pop. acc.; 61–64.)
- 1984 Studenetskaya, I.S.
- x 1985 Kendall, B. (DD; Kenya; pop. acc.; 32–33.)
- x 1985 Said, R.J. (Kenya; traditional stories of dugong origins; 34.)
- x 1986 Goldsmith, P. (DD; East Africa; hunting with remoras; 231.)
- x 1986 McLaren et al. (TS; Cameroon; 296.)
- 1986 Yalden et al. (Ethiopia)
- 1987a Anon. (TS; Ivory Coast)
- x *1987 Domning & Thomas (*Metaxytherium serresii*, Plioc., Sahabi, Libya, 209, 230; *Metaxytherium* sp., Mioc., Sahabi, 209.)
- 1987 Pickford, M. (Eoc. or Olig., Angola)
- x 1988 Boekschoten & Best (dispersal of *Trichechus* from America in Pleist.; 110–111.)
- 1988 Fitzgerald, C. (TS; Ivory Coast)
- x *1988 Reeves et al. (TS; Sierra Leone; 75–84.)
- x 1989 Geraads, D. (*Metaxytherium* sp.; Late Mioc.,

Djebel Krechem, Tunisia; 781, 791.)

Age Determination (SEE ALSO: Embryology & Ontogeny; Growth Rates)

- x 1866 Lartet, E. (*Rytiodus*; tusks; 676-677.)
1908a Freund, L.
1938 Todd & Todd
- x 1940 Pocock, R.I. (DD; cranial sutures, 331; cheek teeth, 339-340.)
- x 1948 Bessac & Villiers (TS; lifespan ?100 years, 188; "swallow one pebble per year," 189.)
- x 1968a Bertram & Bertram (DD; tusks, teeth; m390.)
- x 1970 Scheffer, V.B. (DD; tusks; 187-190.)
- x 1972 Heinsohn, G.E. (DD; body length; 208-211.)
- x *1973 Mitchell, J. (DD; skulls, teeth; 1-23.)
- x 1974 James, P.S.B.R. (DD; skulls, teeth; 174-176, 180-182.)
- x 1976 Mitchell, J. (DD; tusks; 25-28.)
- x 1977 Domning & Magor (TI; tooth replacement not useful; 437.)
- x 1978 Kasuya & Nishiwaki (DD; tusks; 301-310, 4 pls.)
- x *1978 Mitchell, J. (DD; tusks; 317-348.)
- x *1980 Marsh, H. (DD; Australia; dentition; 181-201.)
- x 1981 Domning & Myrick (TI; tetracycline marking of rib; 203-207.)
- x 1981 Marsh & Kasuya (DD; tusks; workshop on growth-layer reading; 354-368.)
- x *1981e Marsh, H. (DD; techniques; 311-343.)
- x 1981 Mitchell, J. (DD; Queensland; growth layers in tusks; 99-109.)
1984 Myrick, A.C., Jr.
- x 1989a Preen, A. (DD; Arabian region; growth layers in tusks; 54, 86.)
- *1990 Marmontel et al. (TML; growth layers in bone)
- x 1991a Domning, D.P. (DD; pelvic bones; ontogenetic variation; 311-316.)
- Alabama
- x 1884b True, F.W. (TM; m114.)
- x 1964 Siler, W.L. (indeterminate sir.; Middle Eoc.; 1108.)
- x 1965 Arata & Jackson (indeterminate sir.; Middle Eoc.; 175-176.)
- x 1982 Domning, Morgan & Ray (indeterminate sirs.; Eoc.; 4, 6, 8-9, 17.)
- x 1988a O'Shea, T.J. (TM; 187, 199.)
- x 1990 Rathbun et al. (TM; 30.)
- Alaska
- x *1883 Stejneger, L. (HG; Aleutians; 84.)
- x *1884b True, F.W. (HG; supposedly seen alive at Attu; 136.)
- x 1885a Woodward, H. (HG; bones supposedly found in peat; 458.)
- x 1891 Lucas, F.A. (HG; Attu; m627.)
- xD 1924 Hay, O.P. (*Desmostylus*; ?Alaska; 1.)
- x 1958 Grekov, V.I. (HG; Aleutians; 96-98.)
- xD 1959 Byers, F.M. (*Cornwallius*; Unalaska; 289.)
- xD 1961 Drewes et al. (*Cornwallius*; Unalaska; 606-607, 667.)
- xD 1963 Mitchell & Repenning (desmostylians; 11, 15-16.)
- x 1971 Gard & Szabo (HG; Pleist., Amchitka; 577.)
- x *1971 Hall, E.S., Jr. (HG; archeological site, Kangiguksuk; 23, 34, 52.)
- x 1972 Gard et al. (HG; Pleist., Amchitka; 867-868.)
1975 Pewe, T.L.
- x 1975 Szabo & Gard (HG; Pleist., Amchitka; 457-459.)
- D 1976 Reinhart, R.H. (*Cornwallius*; Unalaska; 283-284.)
- x *1977 Whitmore & Gard (HG; Pleist., Amchitka, 1-19; archeological site, Kangiguksuk, 3, 15.)
- x 1978b Domning, D.P. (HG; 105, 135-139, 161-162.)
- x 1978 Simenstad et al. (HG; former ecological role in Aleutians; m409.)
- Amazonian Manatee: SEE *Trichechus inunguis* and synonyms
- Amblychilus* Fischer von Waldheim, 1814 (= *Dugong*)
- *1814 Fischer v. Waldheim, G.
- x 1978c Domning, D.P. (syn. of *Dugong*; m578.)
- Anatomy (SEE ALSO: Brain and Nervous System; Circulatory System; Digestive System; Embryology; Endocrinology; Growth Rates; Histology; Myology; Pathology; Respiratory System; Skeleton; Urogenital System; and under species)
- x 1820 Diard & Duvaucel (DD; 159-160.)
- x 1820 Raffles, T.S. (DD; 175-179, 181-182.)
- x *1834 Rüppell, E. (DD; Red Sea; external morphology & measurements, 101-103, 113; viscera, 103-106; skeleton, 107-112; pl. 6.)
- x 1838 Humboldt, A.v. (TM; Orinoco R.; 3-8, pls. 1-2.)
- x *1838 Owen, R. (DD, etc.; skeleton & viscera; 28-45.)
- *1852 Vrolik, W.T. (TM)
- x 1853 Wallace, A.R. (TI; Brazil; general anatomy & measurements; 185-186, 458-460.)
- x 1855 Gervais, P. (TI; intestines, skeleton; 114-115.)
- x *1857 Rapp, W.v. (TM; Suriname; 87-98, pl. 3.)
- x *1872a Murie, J. (TMM; external morphology & measurements, 127-134; internal anatomy, 135-189; pls. 17-26.)
- x *1876 Chapman, H.C. (TM; 452-462, pl. 26.)
- x 1878 Reichenau, W.v. (brief gen. acc.; external morphology; 137-138.)
- x 1880 Hartmann, R. (DD; external morphology & measurements; 156-159.)

- x *1880 Murie, J. (TMM; external morphology & measurements, 27-32, 44; internal anatomy, 32-44; pls. 5-9.)
- 1882 Gill (flukes)
- x 1883 Moloney, C.A. (TS; measurements; 28.)
- x *1883 Pelzeln, A.v. (TI; gen. acc.; 91-94.)
- x 1885 Ryder, J.A. (development of flukes; 515-519.)
- x 1889 Leboucq, H. (DD; fingernail rudiments; 190-192.)
- x 1889 Zipperlen, A. (TML; external & internal morphology; 25-26.)
- x 1891 Flower & Lydekker (gen. acc.; 212-214.)
- x 1896 Neish, W.D. (TMM; Jamaica; external measurements; 288.)
- x 1897b Kükenthal, W. (manatee spp. diagnosed on external characters; 39-40.)
- x *1899 Steller, G.W. (HG; external & internal morphology; 182-196.)
- x 1906 Annandale, N. (DD; external morphology & measurements; 238-241, pls. 7-9.)
- x *1906c Dexler & Freund (DD; external morphology; 567-581.)
- x 1908c Abel, O. (sir. locomotor organs; m403.)
- x 1908b Gudernatsch, J.F. (TM; external morphology; 226-231, pl. 9.)
- x 1924-
- 1925 Vosseler, J. (TI; measurements, 171-173; ?sexual dimorphism, 173-175.)
- x *1925 Steller, G.W. (HG; external and internal morphology; 229-236.)
- 1927a Petit, G. (DD; Madagascar; external morphology)
- x 1935 Barrett, O.W. (TMM; 218-219.)
- x 1937 Woods, F.J. (TS; Nigeria; external measurements & morphology; 24-25.)
- 1938 Aoki et al. (DD)
- x 1938 Devillers, C. (TI; external morphology & measurements; 84-88.)
- x 1944 Pereira, M.N. (TI; gen. acc., 37-45, 83-84; size & color variants, 44-45.)
- 1945 Hill, W.C.O. (DD)
- x *1946 Slijper, E.J. (spinal column, muscles, tendons; 28, 42-43, 46-47, 50-53, 71-78, 111-112, 114, 120; tabs. 1, 3, 5-6.)
- x 1951 Fernand, V.S.V. (DD; pituitary & adrenal, 57-62, pls. 1-2; thymus, 57; thyroid, kidney, & brain weights, 60.)
- x *1951 Kleinschmidt, A. (HG; skeleton and body reconstruction; 292-314.)
- x 1951b Moore, J.C. (TM; measurements; 31-32.)
- x *1953 Quiring & Harlan (TM; external morphology, 193-195; skeleton, 194-200; viscera, 194, 200-202.)
- x *1957 Gohar, H.A.F. (DD; Red Sea; external morphology, 6-15, pls. 1-2; peritoneal fat, 11; mouth & tongue, 16-29; external genitalia, 30-35, pls. 2-3; measurements, 41.)
- x 1965b Kaiser, H.E. (body cavity nomenclature; 426-428.)
- x *1966a Kaiser, H.E. (body cavity adaptations & hydrostasis; 59, 61-69.)
- x 1966b Kaiser, H.E. (hydrostatic adaptations; 426.)
- x 1966 Kinzer, J. (TS; measurements; 48-49.)
- x 1968a Bertram & Bertram (DD; digestive system, 388-389, 393; fat distribution, 393-394.)
- x 1973 Kaiser, H.E. (gen. acc.; 1-6.)
- 1973 Pinto da Silveira, E.K.
- x *1975 Spain & Heinsohn (DD; size & weight allometry; body & intestinal tract; 159-168.)
- x *1976 Allen et al. (DD; measurements, organ weights, etc.; 41-46.)
- x *1977a Domning, D.P. (DD; measurements, 2; skin thickness, 3; myology, 3-57.)
- xD 1977 Hasegawa, Y. (artists' reconstructions of desmostylians; pop. acc.; 90-91.)
- x 1978 Husson, A.M. (TMM; Suriname; body & skull measurements; 337-338.)
- x 1978 Marsh et al. (DD; external & internal morphology; review; 159-166.)
- x 1979 Anderson, P.K. (DD; external morphology; 114-120.)
- x 1979 Hartman, D.S. (TM; Florida; measurements of cow & newborn calves; 120-121, 123-124.)
- x 1979 Kamiya et al. (DD; organ weights; 129-132, pls. 1-4.)
- x 1979 Tas'an et al. (DD; Indonesia; external measurements, change of tail shape with growth, organ weights & measurements; 10-13, 20-22, 24, 29-30.)
- x 1980 Dekker, D. (TM; in capt.; perinatal changes in female, 21-22; growth of young, 26.)
- x 1980 Haley, D. (HG; reconstruction of body form; 10-11.)
- x 1980 Irvine et al. (TM; body lengths & weights; 7-8.)
- x *1981d Heinsohn, G.E. (DD; standard methods of taking external measurements, other data, & specimen material; 229-235.)
- x 1981 Odell et al. (TM; organ weights & sexual maturity; 52-65.)
- 1982 Mellett, J.S.
- x *1983 Bonde et al. (TM; salvage & necropsy manual; i-v, 1-175.)
- x 1984 Nietschmann, B. (DD; Torres Strait; external measurements; 634.)
- x 1985 Rowlatt & Marsh (DD, TM; heart & related thoracic structures; 95-106.)
- x 1990 Colares et al. (TI; sites for injections & blood

- sampling; 47.)
- x *1991 Domning & de Buffrénil (distr. of skeletal mass, lung position & structure, & hydrostasis; 331-368.)
- x 1991 Frazier & Mundkur (DD; India; external measurements, integument, number of phalanges, organ weights & measurements; 371-375.)
- Anisosiren* Kordos, 1979
- *1979 Kordos, L.
- x 1982 Sereno, P.C. (m8.)
- Anisosiren pannonica* Kordos, 1979
- *1979 Kordos, L.
- x 1980 Kordos, L. (m385; nature of type material, 387.)
- x 1982 Domning, Morgan & Ray (comp. w/other Eoc. sirs.; 5, 35-36, 55.)
- Anomotherium* Siegfried, 1965
- *1965 Siegfried, P.
- x 1978b Domning, D.P. (comp. w/ *Dusisiren*; 14, 73-74.)
- x 1987 Domning & Thomas (probably related to *Miosiren*, not *Metaxytherium*; 207.)
- Anomotherium langewieschei* Siegfried, 1965
- *1965 Siegfried, P.
- x 1982 Kleinschmidt, A. (body proportions, 375; m378-380; bone density, 388-389.)
- 1986 Rothausen, K.
- Anoplonassa* Cope, 1869 (Cetacea)
- *1869 Cope, E.D.
- x 1872a Gill, T. (in classification; 92.)
- Anoplonassa forcipata* Cope, 1869 (Cetacea)
- *1869 Cope, E.D.
- 1890 Cope, E.D.
- x 1907 True, F.W. (Cope's referral to Sirenia; 97.)
- Antaodon* Ameghino, 1886 (Tayassuidae)
- x *1886 Ameghino, F. (*A. cinctus*, n.gen.n.sp., described as a tapiroid; 151ff.)
- Anthrocephala Billberg, 1827 (tribe; = Sirenia)
- *1827 Billberg, G.J.
- 1828 Billberg, G.J.
- Antillean Manatee: SEE *Trichechus manatus*; *Trichechus manatus manatus*; and synonyms
- Arabia: SEE Asia; Red Sea
- Archaeosiren* Abel, 1913 (nomen nudum; = *Eosiren*)
- *1913 Abel, O.
- x 1916a Matthew, W.D. (m27.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 471, 473, 481, 495, 499.)
- x 1941 Kretzoi, M. (in classification; 152-154, pl. 6.)
- x 1945 Simpson, G.G. (syn. of *Eotheroides*; 135.)
- x 1951 Reinhart, R.H. (m209.)
- x 1978c Domning, D.P. (syn. of *Eotheroides*; m575.)
- x 1982 Kleinschmidt, A. (syn. of *Eotheroides*; 378-379.)
- Archaeosiren stromeri* Abel, 1913 (nomen nudum; = *Eosiren stromeri*)
- *1913 Abel, O.
- x 1938 Zdansky, O. (m429, m432.)
- x 1953 Kretzoi, M. (m274.)
- x 1992 Gingerich, P.D. (Egypt; stratigraphic horizon; ?syn. of *Eosiren libyca*; 75-76.)
- Archaeosireniinae Abel, 1914 (nomen nudum; = Hali-theriinae)
- *1914 Abel, O.
- Archeological Sites, Sirenia at
- 1875 Wyman, J.
- 1885 Hartt, C.
- x *1897 Etheridge et al. (DD; Sydney, Australia; ?Pleist. ?kill; 174, 178-180, pls. 8-11.)
- x 1905 Etheridge, R., Jr. (DD; New South Wales; 18-19.)
- x 1911 Gann, T.W.F. (TM; Belize; 78, 82.)
- x 1916 Miller, G.S., Jr. (TM; Santo Domingo; 9.)
- 1918 Gann, T.W.F. (TM; Belize)
- x 1918 Miller, G.S., Jr. (TM; St. Croix, Virgin Is.; 509.)
- 1925 Gann, T.W.F. (TM; Honduras)
- 1925 Patte, E.
- 1928 Gann, T.W.F. (TM; Belize)
- x 1929 Miller, G.S., Jr. (TM; Dominican Republic; 11-12.)
- 1935 Loven, S. (TM; West Indies)
- 1935 Strong, W.D. (TM; Honduras)
- 1937 Lothrop, S.K. (TM; Panama)
- x 1942 Gunter, G. (Texas; no records of sirs.; 89.)
- x 1957 Pollock & Ray (TM; Mayapan, Mexico; carved rib; 644, 653.)
- 1959 Murie, O.J. (HG; no records in Aleutians)
- x 1960 Ray, C.E. (TMM; St. Lucia; 412.)
- 1960 Takiguchi (DD)
- 1962 Proskouriakoff, T. (TM; Yucatan)
- 1964 Ladd, J. (TM; Panama)
- 1964 Rouse, I.
- x *1967 Feriz, H. (Brazil; clay figurine of manatee; 373-374.)
- 1967 Wing, E.S.
- x 1968 Wing et al. (TM; Antigua; 129.)
- x 1969 Bibby, G. (DD; Abu Dhabi; 303-304, 306.)
- 1970 Waller, B.I. (TM; Florida)

- x 1971 Hall, E.S., Jr. (HG; Kangiguksuk, Alaska; 16th Century Eskimo site; 23, 34, 52.)
- x 1972b Domning, D.P. (possibility of finding HG; 188-189.)
- x 1972 Gard et al. (HG; no records in Aleutians; 868.)
- 1973 Wing, E.S.
- 1975 Bulliet, R.W. (DD; South Arabia)
- 1975 Wing, E.S. (TM; Mexico)
- 1976 Hojo, T. (DD; Okinawa)
- x 1976 Loveland, F.O. (TM; Panama; 80.)
- x 1976 Roaf, M. (DD; Bahrain; 144, 149-151.)
- x 1977 Bertram, G.C.L. (DD; Umm an-Nar, Abu Dhabi; m3.)
- D 1977 Sato & Ijiri (*Paleoparadoxia tabatai*)
- x 1977 Whitmore & Gard (HG; Alaska; 3, 15, 18.)
- 1977 Wing, E.S. (TM; Mexico)
- x 1978b Domning, D.P. (HG; lack of records; 134.)
- 1978 Eaton, J.D. (TM; Mexico)
- 1978 Magnus, R.W. (TM; Nicaragua)
- 1978 Willey, G.R.
- 1979 Hasegawa & Nokariya (DD)
- 1979 Hoch, E. (DD; Oman)
- x *1980 Cumbaa, S.L. (TML; Florida; 6, 8-9.)
- 1980 Linares, O.F. (TM)
- 1980 Scott, K.W. (TM; Belize)
- 1980 Wing & Scudder
- 1980 Wing, E.S. (TM; Panama)
- x 1981 Bertram, G.C.L. (DD; Abu Dhabi; m3.)
- x 1982 Olsen, S.J. (TM; identification of bones from Mayan sites; 8, 41-42, 54, 56-57, 62, 66, 70, 75, 90.)
- x 1982 Wing & Reitz (TMM; Caribbean; 16, 24.)
- x 1983 Bradley et al. (TM; hypothetical use by Olmecs; 1-82.)
- 1983 Neumayer, E. (DD; India; depicted in rock paintings)
- 1984 McKillop, H.I. (TM; Belize)
- x *1984b Minnegal, M. (DD; Queensland; butchering; 15-20.)
- x 1984 Powell & Rathbun (TM; northwestern Florida; 20.)
- x 1984 Watters et al. (TM; Barbuda; 404, 406-407, 409.)
- x *1985 McKillop, H.I. (TMM; Mayan area, Central America; 340-348.)
- x 1986 Steininger, F.F. (TM; St. Lucia; 42, 74.)
- x 1989 Leatherwood & Reeves (DD; Sri Lanka; 86.)
- 1989 Uerpmann, H.P. (DD; Oman)
- x *1991 Bradley, J.J. (DD; Sir Edward Pellew Islands, Australia; modern use of sites; 104-109.)
- x *1991 Prieur & Guérin (DD; Umm al-Qaiwain, United Arab Emirates; 72-83.)
- Arctic Region
- x 1861 Strauss-Durckheim (?HG; Hudson's Bay; 513-514.)
- x 1863a Brandt, J.F. (HG; Siberia & ?Hudson's Bay; 563.)
- x D *1927 Pfizenmayer, E.W. ("*Desmostylus*" *Wollosowitschi*, n.sp.; Pleist., New Siberian Islands; 492-496.)
- x 1958 Grekov, V.I. (HG; Siberia; 98, 100.)
- D 1970 Strelkov, S.A.
- x 1971 Hall, E.S., Jr. (HG; Kangiguksuk, Alaska; 23, 34, 52.)
- x 1977 Whitmore & Gard (HG; Kangiguksuk, Alaska; 3, 15, 18.)
- x 1978b Domning, D.P. (HG; possible records; 136-139.)
- Argentina
- x *1883 Ameghino, F. (*Ribodon limbato*, n.gen.n.sp.; Mioc.-Plioc., Paraná R.; 112-113.)
- x 1885 Ameghino, F. (*Ribodon limbatus*; 100-105.)
- x 1886 Ameghino, F. (*Ribodon limbatus*; 147-151.)
- 1889 Ameghino, F.
- 1891 Ameghino, F.
- 1893 Ameghino, F.
- 1904 Ameghino, F.
- 1906 Ameghino, F.
- 1907 Branca, W.
- x *1953 Pascual, R. (*Ribodon*; Mioc.-Plioc.; 163-167.)
- x 1966 Pascual, R. (cf. *Felsinotherium*; Late Mioc., Paraná R.; 242.)
- *1976 Reinhart, R.H. (*Metaxytherium*; Mioc., Paraná R.)
- x 1982b Domning, D.P. (*Ribodon limbatus*; Mioc.-Plioc., Paraná R.; 602-603.)
- x 1982 Sereno, P.C. (*Florentinoameghinia*; Early Eoc., Patagonia; 1-10.)
- Asia (SEE ALSO: Arctic Region; Bering Sea; China; East Indies; Indian Ocean; India; Japan; Red Sea; Russia; Sakhalin; Sri Lanka; Taiwan)
- 1851 Horsfield, T. (DD; Siam; 139.)
- 1908 O'Malley, L.S.S. (DD; Bangladesh)
- 1925 Patte, E.
- x D *1927 Pfizenmayer, E.W. ("*Desmostylus*" *Wollosowitschi*, n.sp.; Pleist., New Siberian Islands; 492-496.)
- x 1934 Hirasaka, K. (DD; Korea; 4221.)
- 1934 Landsberger, B.
- x 1958 Grekov, V.I. (HG; northern coast of Siberia; 98, 100.)
- 1959 Thesiger, W. (DD; Arabia)
- x 1960b Anon. (*Trichechus*; Thailand; weed control; m5.)
- x 1960c Anon. (*Trichechus*; Thailand; weed control; m70.)
- 1961 Thiemmedh, J. (DD; Gulf of Thailand)
- x 1962 Tranngocloi, N. (DD; Vietnam; 451.)
- x 1967 Aung, S.H. (DD; Burma; 221.)
- 1968 Thiemmedh, J. (DD; Thailand)
- x 1969 Bibby, G. (DD; Abu Dhabi; 224, 303-304, 306.)
- x 1970 Yin, T. (DD; Burma; 326-327.)

- xD 1971 Dubrovo & Sinel'nikova (*Desmostylus hesperus*; Kamchatka; 670-673.)
 1971 McCue, J.
 x 1973 Bertram & Bertram (DD; distr. & status; 307-309.)
 1976 Carp, E. (DD; United Arab Emirates)
 x 1976 Gallagher, M.D. (DD; Bahrain; 211.)
 x 1976 Roaf, M. (DD; Bahrain; archeol. site; 144, 149-151.)
 1977e Anon. (DD)
 x 1977 Bertram, G.C.L. (DD; Abu Dhabi; 3-4.)
 x 1977 Harris & Bertram (DD; Abu Dhabi; 5-6.)
 x 1977 Savage & Tewari (indeterminate sirs.; Mioc., Iran; 218.)
 1978 Herdson, D.M. (DD; Bahrain)
 1979 Hoch, E. (DD; Oman; archeol. site)
 x 1981 Jones, S. (DD; Burma, India, Sri Lanka, & neighboring areas; distr. & status; 43-54.)
 x 1983a Anon. (DD; Persian Gulf; deaths from oil spill; 180.)
 x 1983 Begley et al. (DD; Persian Gulf; Nowruz oil spill; 79.)
 x 1984 Raza et al. (indeterminate sir.; Mioc., Pakistan; 585.)
 1985c Anderson, P.K. (DD; Arabia; pop. acc.)
 1985 Taylor, D.C. (DD; Arabia; pop. acc.)
 1985 Thomas et al. (Mioc., Saudi Arabia)
 1986b Anderson, P.K. (DD; Arabia; pop. acc.)
 x 1986c Anon. (DD; Persian Gulf; not exterminated by oil spill; 25.)
 1987 Preen, A.R. (DD; Persian Gulf)
 x 1987 Whitmore, F.C., Jr. (indeterminate sir.; Saudi Arabia; m447.)
 1988 Preen, A.R. (DD; Arabia)
 x *1989 Preen et al. (DD; Arabian region; conservation; 1-43.)
 x *1989a Preen, A. (DD; Arabian region; status & conservation; 1-200.)
 1989 Uerpmann, H.P. (DD; Oman; archeol. site)
 x 1991a Brown, J.N.B. (DD; United Arab Emirates; status; 20-21.)
 x 1991b Brown, J.N.B. (DD; Abu Dhabi; meat sold; 33.)
 1991a Kamiya, T. (DD; Persian Gulf; effects of Gulf war)
 x 1991 Kingdon, J. (DD; Arabia; pop. acc.; 112-114.)
 1991 Krupp, F. (DD; Persian Gulf)
 x 1991 Prieur & Guérin (DD; United Arab Emirates; archeological site; 72-83.)
 x 1992 Hellyer, P. (DD; Abu Dhabi; 44.)
 1992 Sheppard et al. (DD; Arabia)
 x 1992 Whybrow, P. (?Pleist., Abu Dhabi; 20.)
 x 1993 Hellyer, P. (DD; Abu Dhabi; 24.)
 x 1993 Thewissen, J.G.M. (indet. sir.; Eoc., Pakistan; 125-127.)
- Australia
 x 1699 Witsen ("sea-cows"; Nova Hollandia; m361.)
 x 1798 Collins, D. (DD; south of Botany Bay, New South Wales; 1:409.)
 1838 Tytler, R.
 x 1843 Backhouse, J. (DD; near Brisbane; 368-369.)
 1852 MacGillivray, J. (DD; Moreton Bay, Queensland; fishery)
 1852 Sidney, S.
 x 1857 Fairholme, J.K.E. (DD; Moreton Bay, Queensland; 352-353.)
 1860 Bennett, G. (DD; Queensland)
 1862 Wight, G. (DD; Queensland; oil)
 1863 Gould, J.
 1876 Thorne, E. (DD; Queensland; oil)
 x 1881 Anon. (DD; Queensland; econ. use; 738-747.)
 x 1882 Faithful, P. (DD; Moreton Bay, Queensland; 3-7, 9, 11, 13, 15.)
 1883 Ramsay, E.P.
 x 1883 Wallace, A.R. (DD; Queensland; 54.)
 x *1884 De Vis, C.W. (*Chronozoon australe*, n.gen.n.sp.; ?Plio-Pleist., Queensland; 392-395, pl. 17.)
 x 1886 Miklouho-Maclay, N. de (DD; Mabiak, Torres Strait; m193.)
 1887 Collett, R. (DD; Queensland)
 1890 Senior, W. (DD; Moreton Bay)
 1892 Ogilby, J.D.
 x 1893 Howes & Harrison (DD; skeleton & teeth; 790.)
 1893 Kent, W.S.
 1893 Stretton, W.G. (Gulf of Carpentaria; making of harpoon rope)
 x *1897 Etheridge et al. (DD; ?Pleist. skeleton, Sydney, 170-174, 178-180, pls. 8-11; modern distr., 172.)
 x 1897 Loyau, G.E. (DD; Queensland; origins of fishery; 365.)
 x 1899 Hunt, A.E. (DD; Torres Strait; used as food; m13.)
 1901a Finsch, O. (DD; Queensland; hunting)
 *1901-
 1935 Haddon, A.
 x 1901 Roth, W.E. (DD; Queensland; hunting; 30.)
 1903 Semon, R.
 x 1904a Lorenz, L.v. (DD captured by Dexler; m1.)
 x 1905 Annandale, N. (DD; netting; 242.)
 1905 Dexler, H.
 x 1905 Etheridge, R., Jr. (DD; New South Wales; 17-19, pl. 4.)
 1905 Welsby, T. (DD; Moreton Bay, Queensland)
 x 1906b Dexler & Freund (DD; 49-50.)
 1907 Le Souëf, W.H.D. (DD)
 x 1909 Anon. (DD; econ. use & hunting; 93.)
 1909 Lucas & Le Souëf (DD)
 1910 Anon.

- x 1912 Harris, W.K. (DD; hunting, econ. & medicinal uses; 226-228.)
 1917 Marius (DD; pop. acc.)
 x 1919 Jay, D. (DD; harpooning; 40-41.)
 x 1923 Jackson, E.S. (DD; medicinal use of oil by Dr. Wm. Hobbs; m282.)
 1924 Adams, M.P.G.
 x 1925 Lee, I. (DD; early accounts; 19-21, 482, 520, 523.)
 1925 Tindale, N.B.
 x 1926 Dahl, K. (DD; Roebuck Bay, Western Australia; m266.)
 1926 Le Soueff & Burrell
 1932 Haddon, A.C. (DD; Torres Strait; hunting & rituals)
 1932 Petrie, C.C.
 1934 Hale & Tindale (DD; Princess Charlotte Bay, Queensland)
 x *1934 Thomson, D.F. (DD; Cape York Peninsula; Aboriginal hunting lore; 237-263, pls. 29-31.)
 x 1936 Moore, W.R. (DD; econ. use; m746.)
 x 1936 Sunter, G.H. (DD; Northern Territory; harpooning; 47-48.)
 x 1937 Promus, J. (DD; Queensland; commercial netting; 40-41.)
 1937 Roughley, T.C.
 x 1937 Sunter, G.H. (DD; Northern Territory; harpooning; dugong killing crocodile; 53-61.)
 x 1938 Wood, T. (DD; Buccaneer Archipelago; m46, m53.)
 1939 Patterson, E.K. (DD; hunting)
 x 1941 Johnston & Mawson (DD; nematode *Dujardinia*; 432.)
 1945 Church, A.E. (DD; hunting)
 1946 Harney, W.E. (DD; Sir Edward Pellew Islands, Northern Territory; hunting)
 x 1949 Jervis, J. (DD; Moreton Bay, Queensland; oil industry; 340.)
 x 1949 Loveless, J.R. (DD; Queensland; netted for oil; 8.)
 1951 MacInnes, I.G.
 x *1955 MacMillan, L. (DD; distr. & habits; 17-19.)
 1956 Thomson, D.F. (DD; Princess Charlotte Bay, Queensland)
 1959b Anon. (DD; New South Wales)
 1959 Cilento & Lack
 x 1962 Marlow, B.J. (DD; New South Wales; 433.)
 1964 Johns, H. (DD; pop. acc.)
 x *1964 Johnson, D.H. (DD; specimens from Arnhem Land, Northern Territory; 506-508.)
 x 1966a Bertram & Bertram (DD; status; 938-939.)
 x 1966b Bertram & Bertram (DD; 213-217.)
 x 1966c Bertram & Bertram (DD; 221-222.)
 x 1966 Little, E.C.S. (DD; proposed use in weed control; 86.)
 1966 Troughton, E.
 x 1967 Kenny, R. (DD; respiration; 372-373.)
 x 1967 Oke, V.R. (DD; northern Queensland; in capt.; 220-221.)
 x *1967 Welsby, T. (DD; Moreton Bay, Queensland; 1: 102-110, 2: 233-257.)
 1968 Bannister, J.L.
 x 1968 Keith, K. (DD; Gulf of Carpentaria; 20.)
 x *1968 Lack, C. (DD; Queensland; history of oil industry; 4-6.)
 x 1969 Anon. (DD; hunting banned; 90.)
 x 1969 Caldwell et al. (DD; 437.)
 1970 Butler, W.H. (DD; Barrow Is., Western Australia)
 1970 Whitley, G.P.
 1971 Bertram & Bertram
 1971 Roughsey, D.
 x 1972 Heinsohn & Birch (DD; food; 414-422.)
 x *1972 Heinsohn, G.E. (DD; natural history; 205-212.)
 x 1972 Kenchington, R.A. (DD; drowned in shark nets; m884.)
 x 1972 Walker, K. (DD; Stradbroke Is., Queensland; netting & eating; 71, 73-74.)
 x *1973 Bertram & Bertram (DD; distr. & status, 310-315; econ. use, 322-324; hunting & capture, 325-328; conservation, 331-332; captures at Numbulwar Mission, Northern Territory, 333-335.)
 x 1973 Cantley, R. (DD; status & conservation; 34-35, 52.)
 x 1973 Mitchell, J. (DD; age determination; 2.)
 x 1973 Spain & Heinsohn (DD; cyclone & feeding changes; 678-680.)
 1974 Baudin, N. (DD; Western Australia)
 x 1974 Bertram, G.C.L. (DD; conservation; 15-16, 19.)
 x 1974 Heinsohn & Spain (DD; Queensland; effects of cyclone; 143-152.)
 x 1974 Spain & Heinsohn (DD; skull allometry; 249.)
 1975 Colliver & Woolston (DD; Stradbroke Is., Queensland)
 x 1975 Kirkman, H. (DD; Tin Can Bay, Queensland; m131.)
 x 1975 Martin, J.H.D. (DD; Moreton Bay & Stradbroke Is., Queensland; 74.)
 x 1975 Spain & Heinsohn (DD; size & weight allometry; 159.)
 x 1976b Anon. (DD; pop. acc.; 62-63.)
 1976c Anon. (DD)
 x 1976 Heinsohn & Wake (Fraser Is., Queensland, as dugong habitat; 15-18.)
 x 1976 Heinsohn, Marsh & Spain (DD; netting technique; 117-121.)
 x 1976 Heinsohn, Spain & Anderson (DD; Queensland; aerial surveys; 21-23.)

- x 1976 Ligon, S.H. (DD; Queensland; aerial survey; 580-582.)
- x 1976 Spain et al. (DD; Queensland; skull variation; 491.)
- x 1977 Blair, D. (DD; parasitic flukes; 64.)
- x 1977 Heinsohn & Marsh (DD; pop. acc.; 106-111.)
- x 1977 Heinsohn et al. (DD; role in seagrass system; 235-248.)
- x 1977 Heinsohn, G.E. (DD; pop. acc.; 1-5.)
- x 1977 Marsh et al. (DD; digestive system & parasites; 271-295.)
- x 1977 Murray et al. (DD; Queensland; hindgut & digestion; 7-8.)
- x 1977 Nietschmann, B. (DD; Torres Strait; feeding, tides; 10-12, 14.)
- x *1978 Anderson & Birtles (DD; Queensland; behavior & ecology; 1-23.)
- x *1978 Anderson & Heinsohn (DD; distr. survey; 13-26.)
- x 1978 Burbridge & George (DD; Dirk Hartog Is., Western Australia)
- x 1978 Heinsohn et al. (DD; Brisbane; 91-92.)
- x 1978a Heinsohn, G.E. (DD; conservation; pop. acc.; 29-30.)
- x 1978 Marshall, A.J. (DD; Arnhem Land, Northern Territory; Aboriginal story; 80-84.)
- x 1978 Stanbury, P.J. (DD; accounts by Dampier & Portlock; 18.)
- x 1979 Blair, D. (DD; trematode *Labicola elongata*; 519-520, 525.)
- x 1979 Caton, A. (DD; research & conservation; pop. acc.; 1-4.)
- 1979 Cropp, B. (DD; Shark Bay, Western Australia; pop. acc.)
- 1979 Glazebrook, R. (DD; in capt.)
- 1979 Heinsohn et al. (DD)
- 1979 Ling, J.K. (DD)
- 1979 Moore, D.R. (DD; Cape York; hunting)
- 1979 Paterson, R. (DD; mortality from shark nets)
- x 1979 Pedley, I. (DD; Tin Can Bay, Queensland; oil industry; 231.)
- x 1980 Blair, D. (DD; trematode *Indosolenorchis hirudinaceus*; 511-525.)
- 1980 Caton, A. (DD; pop. acc.)
- x 1980 Denton et al. (DD; metal content of tissues; 201-219.)
- x 1980 Marsh, H. (DD; age determination; 181-201.)
- x 1981b Anderson, P.K. (DD; behavior; 91-111.)
- x 1981 Bertram, G.C.L. (importance of Australia as past & present center of dugong abundance and its responsibility in dugong conservation; 1-7.)
- x 1981a Blair, D. (DD; parasitic flukes; 2.)
- x 1981b Blair, D. (DD; parasites; gen. acc.; S21-S22.)
- x 1981 Campbell & Ladds (DD; Queensland; diseases; 176-181.)
- x 1981 Chase, A. (DD; Aboriginal use & beliefs; 112-122.)
- x 1981 Denton & Breck (DD; Queensland; mercury in tissues; 117, 119-120.)
- x 1981a Denton, G.R.W. (DD; Queensland; heavy metal content of tissues; 169-174.)
- x 1981 Elliott et al. (DD; in capt.; salmonellosis; 203.)
- x 1981 Elliott, M.A. (DD; Northern Territory; distr. & status; 57-66.)
- x 1981a Heinsohn, G.E. (DD; Queensland; distr. & status; 55-56.)
- x 1981 Marsh & Glover (DD; male reproductive tracts; 262, 266.)
- x 1981 Marsh & Heinsohn (DD; Queensland; workshop on aerial survey techniques; 345-353.)
- x 1981 Marsh et al. (DD; Wellesley Islands, Queensland; hunting & conservation; 255-267.)
- x *1981a Marsh, H. (proceedings of dugong seminar/workshop; 1-400.)
- x 1981d Marsh, H. (DD; Queensland; female reproductive tracts; 248.)
- x 1981 Mitchell, J. (DD; Queensland; age determination; 99-109.)
- x 1981 Nietschmann & Nietschmann (DD; Torres Strait; hunting; 54-63.)
- x 1981 Prince et al. (DD; Western Australia; distr. & status; 67-87.)
- x 1981 Purse, B. (DD; Queensland; hunting; review of film; 199-200.)
- x 1981a Spain & Marsh (DD; Queensland; skull variation; 143-161.)
- x 1981 Sprent, J.F.A. (DD; Queensland; nematode *Paradujardinia*; 310.)
- x 1982a Anderson, P.K. (DD; Shark Bay, Western Australia; population size & habitat use; 69-84.)
- x 1982b Anderson, P.K. (DD; Shark Bay, Western Australia; behavior; 85-99.)
- x 1982 Barnett & Johns (DD; Queensland; hunting, conservation, underwater observations; 515-524.)
- x 1982 Marsh & Heinsohn (DD; conservation; 1-5.)
- x 1982 Marsh et al. (DD; Queensland; stomach contents; 55-67.)
- 1983 Hudson, B.E.T. (DD; Torres Strait)
- 1983 Marsh & Heinsohn (DD)
- 1983 Powell, J.A., Jr. (DD; pop. acc.)
- x 1983 Preen & Heinsohn (DD; 4 photos; 20-21.)
- x 1984a Anderson, P.K. (DD; Shark Bay, Western Australia; suckling; 510.)
- 1984b Anderson, P.K.
- x 1984c Anderson, P.K. (DD; Queensland; behavior & ecology; 37-42.)
- 1984 Cropp, B. (DD; pop. acc.)
- x 1984c Marsh, H. (DD; Northern Territory; rescue of

- animals stranded by cyclone; 106-107.)
- x 1984 Marsh, Heinsohn & Channells (DD; female reproductive tract; 744.)
- x 1984 Marsh, Heinsohn & Glover (DD; male reproductive tract; 722.)
- x 1984 Marsh, Heinsohn & Marsh (DD; breeding & population dynamics; 767-788.)
- 1984a Minnegal, M. (DD; Princess Charlotte Bay, Queensland)
- x 1984b Minnegal, M. (DD; Princess Charlotte Bay, Queensland; evidence of butchering at archeological site; 15-20.)
- x 1984 Nietschmann, B. (DD; Torres Strait; hunting & ecology; 625-651.)
- x 1984 Robinson, N.H. (DD; New South Wales; 157.)
- 1984 Taylor, J.M. (DD)
- x 1985 Anderson & Prince (DD; Shark Bay, Western Australia; attacks by killer whales; 554-556.)
- 1985a Anon. (DD)
- x 1985 Baldwin, C.L. (DD; northeastern Queensland; conservation & management; 1-20.)
- x 1985 Kenchington, R.A. (DD; Great Barrier Reef, Queensland; conservation; 89-90.)
- 1985 Thomson, D.F. (DD)
- x 1986a Anderson, P.K. (DD; Shark Bay, Western Australia; temperature, nutrition, & seasonal movements; 473-490.)
- 1986c Anderson, P.K. (DD; Shark Bay, Western Australia)
- x 1986 Baldwin, C.L. (DD; Queensland; conservation; 206-212.)
- x 1986 Bayliss, P. (DD; Northern Territory; aerial survey; 27-37.)
- x 1986 Blair, D. (DD; parasites; gen. acc.; 46.)
- 1986 Heinsohn, G.E. (DD)
- 1986 Hudson & Marsh (DD; Torres Strait; aerial surveys)
- 1986 Hudson, B.E.T.
- 1986 Marsh, Freeland et al. (DD; Northern Territory; stranding by cyclone)
- x 1986a Marsh, H. (DD; Torres Strait; status; 53-76.)
- x 1986 Prince, R.I.T. (DD; northern Western Australia; 1-38.)
- x 1986 Tisdell, C.A. (DD; conservation; 102-103.)
- 1987 Beckett, J. (DD; Torres Strait; hunting)
- 1987 Bertram, G.C.L. (DD)
- x 1987 Finger, J. (DD; Queensland; history of oil industry; 3-5.)
- 1987 Marsh, H. (DD)
- 1988 Anderson, G.R.V. (DD)
- 1988a Anderson, P.K. (DD; Shark Bay, Western Australia)
- 1988 Anon. (DD)
- 1988 Bradley, J.J. (DD; Sir Edward Pellew Islands, Northern Territory)
- 1988 Davis, S. (DD; northern Arnhem Land, Northern Territory)
- x 1988 Doig & Dyson (DD; Queensland; satellite tracking; pop. acc.; 438-439.)
- 1988 Gray & Zann (DD; northern Australia; traditional knowledge)
- x 1988a Marsh, H. (DD; ecology & conservation; 9-21.)
- x 1988b Marsh, H. (DD; status of research; 128-130.)
- x 1988c Marsh, H. (DD; gen. acc.; 8-10.)
- 1988d Marsh, H. (DD)
- x 1988e Marsh, H. (DD; conservation; 495-502.)
- 1988 Myroniuk, P. (DD; Hinchinbrook Is., Queensland)
- 1988 Prince, R.I.T. (DD; Western Australia)
- x 1988 Reddacliff, G. (DD; Sydney; killed by cookie-cutter sharks; 133-134.)
- 1988 Smith, A.J. (DD; Queensland)
- x 1988 Tucker & Puddicombe (DD; conservation; 82-83.)
- 1989 Anderson, P.K. (DD; foraging on macroinvertebrates)
- x 1989 Bayliss & Freeland (DD; western Gulf of Carpentaria; distr. & abundance; 141-149.)
- 1989 Marsh & Saalfeld (DD)
- x 1989a Marsh & Sinclair (DD; aerial surveys; visibility bias correction; 1018-1022.)
- x 1989a Marsh, H. (DD; Northern Territory; stranding by cyclone; 78-84.)
- x 1989b Preen, A. (DD; Moreton Bay, Queensland; mating behavior; 382-387.)
- *1989 Smith, A. (DD; eastern Cape York Peninsula; exploitation by Aborigines)
- x 1990 Marsh & Rathbun (DD; Queensland; radio & satellite tracking; 83-100.)
- 1990 Marsh & Saalfeld (DD; Great Barrier Reef Marine Park, Queensland; distr. & abundance)
- x 1990 Paterson, R.A. (DD; Queensland; mortality from shark nets; 155-156.)
- x 1990 Smith & Marsh (DD; northern Great Barrier Reef, Queensland; management of traditional hunting; 47-55.)
- x 1991 Bradley, J.J. (DD; Sir Edward Pellew Islands, Northern Territory; traditional hunting; 91-110.)
- x 1991 Fitzpatrick, J. (DD; Torres Strait; sharing of meat; m19-20.)
- 1991 Fox, R. (DD; Shark Bay, Western Australia; pop. acc.)
- x 1991 Johnson, R.L. (DD; Great Barrier Reef, Queensland; pop. acc.; 36-46.)
- x *1992 Pledge, N. (?*Dugong*; Early Plioc., South Australia; 6.)

- x 1993 Brown, J. (DD; Hervey Bay, Queensland; seagrass dieoff; pop. acc.; 11.)
- x 1993 Harling, R. (DD; Shark Bay; lekking; pop. acc.; 10–11.)
- Austria
- x 1847 Meyer, H.v. (*Halianassa Collinii*; Linz; 189–190.)
- x 1861 Van Beneden, P.J. (*Halitherium*; Linz; 481.)
- 1867 Hauer, F.v. (*Haliannassa Collini*; Hainburg)
- x 1867 Peters, K.F. (*Halitherium Cordieri*; ?Mioc., Hainburg; 309–314, pl. 7.)
- 1867 Stache, G. (*Halitherium*; Hainburg)
- x *1895 Depéret, C. (*Metaxytherium krahuletzii*, n.sp.; Mioc., Eggenburg; 408, 415.)
- 1896 Toula, F.
- 1899 Toula, F.
- 1902c Abel, O.
- 1903 Abel, O.
- *1904a Abel, O.
- 1927 Ehrenberg, K. (Friedberg)
- 1927a Sickenberg, O. (Mioc., Burgenland)
- 1927b Sickenberg, O. (*Metaxytherium petersi*; Mioc., Burgenland)
- *1928 Sickenberg, O. (*Thalattosiren*, n.gen.; Mioc., Burgenland)
- 1929b Sickenberg, O. (Mioc., Burgenland)
- *1959 Spillmann, F.
- 1969 Steininger, F.F. (Linz)
- x 1971 Daxner-Höck, G. (*Metaxytherium krahuletzii*; Eggenburg region; 764–765.)
- 1972 Schultz, O. (Mioc.)
- x 1973 Spillmann, F. (*Halitherium* spp.; Olig.; 197–209.)
- 1975 Rabeder, G. (Late Olig.)
- 1977 Ebner & Graef (Weitendorf)
- 1977 Fuchs, W.
- x 1991 Pervesler & Roetzel (*Metaxytherium krahuletzii*; Eggenburg region; 97.)
- Bacteriology
- x 1968 Lemire, M. (microbiological digestion; 504–514.)
- x 1969 Frye & Herald (TI; *Proteus vulgaris*, *P. morgani*, *Streptococcus* spp., *Edwardsiella* spp., *Clostridium prefringens*; 1073.)
- x 1974 Bartmann, W. (TM; *Pseudomonas morgani*, *Streptococcus*, *Staphylococcus*; 14.)
- x 1975 Forrester et al. (TM; *Pseudomonas*, *Edwardsiella*, *Escherichia*; 567.)
- x 1976 Boever et al. (TI; *Mycobacterium chelonei*; 927–929.)
- 1978 Boever, W.J. (TI; *Mycobacterium chelonei*)
- x 1979 Tas'an et al. (DD; Indonesia; *Aeromonas*, *Proteus*, *Pseudomonas*, *Aerobacter*; 28.)
- x 1980 Irvine et al. (TM; *Escherichia coli*, *Aeromonas hydrophila*, *Pseudomonas* spp., *Staphylococcus* spp., *Streptococcus* spp.; 5.)
- 1980 Ohtomo et al.
- x 1981a Beusse et al. (TM; Florida; *Edwardsiella*, *Citrobacter*, *Proteus*; 101.)
- x 1981b Beusse et al. (TM; Florida; *Citrobacter*, *Staphylococcus*, *Proteus*; 118, 120.)
- x 1981 Campbell & Ladds (DD; Queensland; *Salmonella lohbruegge*; 178.)
- x 1981 Cardeilhac et al. (TM; Florida; *Salmonella heidelberg*; 144.)
- x 1981 Elliott et al. (DD; *Salmonella lohbruegge*, *Pseudomonas*, *Streptococcus*; 203–208.)
- x 1981 Jenkins, R.L. (TM; Florida; *Pseudomonas* spp., *Aeromonas hydrophila*; 129.)
- x 1984 Buergelt et al. (TM; Florida; *Pseudomonas putrefaciens*; 1333.)
- x 1984 Cornide, R.I. (TM; Cuba; *Leptospira* antibodies; 1.)
- x 1985 Morales et al. (TI; *Mycobacterium marinum*; 1230–1231.)
- x 1986 Morales, P. (TI; in capt.; *Mycobacterium marinum*; 43–48.)
- x 1987 Walsh et al. (TML; Florida; *Streptococcus faecium*, *Plesiomonas shigelloides*, *Pseudomonas putrefaciens*, *Escherichia coli*; 702–703.)
- x 1991 O'Shea et al. (TML; Florida; *Providencia*, *Proteus*, *Edwardsiella*, *Morganella*, *Pasteurella*, *Pseudomonas*; 171.)
- Baja California
- xD 1941b VanderHoof, V.L. (*Cornwallius*; Olig.; 1985.)
- xD *1942a VanderHoof, V.L. (*Cornwallius sookensis*; Olig.; 298–301.)
- xD 1963 Mitchell & Repenning (desmostylians; 11, 15–16.)
- D 1964 Allison, E.C.
- x *1965 Kilmer, F.H. (*Halianassa* (?) *allisoni*, n.sp.; 57–58, 65, 70–71.)
- xD 1970 Minch et al. (*Desmostylus*; 3149–3153.)
- x *1978b Domning, D.P. (*Dioplotherium*, *Dusisiren*, *Hydrodamalis*; Mioc.-Plioc.; 101–104, 147–149, 160–161.)
- 1983 Morris, W.J.
- xD 1990 Aranda-Manteca, F.J. (*Metaxytherium*, *Desmostylus*; Mioc., La Misi3n; 100, 103–104, 108, 111, pl. 3.)
- xD 1990 Ferrusquia-V., I. (*Desmostylus hesperus*; Mioc.; 15, 17, 22–26.)
- *1994 Aranda-Manteca et al. (*Metaxytherium arctodites*, n.sp.; Middle Mioc., La Misi3n)
- Behavior (General and Miscellaneous) (SEE ALSO: Birth

- and Breeding; Captivity, Sirenians in; Locomotion; Migration and Movements; Sound Production; Respiration and Diving; and under species)
- x 1876 Chapman, H.C. (TM; in capt.; 459-462.)
- x 1880 Murie, J. (TMM; in capt., 21-26; postures, 25-26, 45, pls. 5-7.)
- x 1881 Crane, A. (*Trichechus*; in capt.; 456-460.)
- x 1885a Woodward, H. (HG; gen. acc.; 464-465.)
- x 1905 Townsend, C.H. (TM; in capt.; feeding, swimming, & when tank drained; 91, 94, 97.)
- x 1906b Dexler & Freund (DD; play; 65.)
- x 1908b Gudernatsch, J.F. (TM; in capt.; 228-234.)
- x 1916 Anon. (TI; in capt.; swimming, when tank drained, etc.; 1421.)
- x 1920 Beebe, W. (TM; Guyana; 730-732.)
- x *1922 Golder, F.A. (HG; Bering Is.; eyewitness account by Khitrov; 238.)
- x 1924-
1925 Vosseler, J. (TI; in capt.; ?play, 222; general activity levels, 226-227.)
- x 1926 Derscheid, J.M. (TS; in capt.; resting on back at bottom; 25.)
- x 1946 Goodwin, G.G. (HG; 60-61.)
- x 1951b Moore, J.C. (TM; Florida; intelligence & learning, 31-32; "kissing" & nuzzling, 32-33.)
- x 1954 Lawrence, J.E. (TM; Florida; pop. acc.; 402-404.)
- x 1955 MacMillan, L. (DD; Australia; gen. acc.; 17-19.)
- x *1956 Moore, J.C. (TM; Florida; 1-23.)
- x 1957 Burton, M. (TML; gen. acc.; 272.)
- x *1961 Jonklaas, R. (DD; in capt.; 1-7.)
- x 1961 Silas, E.G. (DD; India; in capt.; use of flippers; 264-265.)
- x 1964 Moore, J.C. (TM; Florida; swimming; 7-8.)
- x *1966 Jarman, P.J. (DD; Kenya; fishermen's accounts; 82-88.)
- x *1967a Jones, S. (DD; India; in capt.; 218-219.)
- x 1967 Oke, V.R. (DD; in capt.; 220-221.)
- 1969 Evans & Bastian
- x 1969 Frye & Herald (TI; in capt.; under medical treatment; 1075-1076.)
- x 1969 Hartman, D.S. (TM; Florida; gen. acc.; 342-353.)
- x 1969 Herald, E.S. (TI; in capt.; 29-30.)
- 1970 Barada, B. (TM; Florida)
- x *1972 Caldwell & Caldwell (TM; Florida; mating, 446-448; play, 450; diurnal activity, 445; feeding, 454.)
- x 1972a Hartman, D.S. (TM; Florida; 21-22.)
- 1972b Hartman, D.S. (TM; Florida)
- x 1976 Allen et al. (DD; in capt.; sociality, "acrobatics," ?play; 39-40.)
- x 1976 Ligon, S.H. (DD; Australia; no diurnal periodicity; 580-581.)
- x 1976 Reynolds, J.E., III (TM; "body-surfing"; 211.)
- x 1977 Harris & Bertram (DD; Abu Dhabi; caught in nets only at night; 5.)
- x 1977 Nietschmann, B. (DD; Torres Strait; tidal cycles; 10-12, 14.)
- x 1978 Anderson & Birtles (DD; Queensland; scratching; 15.)
- x *1979 Anderson, P.K. (DD; review; 113-144.)
- x 1979 Barrett, S.K. (TM; Florida; near flood-control dams; 26.)
- x *1979 Hartman, D.S. (TM; Florida; 17-61, 64-142; daily activity, 41-43; comfort activities, 86-92; social behavior, 95-114, 132-133; play, 43, 108-110, 113-114, 134-135.)
- x 1979 Reynolds, J.E., III (TM; Florida; 47-53; "body-surfing" & "follow-the-leader," 51; activity patterns, 52.)
- x 1981a Anderson, P.K. (DD; behavior & conservation; 640-647.)
- x 1981b Anderson, P.K. (DD; gen. acc., 91-111; resting, 98.)
- x 1981 Brownell et al. (DD; Palau; idling & daily activity patterns; 31-34.)
- x 1981 Brownell, Ralls & Reeves (TM; Florida; research needs; 6.)
- x 1981 Campbell & Irvine (TM; in capt.; decreased activity in cold weather; 89.)
- x *1981a Reynolds, J.E., III (TM; Florida; 233-242; activity patterns, 235, 237-239.)
- x *1981b Reynolds, J.E., III (TML; Florida; social behavior, 436-449; "body-surfing" & "follow-the-leader," 444-445.)
- x 1981c Reynolds, J.E., III (TM; Florida; "body-surfing," "follow-the-leader," activity patterns; 28.)
- x 1982b Anderson, P.K. (DD; Shark Bay, Australia; encounters with dolphins, turtles, & cormorants; 94.)
- x 1982 Bengtson, J.L. (TM; Florida; daily activity patterns; role of behavioral tradition; 4668.)
- x 1983c Kinnaird, M.F. (TM; northeastern Florida; temporal & spatial distr. of behaviors; 16-19, 34-37.)
- 1983 Krushinskaya & Lisitsyna
- x 1983 Rathbun et al. (TM; Honduras; nocturnal due to hunting; 306.)
- x 1983 Tiedemann, J.A. (TML; Turkey Creek, Florida; "follow-the-leader" & other play-like behavior; 6.)
- x 1984b Best, R.C. (TI; activity budget; 374-375.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; nocturnal where hunted; 976.)
- x 1988a O'Shea, T.J. (TML; Florida; social organization & learning; 192.)
- x 1990 Marsh & Rathbun (DD; Queensland; activity cycles; 91-93.)

- x 1991 O'Shea et al. (TML; Florida; effects of red tide neurotoxin; 170, 172, 174-175.)
- x 1993 Loyer, B. (DD; Vanuatu; observations on lone individual; 54-55.)
- Behavior, Aggregative
- x 1888 Jentink, F.A. (TS; Liberia; 34.)
- x 1890 Büttikofer, J. (TS; Liberia; schools of manatees dangerous to canoes; 2: 392.)
- x 1906 Annandale, N. (DD; India & Andaman Islands; m241.)
- x 1923 Petit, G. (DD; Madagascar; m77.)
- x 1924a Petit, G. (DD; Madagascar; groups of 4 or 5; 126.)
- x 1929 Prater, S.H. (DD; Andaman Islands; m987.)
- x *1935 Barrett, O.W. (TM; Central America; 216-217.)
- x 1936 Lopes, A.P. (DD; Mozambique; herd of >50; 36.)
- x 1943 Krumholz, L.A. (TM; Florida; 272.)
- x 1944 Pereira, M.N. (TI; groups of 10-30 in mating season; 54.)
- x 1951b Moore, J.C. (TM; Everglades, Florida; 23-25.)
- x 1953 Moore, J.C. (TM; Florida; 120-121, 156.)
- x *1956 Moore, J.C. (TM; Florida; 2, 4-23.)
- x 1957 Cadenat, J. (TS; Senegal; group of 15; 1369.)
- x 1961 Jonklaas, R. (DD; Sri Lanka; 7.)
- x 1964a Bertram & Bertram (TMM; Guyana; 117.)
- x 1965 Layne, J.N. (TM; Florida; 166-168.)
- x *1966 Jarman, P.J. (DD; Kenya; 83.)
- x 1966 Thomas, D. (DD; India; herds of up to 400-500; 80-81.)
- x 1967a Jones, S. (DD; India; in capt.; 218-219.)
- x 1967 Welsby, T. (DD; Moreton Bay, Queensland; herd "3 miles in length," 1: 105, 2: 234-235; "80 or more," 2: 234; "dozens," 2: 257.)
- x 1968 Charnock-Wilson, J. (TM; Belize; 294.)
- x 1969 Allsopp, W.H.L. (TM; Guyana; feeding in groups; 346, 348.)
- x 1969 Hartman, D.S. (TM; Florida; 346.)
- x 1971 Hughes & Oxley-Oxland (DD; Mozambique; 299-301.)
- x 1972 Heinsohn, G.E. (DD; Australia; 208.)
- x 1973 Cantley, R. (DD; Torres Strait; herds; 34.)
- x 1974 Heinsohn & Spain (DD; Queensland; shark net captures; 148.)
- x 1974 Mondolfi, E. (TM; Venezuela; aggregations in lagoons; 14-15.)
- x 1975 Lipkin, Y. (DD; Red Sea; 94.)
- x 1976 Heinsohn & Wake (DD; Australia; 17.)
- x 1976 Heinsohn, Spain & Anderson (DD; Australia; 22-23.)
- x 1976 Ligon, S.H. (DD; Australia; 580-582.)
- x 1976 Paz & Ilani (DD; Gulf of Aqaba; group of 10-12; 74.)
- x 1977 Campbell & Irvine (TM; Florida; feeding on uprooted seagrass; 250.)
- x 1977 Harris & Bertram (DD; Abu Dhabi; herd of "100 or more"; 5-6.)
- x 1977 Heinsohn et al. (DD; Australia; 239-240.)
- x 1978 Anderson & Birtles (DD; Queensland; 6, 13, 20-21.)
- x 1978 Anderson & Heinsohn (DD; Australia; questionnaire survey; 15-17, 20.)
- x 1978 Heinsohn et al. (DD; Australia; 91-92.)
- x 1978 Marsh et al. (DD; review of herd sizes; 166.)
- x 1979 Anderson, P.K. (DD; Australia; separation between individuals, 127; groups, 136, 141.)
- x 1979 Hartman, D.S. (TM; Florida; group sizes; 94.)
- x 1979 Leatherwood, S. (TM; Indian & Banana Rs., Florida; group sizes; 52.)
- x 1979 Reynolds, J.E., III (TM; Florida; herd structure; 47-52.)
- x 1981a Anderson, P.K. (DD; social interactions; 644-645.)
- x 1981 Elliott, M.A. (DD; Northern Territory, Australia; group sizes; 62.)
- x 1981 Marsh et al. (DD; Wellesley Islands, Queensland; 263-265.)
- x 1981 Nietschmann & Nietschmann (DD; Torres Strait; 58-59.)
- x 1981 Prince et al. (DD; Western Australia; group sizes; 73, 75.)
- x 1981a Reynolds, J.E., III (TM; Florida; herd size; 238-239.)
- x *1981b Reynolds, J.E., III (TML; Blue Lagoon, Miami, Florida; herd structure & social behavior; 436-449.)
- x 1981c Reynolds, J.E., III (TM; Florida; group size & structure; 27.)
- x 1982a Anderson, P.K. (DD; Shark Bay, Australia; group sizes; 76, 78, 82-83.)
- x 1982b Anderson, P.K. (DD; Shark Bay, Australia; response to boats, 88-89; functions of aggregations, 97-98.)
- x 1982 Irvine et al. (TM; western Florida; group sizes; 623, 625-627.)
- x 1982 Rathbun et al. (TM; north of Florida; group sizes; 153-165.)
- x 1982 Robineau & Rose (DD; Djibouti; 236.)
- x 1983a Kinnaird, M.F. (TM; Florida; group sizes, 9, 12, 25, 28; in warm-water outfalls, 16, 25, 40.)
- x 1983 Kochman et al. (TM; Crystal R., Florida; areas used for feeding, resting, social behavior, & travel; 108, 111-115, 117-120.)
- x 1983a Shane, S.H. (TM; Florida; at warm-water sources; pop. acc.; 40-44.)
- x 1983b Shane, S.H. (TM; Brevard Co., Florida; warm-season group sizes; 4-5, 8.)
- x 1983 Tiedemann, J.A. (TML; Turkey Crk., Florida; 3, 6.)
- x 1984c Anderson, P.K. (DD; Queensland; group sizes; 39.)

- x 1984 Marsh, Heinsohn & Marsh (DD; Queensland; herd of 63; 775-776.)
- x 1984 Nietschmann, B. (DD; Torres Strait; responses to weather; 640.)
- x 1984 Shane, S.H. (TM; Brevard Co., Florida; at power plants; 182-185.)
- x 1985 Bengtson & Fitzgerald (TM; Florida; keeping group together or greeting with vocalizations; 817.)
- x 1985 Kochman et al. (TM; Crystal R., Florida; temporal & spatial distr.; 921-924.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; correlated with salinity; 1008.)
- x 1986a Marsh, H. (DD; Torres Strait; group sizes; 62-63.)
- x 1986 Prince, R.I.T. (DD; Western Australia; group sizes; 9-11, 35.)
- x 1987 Estrada & Ferrer (TM; western Cuba; group sizes; 3-4.)
- x 1988 Provancha & Provancha (TM; Banana R., Florida; group sizes & causes of aggregations; 335-336.)
- x 1988 Rathbun et al. (DD; Palau; group sizes; 268.)
- x 1989 Bayliss & Freeland (DD; Gulf of Carpentaria, Australia; group sizes; 149.)
- x *1989a Preen, A. (DD; Arabian region; group sizes; 42-46, 50-51, 58-60, 63, 75-78, 81, 84-86, 94-97, 101-102, 110-112, 181-183, 193-194, 200.)
- x 1989b Preen, A. (DD; Queensland; herd sizes; 383.)
- x 1991 Lefebvre & Kochman (TML; Florida; use of Crystal & Homosassa Rs.; 299-304.)
- x 1991 O'Shea & Salisbury (TMM; Belize; group sizes; 158.)
- Behavior, Agonistic and Territorial
- x 1834 Ruppell, E. (DD; Red Sea; males fighting in February & March; 113.)
- x 1869 Marcoy, P. (*Trichechus*; South America; 2: 151.)
- x 1874b Anon. (TM; Florida; defense against hunters; 446.)
- x 1875 Marcoy, P. (*Trichechus*; South America; 2: 188-189.)
- x 1906 Annandale, N. (DD; ?fighting for females; m243.)
- x 1923 Petit, G. (DD; fighting for females; m77.)
- x 1924-1925 Vosseler, J. (TI; in capt.; preferred locations in tank; 221.)
- x 1940 Pocock, R.I. (DD; possible use of tusks; 332.)
- x 1948 Bessac & Villiers (TS; cow believed to kill or drive off calf if mated again before weaning; 188.)
- x 1953 Fernand, V.S.V. (DD; use of tusks doubtful; 142.)
- x 1955 MacMillan, L. (DD; fighting rare, 18; ?territory, m19.)
- x 1955 Severin, K. (TML; in capt.; calf killed by adult; 149.)
- x 1956 Moore, J.C. (TM; Florida; ?agonistic behavior; 10-11.)
- x 1958 Leakey, L.S.B. (DD; East Africa; in rivers; 19-20.)
- x 1961 Jonklaas, R. (DD; territorial behavior; 6-7.)
- x 1967 Welsby, T. (DD; supposed fighting with tusks; 2: 234.)
- x 1972 Heinsohn, G.E. (DD; Australia; possible territoriality; 211.)
- x 1978 Husson, A.M. (TMM; Suriname; overturning boats to get at bananas; 338.)
- x 1979 Anderson, P.K. (DD; agonistic behavior, 127; ?home ranges, 140.)
- x 1979 Hartman, D.S. (TM; Florida; 97-98, 105, 114, 133-134.)
- x 1982 Bengtson, J.L. (TM; Florida; sex difference in size of home ranges; 4668.)
- x 1984 Marsh, Heinsohn & Marsh (DD; fighting with tusks; 780.)
- x *1989b Preen, A. (DD; Queensland; males fighting in mating herds; 384-386.)
- x 1993 Harling, R. (DD; Shark Bay, Australia; lekking; pop. acc.; 10-11.)
- Behavior, Epimeletic
- x *1899 Steller, G.W. (HG; protecting calves, 197; aiding wounded individuals, 199.)
- x 1906 Annandale, N. (DD; not observed carrying young; 243.)
- x 1918 Cuní y Valera, L.A. (TM; Cuba; wounded animal helped by others; 95.)
- x 1923a Petit, G. (DD; carrying young; 78.)
- x *1925 Steller, G.W. (HG; aiding wounded individuals; 232-233.)
- x 1928 Prater, S.H. (DD; Red Sea; 84.)
- x *1929 Prater, S.H. (DD; carrying young; 987.)
- x *1937 Barbour, T. (TM; Florida; teaching young to breathe; 107.)
- x 1937 Promus, J. (DD; Australia; herds protecting calves from sharks; 41.)
- x 1943 Krumholz, L.A. (TM; Florida; bull ?diverting pursuers' attention from cow & calf; 272.)
- x 1944 Pereira, M.N. (TI; making underwater hiding places for young, 56; male assisting at birth, 60; nursing >1 year, 60.)
- x 1946 Goodwin, G.G. (HG; 61.)
- x 1948 Bessac & Villiers (TS; believed to nurse >1 year unless mated again; 188.)
- x 1951b Moore, J.C. (TM; teaching young to breathe, nursing; 27.)
- x 1953 Moore, J.C. (TM; Florida; 121.)
- x *1955 MacMillan, L. (DD; Australia; teaching young to breathe; 18.)
- x *1956 Moore, J.C. (TM; Florida; nursing; 19-20.)
- x 1957 Moore, J.C. (TM; Florida; not teaching young to

- breathe; 137-138.)
- x 1958 Leakey, L.S.B. (DD; East Africa; nursing upright in water; 20.)
- x 1958 Loftin, H. (*Trichechus*; teaching young to breathe; 256.)
- 1963 Bertram, G.C.L. (HG, TI)
- x 1966 Jarman, P.J. (DD; Kenya; position of nursing young; 83.)
- x 1966 Thomas, D. (DD; India; holding & nursing young; 80.)
- x 1967 Welsby, T. (DD; Moreton Bay, Queensland; mother protecting calf from shark & protecting netted calf; 2: 234-235.)
- x 1968 Charnock-Wilson, J. (TM; Belize; nursing; 294.)
- x 1971 Kingdon, J. (DD; East Africa; attempting to interfere with netting of other individuals; 397.)
- x 1979 Anderson, P.K. (DD; Australia; swimming positions of cow & calf, 129-130; protection of calves & ?communication of traditional knowledge, 137.)
- x 1979 Hartman, D.S. (TM; Florida; 97, 133; cow-calf behavior & nursing, 110-114, 121-122, 137.)
- x 1980 Dekker, D. (TM; in capt.; nursing, 23-24; protecting calf, 24.)
- x 1981a Anderson, P.K. (DD; cow-calf behavior; 644.)
- x 1981 Marsh et al. (DD; Australia; males on outside of herd; 265.)
- x 1981 Odell, D.K. (TM; in capt.; nursing; 133.)
- x 1981b Reynolds, J.E., III (TML; Florida; nursing, flight, protection of calves, 442-443; ?leaving calf alone while foraging, 443.)
- x 1981 Santiapillai, C. (DD; Sri Lanka; cows trying to free calves from nets; 4.)
- x 1981 Zeiller, W. (TM; in capt.; helping young to breathe; 109.)
- x 1982b Anderson, P.K. (DD; Shark Bay, Australia; cow-calf behavior & nursing; 93.)
- x 1982 Milne & Milne (TML; care of young; pop. acc.; 154-158.)
- x *1984a Anderson, P.K. (DD; nursing; 510.)
- x 1984 Hall, A.J. (TM; Florida; photos of nursing & "grooming"; 405, 410-411.)
- x 1984b White, J.R. (TM; in capt.; mother failing to help calf after birth; 372.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; mother remaining near captured calf; 1010.)
- x 1986 Kinnaird, M.F. (TM; bulls carrying calves with their flippers; 10.)
- Behavior, Et-epimeletic (SEE ALSO: Behavior, Ingestive)
- x 1924-
- 1925 Vosseler, J. (TI; in capt.; attempted nursing by calf on unrelated calf; 176.)
- x 1956 Moore, J.C. (TM; Florida; "greeting" by young, 17; nursing, 19-20.)
- x 1975b Anon. (TM; nursing; 7.)
- x 1976 Reynolds, J.E., III (TM; nursing; 213.)
- x 1979 Hartman, D.S. (TM; Florida; alarm calls; 96, 99-100, 113-114.)
- x 1979 Odell & Reynolds (TM; cow & calf, separated by dam, 575-576.)
- x 1981b Reynolds, J.E., III (TML; Florida; nursing; 442.)
- x 1982b Anderson, P.K. (DD; Shark Bay, Australia; nursing; 93.)
- Behavior, Ingestive (SEE ALSO: Behavior, Epimeletic; Behavior, Et-epimeletic; Food; Mastication; Milk)
- x 1861 Du Chaillu, P.B. (TS; eating leaves fallen into water, & aquatic grass; 367.)
- x 1876 Chapman, H.C. (TM; in capt.; 459, 461.)
- x 1878 Brown, A.E. (TMM; in capt.; plants, 295; mud, 296.)
- x 1880 Murie, J. (TMM; use of lips; 22, 26, 31-32, pls. 6-7.)
- x *1881 Crane, A. (*Trichechus*; in capt.; 458-460.)
- x 1885a Woodward, H. (*Trichechus*; use of forelimbs; m458.)
- x 1895 Bangs, O. (TM; Florida; feeding on mangroves & on shore; 787.)
- x *1899 Steller, G.W. (HG; 185-186, 189, 198.)
- x 1905 Townsend, C.H. (TM; in capt.; eating from hand above water; 91, 94, 97.)
- x 1906 Annandale, N. (DD; India; 242-243.)
- x 1906b Dexler & Freund (DD, 55-57; manatee, 57.)
- x 1906c Dexler & Freund (DD; feeding trails; 574.)
- 1907 Heilprin, A.
- 1920 Beebe, W. (TM; Guyana)
- x 1923a Petit, G. (DD; Madagascar; 75.)
- x 1924-
- 1925 Vosseler, J. (TI; in capt.; coprophagy, 122-123; use of lips, 125-126; feeding not only nocturnal, 226; DD, German East Africa, ?use of tusks, 225-226.)
- x *1925 Steller, G.W. (HG; 230-232.)
- x *1928 Prater, S.H. (DD; browsing, 89-90; chewing, 92.)
- x *1935 Barrett, O.W. (TM; Central America; 217.)
- x 1937 Turner, J.P. (TM; Guyana; photo of animal feeding partly out of water; 498.)
- x 1939 Coates, C.W. (TI; in capt.; food position preference; eating sand & mud; 143.)
- x 1940 Pocock, R.I. (DD; possible use of tusks; 332, 336.)
- x *1944 Pereira, M.N. (TI; feeding under floating meadows, 47, 56; bending down bushes with flippers, 57; feeding at bottom, 56-57.)
- x 1946 Goodwin, G.G. (HG; 60-61.)

- x 1948 Bessac & Villiers (TS; believed to swallow 1 pebble per year; 189.)
- x 1956 Harry, R.R. (DD; Palau; use of tusks; 22.)
- x 1956 Moore, J.C. (TM; Florida; nursing; 19-20, 23.)
- x 1957 Gohar, H.A.F. (DD; Red Sea; ?use of flippers, 9, 42; use of snout bristles, 13; making & eating heaps of seagrasses, 42.)
- x *1959 Jones, S. (DD; in capt.; feeding at surface, etc.; 200-201.)
- x 1961 Jonklaas, R. (DD; 4-5.)
- x 1961 Silas, E.G. (DD; 264.)
- 1963 Bertram, G.C.L. (TM, HG)
- x 1964a Bertram & Bertram (*Trichechus*; 118.)
- x 1966 Jarman, P.J. (DD; Kenya; feeding trails; 86, 88.)
- x 1966 Thomas, D. (DD; India; eating seagrass rhizomes; feeding with tail up; 80.)
- x 1967 Oke, V.R. (DD; in capt.; feeding only at bottom or from hand; 220.)
- x 1967 Welsby, T. (DD; Moreton Bay, Queensland; rooting & damage to oyster banks; 1: 103-104, 2: 239-240.)
- x 1968a Bertram & Bertram (DD, 388; *Trichechus*, 389.)
- x 1969 Allsopp, W.H.L. (TM; preferred growth habits of food plants; 345-346.)
- x 1971b Domning, D.P. (hydrodamalines; Pacific; evolution; 218.)
- 1972b Anon. (TM; Florida; drinking fresh water)
- x 1972 Heinsohn, G.E. (DD; Australia; calves grazing; 210.)
- x 1972 Kenchington, R.A. (DD; Australia; calves grazing; 886.)
- x 1974 Mondolfi, E. (TM; Venezuela; pulling grasses into water with flippers; 14.)
- x 1975b Anon. (TM; Florida; nursing; 7.)
- x 1976 Allen et al. (DD; in capt.; feeding only at bottom; 36.)
- x 1976 Heinsohn, Spain & Anderson (DD; Australia; raising silt clouds; 22.)
- x 1976 Ligon, S.H. (DD; Australia; feeding with tail up, raising silt clouds; m580.)
- x 1976 Marmol B., A.E. (TI; Peru; eating vegetation on riverbanks; 32.)
- x 1977b Domning, D.P. (North Pacific sirs.; evolution; 353-361.)
- x 1977 Heinsohn et al. (DD; feeding habits; 237-238.)
- x 1977 Marsh et al. (DD; feeding habits; 288-289.)
- x 1977 Nietschmann, B. (DD; Torres Strait; seagrasses torn rather than cropped cleanly when tidal current strong; 10.)
- x *1978 Anderson & Birtles (DD; Queensland; diving, silt clouds, feeding tracks; 8-13, 18-20.)
- x *1978a Domning, D.P. (TI; functional anatomy of lips, jaws, & neck; 57-69.)
- x 1978b Domning, D.P. (N. Pacific sirs.; 116-124, 131, 140-144.)
- x 1978 Powell, J.A., Jr. (TM; eating flesh of fish & leaving bones; 442.)
- x 1979 Anderson, P.K. (DD; different feeding modes for large & small seagrasses, 124-125; flippers probably not used, 125.)
- x *1979 Hartman, D.S. (TM; Florida; 42, 44, 47, 51-58, 85-86, 95, 112, 122; drinking fresh water, 58-59; feeding partly out of water, 85; rooting, 90, 92; regurgitation, 93, 95.)
- x 1979 Tas'an et al. (DD; in capt., Jakarta; eating floating seagrasses; 8-9.)
- x 1980 Belitsky & Belitsky (TM; Dominican Republic; silt clouds; 318.)
- x 1980 Dekker, D. (TM; in capt.; pregnant female & calf; 21, 23-24, 26.)
- x *1980 Domning, D.P. (TI, TML; food position preference; experiments; 544-547.)
- x 1980 Kataoka & Asano (DD; in capt.; feeding at bottom & surface; 270.)
- x 1980 Marsh, H. (DD; Australia; ?non-use of tusks; 199.)
- x 1981a Anderson, P.K. (DD; persistent grazing of preferred sites, 640-641; uprooting seagrasses, 641.)
- x *1981 Best, R.C. (review; 7-24.)
- x 1981 Bingham, B. (TM; Florida; drinking from hose; pop. acc.; 90-91.)
- x 1981 Kataoka & Asano (DD; in capt.; feeding at bottom & surface; 200.)
- x 1981 Odell, D.K. (TM; Florida; in capt.; newborn calf; 131, 133.)
- x 1981 Powell & Waldron (TM; St. Johns R., Florida; eating *Eichhornia* & *Vallisneria*; 49-50.)
- x *1981a Reynolds, J.E., III (TM; Florida; 236-237, 240.)
- x 1981 Santiapillai, C. (DD; Sri Lanka; stones in intestines; 4.)
- x 1981 Zeiller, W. (TM; Florida; in capt.; conditioning to press trigger to obtain fresh water; 104.)
- x 1982a Anderson, P.K. (DD; Shark Bay, Australia; ?grazing scars in seagrass beds; 81-82.)
- x 1982b Anderson, P.K. (DD; Shark Bay, Australia; eating *Amphibolis* leaves & not rhizomes; ?economization of energy; 90-91, 96-97.)
- x 1982 Barnett & Johns (DD; Queensland; 522.)
- x 1982 Marsh et al. (DD; Australia; food choice, 61-65; ?non-use of tusks, 65.)
- x 1982 Rathbun et al. (TM; Georgia; drinking fresh water from dock; 153.)
- x 1982 Scott & Powell (TM; Florida; commensal feeding by herons; 215-216.)
- x 1983 Bengtson, J.L. (TM; food consumption in wild; experiments; 1190-1191.)

- x 1983a Kinnaird, M.F. (TM; Florida; drinking fresh water, 25; feeding half out of water, 34.)
- x 1983 Lainson et al. (TI; coprophagy as ?route of coccidial infection; 289.)
- x 1983a Shane, S.H. (TM; Florida; photo of animal feeding on bank grasses; 41.)
- x 1984c Anderson, P.K. (DD; Queensland; control by tidal cycle; feeding trails & completeness of seagrass removal; 39–40.)
- x 1984 Lomolino & Ewel (TM; consumption rate; 177.)
- x 1984 Packard, J.M. (TM; rooting & grazing seagrasses; 21–22.)
- x 1985 Etheridge et al. (TM; chewing rate & time spent feeding; 21–23.)
- x 1985 Reynolds & Wilcox (TML; Florida; feeding partly out of water; 417, 421.)
- x 1986a Anderson, P.K. (DD; Shark Bay, Australia; eating only leaves of *Amphibolis* vs. entire plants of *Halodule*; 478, 483–485, 487–488.)
- x 1986 Colmenero-R., L.C. (TMM; Mexico; 595–597; feeding partly out of water, 596.)
- x 1986 O'Shea, T.J. (TM; Florida; bottom-feeding on acorns; 183–185.)
- x 1986 Prince, R.I.T. (DD; Australia; feeding trails & silt clouds; 15–16, 19–21, 27, 34–36.)
- x 1986 Timm et al. (TI; Ecuador; use of flippers in feeding on emergent grasses; 151–152.)
- x 1986 Williams, T.R. (DD; Papua New Guinea; making feeding trail; 65.)
- x 1989a Anon. (TM; Florida; drinking from hose; 187.)
- x 1989 Baugh et al. (TML; feeding on *Spartina*; 89.)
- x 1989c Domning, D.P. (rytidontines & DD; use of tusks; 426.)
- x 1989d Domning, D.P. (*Xenosiren yucateca*; use of jaws & tusks; 435–436.)
- x 1989a Preen, A. (DD; Arabian region; rhizivory ?limited to soft sediments; 120–121.)
- x 1990a Domning, D.P. (rhizivory experiments; 34–36.)
- x 1991 Haigh, M.D. (TMM; Guyana; feeding partly out of water; 339, 342.)
- x *1991 Provancha & Hall (TML; Florida; impact on seagrass beds; 91–97.)
- x 1991 Toledo & Domning (extinct dugongids; 135.)
- *1992 Colares & Colares (TI; in capt.; food preferences)
- Behavior, Investigative, and Sense Perception (SEE ALSO: Sense Organs; Sound Production)
- x 1867 Claudius, M. (HG & other sirs.; hearing; 1–12.)
- 1868 Claudius, M. (HG; hearing)
- x 1876 Chapman, H.C. (TM; in capt.; sensitivity of ?smell; 454.)
- 1878 Brown, A.E. (TM; sensitivity of ?smell; 295.)
- x *1906b Dexler & Freund (DD; hearing, 52, 64–66; touch, 53, 64–65; taste, 59; smell, 59–60; sight, 60–64.)
- x 1912a Matthes, E. (hearing; 597–599.)
- x 1923 Petit, G. (DD; sight, hearing, smell; 77.)
- x 1924–
- 1925 Vosseler, J. (TI; taste & smell, 123–124, 126, 179–180, 217–220; taste/smell experiments, 217–219; hearing, 220–221.)
- x 1929 Petit & Rochon-Duvigneaud (DD; hearing, smell, taste, vision, touch, 130–132; vision, 137–138.)
- x 1946 Goodwin, G.G. (HG; hearing; 61.)
- x 1951b Moore, J.C. (TM; Florida; raising eyes above surface; 27–28.)
- x 1956 Moore, J.C. (TM; Florida; greeting; 11–12, 22.)
- x 1961 Jonklaas, R. (DD; taste, 4–5; sight, hearing, 6.)
- 1963 Bertram, G.C.L. (TM; Guyana)
- x 1964a Bertram & Bertram (TMM; Guyana; 118–119.)
- x 1967 Oke, V.R. (DD; in capt.; response to gong; 221.)
- 1967 Scott-Johnson, C. (hearing)
- x 1976 Reynolds, J.E., III (TM; communication, curiosity; 211.)
- x 1978 Anderson & Birtles (DD; Queensland; raising head above water, 7, 16, 18; ?investigating observers, 16.)
- x 1979 Anderson, P.K. (DD; Australia; investigating observers; 137–138.)
- x *1979 Hartman, D.S. (TM; Florida; exploration of habitat, 35–36; nibbling water hyacinth, 53; investigating disturbances, 59, 99, 128–131; investigating inanimate objects, 60–61, 127; chemoreception, 95–96, 118–120; hearing, 115–116, 128; vision, 116–118; touch, 118.)
- x 1979 Reynolds, J.E., III (TM; Florida; mechanoreception & body hairs; 52.)
- x *1980 Bullock et al. (TI; auditory evoked potentials; 130–133.)
- x 1980 Lowell & Flanigan (chemoreception; 56–57.)
- x 1981a Anderson, P.K. (DD; investigation & range of detection of boats & divers; 642–645.)
- x 1981b Anderson, P.K. (DD; Australia; investigating observers; 105–106.)
- x 1981b Reynolds, J.E., III (TML; Florida; hearing, 446–447; ?detecting water movement with body hairs, m447; vision, ?smell, touch, 448.)
- x 1982b Anderson, P.K. (DD; Shark Bay, Australia; investigating observers; 88–89.)
- x 1982 Cohen et al. (TM; possible color vision; 197–202.)
- x 1983b Kinnaird, M.F. (TM; Florida; in capt.; experiments on responses to high-intensity sound; 3–4.)
- x *1983 Piggins et al. (TI; vision; 121–127.)
- x 1985 Bengtson & Fitzgerald (TM; Florida; hearing sensitivity; 817–818.)
- x 1986a Anderson, P.K. (DD; Shark Bay, Australia; investigating observers; 484–485.)
- x 1988 Fischer, M.S. (TM; ear & hearing; 375–377.)
- x 1989 Packard et al. (TML; Florida; seeking warm water; 699.)

- 1990 Klishin et al. (TI; hearing)
- 1990 Popov & Supin (TI; hearing)
- x *1992 Ketten et al. (TML; hearing, 77-95; taste, 84, 92.)
- x 1993 Loyer, B. (DD; Vanuatu; investigating divers; "excited" by the color red; 54-55.)
- Behavior, Sexual (SEE ALSO: Birth and Breeding)
- x 1869 Marcoy, P. (*Trichechus*; South America; 2: 150-151.)
- 1875 Marcoy, P. (*Trichechus*; South America; 2: 188-189.)
- x *1899 Steller, G.W. (HG; 189, 198.)
- x 1923 Petit, G. (DD; Madagascar; 77-78.)
- x 1924-
- 1925 Vosseler, J. (TI; in capt.; 131, 175-180, 217; supposedly longer flippers of male used to embrace female, 175.)
- x *1925 Steller, G.W. (HG; 231, 233.)
- x 1935 Barrett, O.W. (TM; Central America; 217.)
- x 1941-
- 1943 Pereira, M.N. (TI; Brazil; mating; 102.)
- x *1944 Pereira, M.N. (TI; mating herds; 58-60.)
- x 1946 Goodwin, G.G. (HG; 61.)
- x 1946 Moore, J.C. (TM; Florida; ?mating; 58.)
- x 1956 Moore, J.C. (TM; Florida; 12-15, 22.)
- x 1961 Jonklaas, R. (DD; 7.)
- 1963 Bertram, G.C.L. (TM, HG)
- x 1964a Bertram & Bertram (TMM; 119.)
- x 1966 Jarman, P.J. (DD; Kenya; 83.)
- x *1967a Jones, S. (DD; India; in capt.; 219.)
- x 1968a Bertram & Bertram (*Trichechus*; m390.)
- x 1968 Charnock-Wilson, J. (TM; Belize; 294.)
- x *1972 Caldwell & Caldwell (TM; Florida; mating herd; 446-448.)
- 1972 Dieckman, L.E.
- x 1975 Pinto da Silveira, E.K. (TI; mating herds; 225-226.)
- 1977 Balderamos, L.P. (TM; Belize; mating herd)
- x *1978 Anderson & Birtles (DD; Queensland; 12-15, 20-21.)
- x 1979 Anderson, P.K. (DD; Australia; categorization of behavioral elements; 128-129.)
- x *1979 Hartman, D.S. (TM; Florida; 16, 37, 43, 83, 86, 89-90, 95, 99-109, 114, 136-137; homosexual behavior, 99, 101, 106-108, 137.)
- x 1979 Reynolds, J.E., III (TM; Florida; estrous herds; 47, 50.)
- x 1980 Dekker, D. (TM; in capt.; 21.)
- x 1980 Telander, R. (TM; Florida; photo of mating herd; 34-35.)
- x 1981 Jenkins, R.L. (TM; Florida; in capt.; mating; 129-130.)
- x 1981b Reynolds, J.E., III (TML; Florida; mating herds; 441.)
- x 1981 Zeiller, W. (TM; Florida; in capt.; mating; 109-110.)
- x 1982 Bengtson, J.L. (TM; Florida; males patrolling large ranges in search of estrous females; 4668.)
- x 1984c Anderson, P.K. (DD; Queensland; possible mating; 40-41.)
- x 1984 Hall, A.J. (TM; Florida; photo of mating herd; 406-407.)
- x 1984 Marsh, Heinsohn & Marsh (DD; review; 780-781.)
- x 1985 Morales et al. (TI; in capt.; masturbation; 1231.)
- x *1989b Preen, A. (DD; Queensland; mating; 382-387.)
- 1991 Preen, A.R. (DD; Queensland; mating; pop. acc.)
- x 1992 Marmontel et al. (TM, TI; 305-306.)
- x 1993 Harling, R. (DD; Shark Bay, Australia; lekking; pop. acc.; 10-11.)
- Behavior, Shelter-seeking or Escape (SEE ALSO: Hunting and Capture; Migration and Movements; Natural Death or Injury; Temperature, Effects of)
- x 1874b Anon. (TM; Florida; escape; 446.)
- 1879-
- 1882 Alston, E.R.
- x *1899 Steller, G.W. (HG; 189, 198-199.)
- x *1906b Dexler & Freund (DD; escape; 52.)
- x 1928 Prater, S.H. (DD; Red Sea; 84.)
- x 1934 Thomson, D.F. (DD; Australia; coming inshore to escape sharks; 242.)
- x *1935 Barrett, O.W. (TM; Central America; escape, 217; habits changed by hunting, 216.)
- x 1941 Scholander & Irving (TM; Florida; jumping out of water; 170.)
- x 1943 Krumholz, L.A. (TM; Florida; 272.)
- x 1944 Pereira, M.N. (TI; making hiding places in summer under floating meadows, 46-47, 56; cow fleeing if calf harpooned, 61.)
- x 1953 Moore, J.C. (TM; Florida; 121.)
- x 1957 Cadenat, J. (TS; escaping when surprised out of water; 1369.)
- x 1957 Moore, J.C. (TM; Florida; calves; 138.)
- x 1964a Bertram & Bertram (*Trichechus*; submergence; 117-119.)
- x 1964 Johnson, D.H. (DD; Arnhem Land, Australia; seeking protected waters; 507.)
- x 1965 Lluch B., D. (TMM; Mexico; ?helping to deepen pools in lakes for refuge in dry season; 414.)
- x 1966 Jarman, P.J. (DD; Kenya; seeking protected waters; 84.)
- x 1966 Thomas, D. (DD; India; young ?staying farther from shore; 80.)
- x 1967a Jones, S. (DD; India; favoring protected waters & lee coasts; 216.)
- x 1967 Welsby, T. (DD; Moreton Bay, Queensland; fleeing from boats; 1: 105, 2: 234.)
- x 1971 Kingdon, J. (DD; East Africa; avoiding rough

- water; 394-397.)
- x 1972 Heinsohn, G.E. (DD; Australia; favoring protected waters; 207, 211.)
- x 1974b Dekker, D. (TM; Suriname; swimming away from boats with "head and shoulders above water"; 2.)
- x 1975 Lipkin, Y. (DD; Red Sea; feeding & resting areas; 88-90, 94.)
- x 1975 Pinto da Silveira, E.K. (TMM, avoiding shark attack; TI, deserting young when attacked; 226.)
- x 1976 Heinsohn & Wake (DD; Australia; favoring protected waters; 16-18.)
- x 1976 Heinsohn, Marsh & Spain (DD; Australia; behavior when netted; 119-120.)
- x 1978 Anderson & Birtles (DD; Queensland; sheltered feeding areas, 10, 17-18; response to observers, 15-16.)
- x 1978 Anderson & Heinsohn (DD; Australia; seeking protected waters; 19.)
- x 1979 Anderson, P.K. (DD; flattening against or hugging bottom, 128, 139; resting & calving sites, 132-133, 139-140; avoidance of SCUBA & boats, 138; effects of hunting pressure, 139.)
- x *1979 Hartman, D.S. (TM; Florida; use of warm-water refugia, 17-27; estrous females escaping bulls, 37, 101-106; reactions to storms, 40; reactions to disturbances, fish, etc., 59-60, 96, 99-100, 113-117, 119, 126-128, 130-131, 135; at parturition, 110.)
- x 1979 Reynolds, J.E., III (TM; Florida; cows protecting calves; 50-51.)
- x 1980 Belitsky & Belitsky (TM; Dominican Republic; ?avoiding exposed coasts; 317.)
- x 1980 Dekker, D. (TM; in capt.; fright reactions of newborn; 24.)
- x 1980 Sander, H.E. (DD; Papua New Guinea; changing feeding areas & feeding at night to avoid hunters; 15-16.)
- 1980 Wilcox, J.R. (TM; Florida; use of power plants)
- x 1981a Anderson, P.K. (DD; movements in response to weather & disturbance, & for parturition, 641; avoiding boats & divers, 643-644.)
- x 1981 Jones, S. (DD; India; sheltering behind islands; 50.)
- x 1981 Nietschmann & Nietschmann (DD; Torres Strait; seeking protected & turbid waters; 58.)
- x 1981 Powell & Waldron (TM; use of Blue Spring, Florida; 41-46.)
- x 1981 Powell et al. (TM; Puerto Rico; favoring calm waters; 644.)
- x *1981 Powell, J.A., Jr. (TM; use of Crystal R., Florida; 34-37.)
- x 1981 Rose, P.M. (TM; Florida; use of power plants, 1977-1978; 22-24.)
- 1981 Shane, S.H. (TM; Florida; use of power plants)
- x 1982a Anderson, P.K. (DD; Shark Bay, Australia; desirability of access to both shoal & deep water; 82.)
- x 1982b Anderson, P.K. (DD; Shark Bay, Australia; avoiding boats & divers, 88-89, 93, 95-96; ?for parturition, 97-98.)
- x 1982 Barnett & Johns (DD; Queensland; response to boats & divers; 521, 523.)
- x 1982 Eberhardt, L.L. (TM; Florida; censusing at refugia; 3-4, 6-9, 15.)
- x 1982 Watterlond, M. (TM; Florida; use of power plants; pop. acc.; 94, 96.)
- x 1983 Kinnaird & Valade (TM; Florida; use of power plants; 1-24.)
- x 1983a Kinnaird, M.F. (TM; Florida; avoiding boats, 16, 34, 46, 49; use of warm-water outfalls, 16, 25, 40, 48.)
- x 1983c Kinnaird, M.F. (TM; Florida; avoiding boats; 7, 28, 34-35.)
- x 1983 Rathbun et al. (TM; Honduras; moving out to sea during storms; 306.)
- x 1983b Shane, S.H. (TM; Florida; use of power plants, 4-8; possible sheltering from boats & wind, 8.)
- x 1984 Marsh, Heinsohn & Marsh (DD; calving in shallow water; 780.)
- x 1984 Powell & Rathbun (TM; northwestern Florida; use of warm-water refugia; 10-13, 22.)
- x 1984 Shane, S.H. (TM; Florida; use of power plants; 180-187.)
- x 1985 Bengtson & Fitzgerald (TM; Florida; ?alarm vocalizations; 817.)
- x 1985 O'Shea, Rathbun et al. (TM; Florida; escaping from nets; 337.)
- x *1985 Packard, Frohlich et al. (TM; Ft. Myers, Florida; use of power plant; 1-20.)
- x 1985 Reynolds & Wilcox (TML; Florida; use of power plants, 1982-83; 413-422.)
- x 1986 Bayliss, P. (DD; Australia; higher densities in sheltered waters; 33.)
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- 1988 Weigle et al. (TML; Florida; use of power plants)
- x 1989a Marsh, H. (DD; Australia; spinning & rolling when stranded; 79.)
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- *1990 Buckingham, C.A. (TML; Crystal R., Florida; response to disturbance)
- x 1990 Marsh & Rathbun (DD; Queensland; learned

- wariness of power boats; 91, 95, 98.)
- x 1990 Rathbun et al. (TMM; northwestern Florida; use of springs; 4–33.)
- x 1991 Reid et al. (TML; Florida; movements among warm-water refugia; 180–190.)
- D *Behemotops* Domning, Ray, and McKenna, 1986
- Dv 1984c Inuzuka, N.
- xD *1986 Domning et al. (n.gen.; 6.)
- D 1987 Inuzuka, N. (Hokkaido, Japan)
- xD 1988 Saito et al. (Late Olig., Hokkaido, Japan; 269–273.)
- D 1989a Inuzuka, N. (Hokkaido)
- xD 1991 Kumar, K. (comp. w/anthracobunids; m236.)
- D *Behemotops emlongi* Domning, Ray, and McKenna, 1986
- xD *1986 Domning et al. (n.gen.n.sp.; comp. w/*B. proteus*, 6, 16–19, 23–33, 36, 45; paleoecology, 48.)
- xD 1988 Saito et al. (m269–270, 272.)
- xD 1991 Clark, J.M. (comp. w/*Paleoparadoxia weltoni*; 490–493, 498, 502–504.)
- xD 1992 Thewissen & Domning (m495.)
- D *1994 Ray et al. (syn. of *B. proteus*.)
- D *Behemotops proteus* Domning, Ray, and McKenna, 1986
- xD *1986 Domning et al. (n.gen.n.sp.; comp. w/*B. emlongi*; 6–23, 27, 29, 31, 33, 36, 45–46.)
- xD 1988 Saito et al. (m269–270, 272.)
- xD 1989a Domning, D.P. (distr. & feeding on kelp; 53.)
- xD 1991 Clark, J.M. (comp. w/*Paleoparadoxia weltoni*; 490–493, 500, 502–504.)
- xD 1992 Thewissen & Domning (m495.)
- *1994 Ray et al. (new specimen; Olig., Washington)
- D Behemotopsidae Inuzuka, 1987 (family)
- D *1987 Inuzuka, N. (n.fam.)
- Belgium
- 1868 Du Bus, B.-A.-L. (*Halitherium*)
- 1871 Van Beneden, P.J.
- x *1886b Hartlaub, C. (*Manatherium delheidi*, n.gen.n.sp.; Olig.; 369–370.)
- x *1889b Dollo, L. (*Miosiren kocki*, n.gen.n.sp.; Mioc.; 415–416.)
- x 1889 Lefèvre, T. (Olig. sir. fauna; 197–200.)
- x 1925 Abel, O. (*Halitherium Uytterhoeveni*, n.sp. [nomen nudum]; Olig.; 39.)
- *1934b Sickenberg, O.
- x 1957 Kellogg & Whitmore (*Miosiren*; Mioc.; ecology; 1021.)
- Belize (formerly British Honduras) (SEE ALSO: Central America)
- x 1825a Harlan, R. (TMM; 278.)
- x 1861 Möbius, K. (TMM; rostral pads; 148.)
- x 1863 McBain, J. (TMM; skull; 261.)
- x 1911 Gann, T.W.F. (TMM; at archaeological site; 78, 82.)
- 1918 Gann, T.W.F.
- 1931 Mitchell-Hedges, F.W. (TM)
- x 1935 Murie, A. (TMM; 30.)
- 1951 Taylor, D.M.
- 1966 Craig, A.K.
- x 1968 Charnock-Wilson, J. (TMM; 293–294, pls. 13–14.)
- x 1969 Allsopp, W.H.L. (TMM; natural clearance of weeds; 348.)
- x 1970 Charnock-Wilson, J. (TMM; 236.)
- 1972 Dieckman, L.E.
- x 1973 Bertram & Bertram (TM; status; 319.)
- 1974 Charnock-Wilson et al. (TMM)
- x 1975 Kirkpatrick & Cartwright (TMM; m139.)
- 1976 Anon.
- 1977 Balderamos, L.P.
- 1977 Frost, M.D. (TMM)
- x 1979 Bengtson & Magor (TMM; aerial survey; 230–232.)
- 1980 Scott, K.W.
- 1984 McKillop, H.I.
- 1986 McCarthy, T.J.
- 1987 Bertram, G.C.L. (TMM)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 580–581, 606.)
- x *1991 O'Shea & Salisbury (TMM; status & distr.; 156–164.)
- 1992 Boardman, B. (TMM; Gales Point)
- Bering Sea (SEE ALSO: Alaska; Asia; *Hydrodamalis* and synonyms; Pacific Ocean)
- *1751 Steller, G.W. (HG; Bering Is.; anatomy & natural history)
- x 1774 Steller, G.W. (occurrence of "*Manati*") [= HG; 97.)
- x *1802 Sauer, M. (HG; once common in Kamchatka and Aleutians; exterminated in 1768; 181.)
- x 1863a Brandt, J.F. (HG; distr. & extermination; 558–564.)
- x 1866a Brandt, J.F. (HG; extermination; 279–282.)
- x 1867a Brandt, J.F. (HG; extermination; 445–452.)
- 1881 Elliott, H.W.
- x *1881 Nordenskiöld, A.E. (HG; Bering Is.; post-1768 reports, etc.; 272–280, 292.)
- x *1883 Stejneger, L. (HG; Bering Is.; collection of specimens, 59, 61–62; extermination, 83–84; distr., 84.)
- x *1884 Stejneger, L. (HG; Bering Is.; date of extermination; 181–189.)
- x *1885b Nordenskiöld, A.E. (HG; Bering Is.; post-1768

reports defended; 280–284.)

- x 1885 Stejneger, L. (HG; Bering Is.; skeleton; 256–257.)
- x 1885a Woodward, H. (HG; Commander Islands & ?Alaska; skeletons found in peat; 457–458.)
- x *1886 Stejneger, L. (HG; Bering Is.; date of extermination; 317–328.)
- x *1887 Stejneger, L. (HG; Bering Is.; statistics on extermination; 1047–1054.)
- x 1891 Lucas, F.A. (HG; extermination, collection of bones; 623–627.)
- x 1894 Dawson, G.M. (HG; history of discovery; 154–160.)
- x *1899 Steller, G.W. (HG; Bering Is., anatomy & natural history, 181–201; dead animals found on Kamchatka coast, 200.)
- x *1925 Steller, G.W. (HG; Bering Is., hunting, anatomy, & natural history, 139–140, 161, 180, 182, 226–237, 245; dead animals found on Kamchatka coast, 236–237.)
- x 1930 Sverdrup, H.U. (HG; Cape Chaplin, ca. 1910; 248.)
- x 1937 Murie, O.J. (HG; Eskimo tradition of presence at St. Lawrence Is.; 345.)
- 1944 Andreyev, A.I.
- x 1946 Goodwin, G.G. (HG; Bering Is.; 56–61.)
- 1948 Masterson & Brower
- x 1952 Andreyev, A.I. (HG; Commander Islands; hunted, 1758–59; 19.)
- x *1958 Grekov, V.I. (HG; distr.; 95–100.)
- x 1964b Bertram & Bertram (HG; possible survival; 313.)
- x 1965 Heptner, V.G. (HG; distr.; 91–93.)
- 1967 Hopkins, D.M.
- 1967 Laughlin, D.M.
- 1967 Scheffer, V.B.
- x 1969 Chelnokov, F.G. (HG; Bering Is.; bones collected; 71–73.)
- x 1977 Whitmore & Gard (HG; Aleutian & Commander Islands; 1–8, 18.)
- x *1978b Domning, D.P. (HG; age of Bering Is. material, 105–106; review of reports from Bering Sea area, 135–139; hunting, 132–135, 163–165.)
- x 1983 Rich, V. (HG; Bering Is.; skeleton discovered; 415.)
- x 1985 Laughlin, W.S. (HG; significance for Beringian anthropology; 781.)
- x *1993 Savinetsky, A.B. (HG; Bering Is.; radiocarbon dates; 403–405.)

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- x 1860 Nordmann, A.v. (*Manatus maeoticus*; Mioc.; 328–330.)
- x 1861 Nordmann, A.v. (*Manatus maeoticus*; Mioc.; 581–582, pl. 11.)
- x *1942 Macarovici & Oescu (*Manatus maeoticus*; Mioc.; 351, 353, 378–379.)

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- xD 1950 Freund, L. (409 items; 161–181.)
- x 1973 Crusafont-Pairó, M. (fossil sirs., Spain & Mallorca, 96–98; existence of bibliography by L. Via, ii.)
- xD 1975 Edinger, T. (bibliography of paleoneurology; 1–258.)
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- x 1904 Liverseege, J.F. (DD; analysis of oil; 211–214.)
- x 1941 Scholander & Irving (TML; respiratory gas exchange; 175, 179–183, 185–191.)
- x 1957 Gohar, H.A.F. (DD; chemical & physical characteristics of fat; 12.)
- x 1967 Tsuyuki & Itoh (DD; fatty acids; 1035–1037.)
- x 1968 Lemire, M. (*Trichechus*; digestion; 500–504.)
- x 1969 Caldwell et al. (DD; bladder bile; 437–441.)
- x 1969 Strauss, M.B. (*Trichechus*; lactic acid; m10.)
- x 1972 Blessing, M. (*Trichechus*; myoglobin; 475–479.)
- x 1972 Kenchington, R.A. (DD; pH of foregut contents; 887.)
- x 1973 Lewis & Wilson (*Trichechus*; clumping of staphylococci by fibrinogen; 421–422.)
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- x 1976 Allen et al. (DD; hematology & blood chemistry; 47.)
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- x 1977 Marsh et al. (DD; stomach mucosa & secretions; 278–281, 284–292.)
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- x 1978 Marsh et al. (DD; fat composition; 163.)
- x 1978 McCabe et al. (DD; hemoglobin; 19–22.)
- x 1979a Farmer et al. (TI; hemoglobin & whole blood; 231–238.)
- x 1979 Hilmy et al. (DD; hematology; 197–203.)
- x 1980 De Jong & Zweers (TI; eye-lens proteins & phylogeny; 897–902.)
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- x 1980 Irvine et al. (TM; blood & urine values; 3–6.)
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- x 1982 Medway, Bruss et al. (TM; blood chemistry; 229-234.)
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- x 1982 Reynolds & Krause (TM; duodenal secretions; 35-39.)
- x 1983 Marsh & Anderson (DD; capture myopathy; 1-3.)
- x 1983 Piggins et al. (TI; visual pigment; 116, 118-119, 123.)
- x 1985 O'Shea, Rathbun et al. (TML; blood chemistry; no evidence of capture myopathy; 339-345.)
- x 1986 Burn, D.M. (TM; digestion & digestive efficiency; 139-142.)
- 1986 Kleinschmidt et al. (hemoglobin sequences)
- x 1986 Lew et al. (TML; soluble class I molecule absent; 279-280.)
- x 1986 Miyamoto & Goodman (protein sequences & phylogeny; 230-240.)
- 1986 Rodionov, V.A. (TM; lipids in muscles)
- x 1986 Shoshani et al. (TM & proboscideans; immunology; 431-436.)
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- x 1991 Schweigert et al. (TM; vitamin A, α -tocopherol, & lipid levels in plasma; 35-37, 41.)
- 1992 Colares et al. (TI; blood chemistry)
- x 1992 McKenna, M.C. (*Trichechus*; eye-lens proteins; 350, 354-355, 357.)
- Birth and Breeding (SEE ALSO: Behavior, Sexual; Population Biology; Urogenital System)
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- x 1763 Bellin, S. (TM; Guianas; 2 calves said to be born at a time, of opposite sexes & each about 30 lbs. in weight; 66.)
- x 1834 Ruppell, E. (DD; Red Sea; calves born in November & December; 113.)
- x 1869 Marcoy, P. (*Trichechus*; South America; 2: 152.)
- x 1875 Marcoy, P. (*Trichechus*; South America; 2: 190.)
- x 1884b True, F.W. (*Trichechus*; Americas; 118.)
- x *1899 Steller, G.W. (HG; 198.)
- x 1906 Annandale, N. (DD; India; with young; 243.)
- x 1917 Fairchild, D. (*Trichechus*; 341.)
- x 1923 Petit, G. (DD; Madagascar; 77-78.)
- x 1924-1925 Vosseler, J. (TI; in capt.; ?menstruation, 177; ?lack of seasonality, locating of mates, 179-180.)
- 1927 Jennison, G.
- x 1929 Prater, S.H. (DD; Andaman Islands; ?breeding season; 987.)
- x 1935 Barrett, O.W. (TM; Central America; 217.)
- x *1937 Barbour, T. (TM; Florida; conceived & born in capt.; 106-107.)
- x 1939 Beal, W.P.B. (TS; 125.)
- x 1940 Machado, F. de P. (TI; breeding season December-February; 246.)
- x 1941 Hamilton, W.J., Jr. (TM; Florida; ?seasonal breeding; 691.)
- x 1941-1943 Pereira, M.N. (TI; Brazil; calving season December-February; 102, 218.)
- x *1944 Pereira, M.N. (TI; breeding more in winter but with no clear season; behavior; pregnancy; 58-61.)
- x 1948 Bessac & Villiers (TS; gestation "12 months"; 188.)
- x 1951b Moore, J.C. (TM; births in capt., 26-27; in wild, 27-28.)
- x 1953 Moore, J.C. (TM; Florida; calves not reported in December; 121-122.)
- x *1955 MacMillan, L. (DD; Australia; 18.)
- x 1956 Moore, J.C. (TM; Florida; 15-16, 23.)
- x *1957 Moore, J.C. (TM; Florida; in capt.; 137-138.)
- x *1960 Norris, C.E. (DD; Sri Lanka; 296-297, 299.)
- 1963 Anon.
- 1963 Bertram, G.C.L. (TM; Guyana)
- x 1964a Bertram & Bertram (TM; Guyana; 119.)
- x 1966 Jarman, P.J. (DD; Kenya; 83.)
- x 1966 Thomas, D. (DD; India; many 8-ft.-long females pregnant; 80.)
- x 1967 Fiuza Lima, F. (TI; detailed misinformation; 17-18.)
- x 1967 MacLaren, J.P. (TM; Panama; in capt.; m389, m392.)
- x 1968a Bertram & Bertram (*Trichechus*, DD; m390.)

- x 1968 Charnock-Wilson, J. (TM; Belize; 294.)
 1969 Harrison, R.J.
- x 1971 Hughes & Oxley-Oxland (DD; Mozambique; 301.)
- x *1972 Heinsohn, G.E. (DD; Queensland; seasonality of birth; size at maturity; 208-211.)
- x 1973 Bertram & Bertram (DD; Australia; some evidence of a breeding season; 333-335.)
- x 1973 Valentry, D. (*Trichechus*, DD; reluctance to breed in capt.; 291.)
 1974 Perry, J.S.
- x 1974 Sanger, C. (TM; Guyana; 2 births in capt.; 23.)
- x 1974 Vietmeyer, N.D. (TM; Guyana; in canal; m63.)
- x 1975b Anon. (TM; Miami, Florida; conceived & born in capt.; 6-7.)
- x 1975 Pinto da Silveira, E.K. (TMM, TI; 225-226.)
- x *1976 Allen et al. (DD; stillbirths; 39.)
 1976c Anon. (TM; Miami, Florida; in capt.)
 1976 Bourliere et al. (TS)
 1976 Clark, B.
- x 1976 Ilani, G. (pregnant DD; Gulf of Aqaba; 161.)
- x 1976 Ligon, S.H. (DD; Australia; no mating season, 580; birth ?primarily in low latitudes, 582.)
 1977a Dekker, D.
 1977b Dekker, D.
- x 1978 Anderson & Heinsohn (DD; Australia; breeding ?non-seasonal; 16, 20.)
- x 1978 Irvine & Campbell (TM; Florida; ?spring calving season; 616.)
- x 1978 Kasuya & Nishiwaki (DD; female thought to be mature at about 10 years; 303, 306-308.)
- x 1978 Marsh et al. (DD; review of reproductive biology; 163-164.)
- x 1978 Mitchell, J. (DD; size, age, & dentition at sexual maturity; 331-333, 340-343, 348.)
- x 1979 Anderson, P.K. (DD; calving in shallow, hypersaline areas; stranding & "sunburn" scars; 133.)
- x 1979 Hartman, D.S. (TM; Florida; size at sexual maturity, 16; birth, 110-111; birth rate & ages at weaning & maturity, 120-122, 137.)
- x 1980 Belitsky & Belitsky (TM; Dominican Republic; small calves seen in spring, summer, & autumn; 314, 318.)
- x 1980 Dekker, D. (TM; in capt; 21-26.)
- x 1980 Marsh, H. (DD; Australia; age & sexual maturity; 190-191, 198-199.)
- x 1981b Beusse et al. (TM; ?retained placenta & metritis; 120.)
- x 1981 Odell et al. (TM; organ weights & sexual maturity; 54-56, 61-63.)
- x 1981 Odell, D.K. (TM; Miami, Florida; in capt.; 131.)
- x 1981 Powell & Waldron (TM; Blue Spring, Florida; calving intervals; 48-49.)
- x 1981 Powell, J.A., Jr. (TM; Crystal R., Florida; calving intervals; 38-39.)
- x 1981b Reynolds, J.E., III (TML; Florida; aseasonality; 441-442.)
- x 1981 Santiapillai, C. (DD; Sri Lanka; mating during southwest monsoon; twinning; 4.)
 1981 Scheffer, V.B. (DD, *Trichechus*; size at birth)
- x 1981 Zeiller, W. (TM; Miami, Florida; in capt.; 109-110.)
- x 1982 Best & Teixeira (TM; Amapá, Brazil; mating observed in February, May, & June; 45.)
- x *1982a Best, R.C. (TI; seasonal breeding; 76-78.)
- x 1982 Kleinschmidt, A. (TM; in capt., Nuremberg, Germany; artificial insemination; 412.)
 1982 McNerney, B.B.
- x 1982 Milne & Milne (TML; pop. acc.; 154-158.)
- x 1982 Werzinger, J. (TM; in capt., Nuremberg, Germany; 34-35.)
 1983 Hennemann, W.W.
- x 1983a Kinnaird, M.F. (TM; northeastern Florida; areas ?used for birthing; 48.)
- x 1983 Marsh, H. (DD; Vanuatu; calving in lagoons; 2.)
 1984 Cardeilhac et al. (TM)
- x 1984 DiPerna, P. (TM; Florida; captive breeding; pop. acc.; 16-17.)
- x *1984 Marsh, Heinsohn & Channells (DD; female fertility; 743-766.)
- x *1984 Marsh, Heinsohn & Glover (DD; male fertility; 721-742.)
- x *1984 Marsh, Heinsohn & Marsh (DD; life history & population dynamics, 767-788; parturition, 773, 788.)
 *1984 Qi, J. (TM; in capt.)
- x 1984 Schmitz & Lavigne (TM; intrinsic rate of increase vs. body size & metabolic rate; 307-308.)
 1984 White et al.
- x 1984a White, J.R. (TM; birth in capt. & captive breeding; pop. acc.; 414-418.)
- x *1984b White, J.R. (TM; Florida; birth in capt. & captive breeding; pop. acc.; 369-375.)
- x 1985 Qiu Y.-X. (TM; Beijing; births in capt.; m35.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; seasonal breeding; 1008.)
- x 1986 Colmenero-R., L.C. (TMM; Mexico; seasonal breeding; 597-599.)
- x 1986a Marsh, H. (DD; Torres Strait; reproductive parameters; 64-69.)
- x 1986 Timm et al. (TI; Ecuador; ?calving season; 154.)
- x 1987 Wootton, J.T. (body mass & age at first reproduction; m748.)
- x 1988 Marsh, H. (DD; Australia; seasonality of reproduction; 15.)
 1988b Qiu Y.-X. (TM; in capt., Beijing)
- x 1989a Preen, A. (DD; Arabian region; seasonality & calving areas; 53-54, 119.)

- x 1990 Rathbun et al. (TML; Weekiwachee R., Florida, 21; Cross Florida Barge Canal, 30.)
- x 1991 Domning & de Buffrénil (effect of pregnancy on hydrostasis; 359.)
- x 1991 Haigh, M.D. (TMM; Guyana; in capt.; m342.)
- x 1992 Marmontel et al. (TM, TI; 300-309.)
- Boats (as threats to sirenians): SEE Accidental Mortality
- Brain and Nervous System (SEE ALSO: Sense Organs)
- x 1820b Home, E. (DD; olfactory nerve; 321.)
- x *1851 Barkow, H.C.L. (DD; nerves & muscle innervations; 119-122.)
- 1864 Brandt, J.F.
- 1867 Brandt, A.
- x 1867c Brandt, J.F. (brains of 3 Recent genera compared; 269-270.)
- x *1872a Murie, J. (TMM; nerves, 137, 141, 182-186; brain, 180-183.)
- x *1875 Chapman, H.C. (TM; 453-456, pl. 26.)
- x 1875a Owen, R. (*Eotherium*, *Trichechus*, & other sirs.; cranial endocasts; 100-105, pl. 3.)
- x *1880 Murie, J. (TMM; nerves, 35-39, 41-44, pl. 8; brain, 39-42, pl. 9.)
- x 1884 De Vis, C.W. (*Chronozoon* & sirs.; cranial endocasts; 392-395.)
- x 1885a Woodward, H. (HG; cranial endocast; 460-461.)
- 1886 Flot, L.
- x 1886 Miklouho-Maclay, N. de (DD; brain; 193-196, pl. 24.)
- 1887 Studer, T. (*Halianassa*; cranial endocast)
- x *1897 Beddard, F.E. (TI, TM; 52-53.)
- 1902 Smith, G.E.
- x 1903a Smith, G.E. (brain lobes; 326, 328.)
- 1905 Wilder, B.G.
- x *1906b Dexler & Freund (*Trichechus*, DD; olfactory nerve, 59-60; reflexes, 60-61, 63; touch, 64-65; central nervous system, 66.)
- *1911 Dexler & Eger
- x *1912b Dexler, H. (DD; brain; 97-190, pls. 5-6.)
- 1917 Larger, R.
- x 1925 Kellogg, R. (*Metaxytherium jordani*; cranial endocast; 64-65, pl. 9.)
- 1928 Weygandt, W. (HG)
- x 1931 Sickenberg, O. (DD; neoteny; 430-431.)
- 1933b Edinger, T.
- x 1934 Addison, W.H.F. (*Trichechus*; brain cells; 587, 590.)
- 1934 Genschow, J.
- 1934 Jelgersma, G. (TM; brain)
- 1939 Edinger, T.
- 1942 Edinger, T.
- 1947 Davidenkov, S.
- 1950 Edinger, T.
- x 1951 Reinhart, R.H. (*Halianassa jordani*, *Trichechus*, & other sirs.; cranial endocasts; 210.)
- x 1953 Quiring & Harlan (TM; brain; 194, 200.)
- x 1954a Friant, M. (sir. brain characteristics; 1005-1006.)
- x *1954b Friant, M. (TI & other sirs.; brains; 129-135.)
- D 1956 Edinger, T.
- 1957-
- 1958 Friant, M.
- 1958 Exner & Routil
- 1960 Edinger, T.
- x 1960 Kappers et al. (*Trichechus*, DD; epiphysis & spinal cord; 1: 286, 2: 1064.)
- 1961 Krabbe, K.H. (*Trichechus*; pineal body)
- D 1963 Edinger, T.
- 1965 Hanström, B. (*Trichechus*; hypophysis)
- x 1969 Robineau, D. (vestibular & auditory nerves, 8; facial nerve, 13-14.)
- x 1972 Blessing et al. (*Trichechus*; nerves in spleen; m187.)
- x 1972 Verhaart, W.J.C. (TM; brain; 271-292.)
- x 1973 Spillmann, F. (*Halitherium pergensense*; cranial endocast; 198-199, pl. 39.)
- 1974 Schober & Brauer
- x D *1975 Edinger, T. (*Desmostylus*; cranial endocast; 50.)
- x 1976 Allen et al. (DD; brain weights; 42, 46.)
- x 1980 Bullock et al. (TI; auditory evoked potentials; 130-133.)
- x 1980 Lowell & Flanigan (olfactory system; m56.)
- 1982 Armstrong, E.
- x 1982 Bullock et al. (TM; auditory evoked potentials; 547-554.)
- 1982 Sokolov & Mukhametov (TM; sleep)
- x 1983 Buergelt & Bonde (TM; toxoplasmic meningoencephalitis; 1294-1296.)
- D 1985 Kamiya et al. (DD, *Paleoparadoxia*; brain)
- x 1985 Mackay-Sim et al. (TM; rudimentary olfactory bulb present; m187-190.)
- x 1985 Pirlot & Kamiya (DD; brain; 147-155.)
- x 1985 Ralph et al. (TM; pineal body absent; 55-60.)
- x 1985 Thewissen, J.G.M. (sirs. & other ungulates; brain; 265.)
- 1986 Worthy & Hickie
- x 1988 Fischer, M.S. (TM; nerves of ear region; 368-376.)
- *1988d Pilleri, G.
- *1989 Reep et al. (TML; cerebral cortex)
- x 1990 O'Shea & Reep (encephalization quotients & life history; 534-543.)
- *1990 Reep & O'Shea (TM)
- x 1991 Loerzel & Reep (TML; Rindenske in cerebral cortex; 166-171.)
- x 1992 Ketten et al. (TML; chorda tympani & facial nerve; 84.)
- 1992 Mukhametov et al. (TI; sleep)

- Brazil
- 1526 SEE Castro, E. de, 1929.
- 1541 SEE Carvajal, G. de, 1934.
- 1560 SEE Anchieta, J. de, 1799.
- 1576 Gândavo, P. de M. de
- 1578 Léry, J. de
- 1580 SEE Soares, F., 1904.
- 1587 SEE Sousa, G.S. de, 1879.
- 1614 Abbeville, C. d'
- 1624 SEE C. de Lisboa in Walter, J., 1967.
- 1625 Cardim, F.
- 1627 SEE Salvador, V. do, 1931?.
- 1648 SEE Piso, W., 1948.
- 1658 SEE Vieira, A., 1735.
- 1662 SEE Heriarte, M. de, 1874.
- x *1735 Vieira, A. (*Trichechus*; >20 shiploads of meat per year exported from Amazonia, ca. 1658; 26.)
- 1762 Queirós, J. de S.J. (TI)
- 1768 SEE Noronha, J.M. de, 1856.
- 1786 SEE Rodriguez Ferreira, A., 1903.
- x 1790 Andrada e Silva, J.B. de (*Trichechus*; exports from Amazonia, 17th century; 389.)
- 1799 Anchieta, J. de
- 1820 Daniel, J.
- 1820 Wied-Neuwied, M. zu
- x 1826 Wied-Neuwied, M. zu (TMM; southern Brazil; 601-604.)
- x 1829 Maw, H.L. (TI; Tabitinga, on Brazil/Peru border; 237-239.)
- x 1831 Spix & Martius (*Trichechus*; 1122-1123.)
- x 1839 Diesing, C.M. (TI; nematode *Heterocheilus*; 230.)
- x 1847 Edwards, W.H. (TI; Amazon R.; 187-188.)
- x 1848 Schomburgk, R. (?TI; Rio Branco; distr. & in capt.; 786.)
- x 1850 Cornalia, E. (TI; Manacapuru; 303, 311.)
- x 1850 Sampaio, F.X.R. de (TI; Rio Branco; m259.)
- x 1851 Warren, J.E. (?TI; Amazonia; 149.)
- x 1853 Herndon, W.L. (TI; econ. use; 300, 319, 365.)
- x 1853 Wallace, A.R. (TI; Amazon R.; 185-187, 458-461.)
- 1854 Burmeister, H. (TMM)
- x 1854 Gibbon, L. (TI; Madeira R.; "few" taken; m309.)
- 1856 Noronha, J.M. de (TI; Nhamundá R.)
- 1861 Belmar, A. de
- x 1863 Bates, H.W. (TI; Amazon R.; 2: 165.)
- 1868 Agassiz, L.
- x 1871 Cunningham, R.C. (?TI; in capt., Rio de Janeiro; 798.)
- x 1872 Kingston, W.H.G. (TI; predation by jaguar; 184-190.)
- 1873 Souza, F.B. de
- x 1874 Estacio da Silveira, S. (TMM; Maranhão; econ. use; 26-27.)
- x 1874 Heriarte, M. de (?TI; Gurupá, 29-30; Trombetas R., 39.)
- x 1874 Keller-Leuzinger, F. (TI; Amazonia; 81, 83.)
- 1875 Barbosa Rodriguez, J.
- x 1878 Brown & Lidstone (TI; Jamaragua, 175-176; in capt., Manaus, 395-396.)
- 1879 Sousa, G.S. de
- x *1883 Pelzeln, A.v. (*Manatus inunguis*, n.sp.; Madeira R.; distr. comp. w/ TM; 88-95.)
- 1885 Hartt, C.
- x 1885 Santa-Anna Nery, F.J. de (TI; econ. use; 67-68, 71, 168.)
- x 1891 Costa e Silva, B. da (TI; 93-95.)
- x 1892 Barbosa Rodriguez, J. (?*Manatus Guetardi*; rib fragments; 53-54.)
- x 1893 Goeldi, E.A. (TMM, TI; 119-120.)
- x *1895 Veríssimo, J. (TI, TMM; Brazil; hunting & econ. use; 35-40, 92-93, 96, 99-102, 117, 119.)
- x 1900 Anchieta, J. de (TI; gen. acc.; 11-12.)
- x *1903 Rodriguez Ferreira, A. (*Trichechus*; Pará; 169-174.)
- x 1904 Goeldi & Hagmann (TI; 89.)
- 1904 Ihering, H.v. (TI; Juruá R.)
- 1904 Soares, F.
- x 1907a Anon. (TI; Juruá R.; 98.)
- x 1914 Woodroffe, J.F. (TI; 243-244.)
- 1922 Le Cointe, P.
- x 1925 Bittencourt, A. (TI; Amazonas; exploitation; 134-136.)
- 1925 Cardim, F.
- x 1925 Fernandes, A. de A. (TI; hunting; 263-267.)
- x 1926 MacCreagh, G. (TI; Uaupés R.; 277, 311, 323-324.)
- x 1926 Schurz, W.L. (TI; Rio Purús; 2 photos of carcasses; 449-450.)
- x 1929 Castro, E. de (?TMM; Pernambuco, ca. 1526; 160.)
- x 1931 Moraes, R. (mixira; 67.)
- 1931? Salvador, V. do
- 1933 Anchieta, J. de
- x 1933 Jobim, A. (TI; hunting; 136, 140-144.)
- x 1933 Rusby, H.H. (TI; Madeira R.; 324-325.)
- x 1934 Bittencourt, A. (TI; hunting; 24-25.)
- *1934 Carvajal, G. de (TI [earliest account; 1541-42]; Amazon R.)
- x 1937 Orico, O. (TI; Amazonia; legends; 190-191.)
- x 1937 Pinheiro, A. (TI; hunting; 215-218.)
- x 1939 Coates, C.W. (TI; Tapajós R.; 142.)
- 1939 Couto de Magalhães, A.
- x 1939a Moraes, R. (TI; Gurupá, Marajó, Tocantins R.; 91-92.)
- 1940 Ihering, R.v.
- x 1940 Machado, F. de P. (TI; econ. use, conservation; 246.)

- x 1941-
1943 Pereira, M.N. (TI; econ. use; 100-102, 153-154, 218, 65.)
- x 1943 Jobim, J. (TI; use for tinted hides; 178.)
- x 1944 Morais Rêgo, A.R. de (TI; natural history, econ. use; 10-12.)
- x *1944 Pereira, M.N. (TI; natural history; 21-94.)
- x 1945 Paiva, M. (*Trichechus*; pop. acc.; 35-36.)
- x 1945 Santos, E. (TI; hunting, econ. use; 155-159.)
- 1947 Mello-Leitão, C.F. de
- x 1948 Mendes, A. (TI; econ. use; 325-327.)
- 1948 Piso, W.
- x 1949 Vieira, C.O.C. (TI; Juruá R.; 241, 268-269.)
- x 1952 Nimuendajú, C. (TI; Amazon R.; "rarely caught" by Tukuna Indians; m26.)
- x 1954 Aragão, A. de (TI; hunting; 54-56.)
- 1955 Vieira, C.O. da C. (TI, TMM)
- x 1956 Paula Couto, C. de (*Trichechus*; ?Pleist., Acre; 5, 79, 95, 107.)
- x 1956 Pereira, M.N. (*Trichechus*; Marajó; 68.)
- 1958 Cruis, G.
- 1965 Gândavo, P. de M. de
- x 1965 Ruschi, A. (TMM; Espírito Santo; 30.)
- x 1966 Bittencourt, A. (TI; pop. acc.; 35-36.)
- x 1967 Carvalho, J.C. de M. (TI; exploitation; 25-27, 31, 33.)
- x 1967 Feriz, H. (clay model of manatee head; western Brazil; 373-374.)
- x 1967 Fiuza Lima, F. (TI; captive breeding proposed; 17-18.)
- x 1967a Paula Couto, C. de (?Mioc. & ?Pleist. sirs.; 16, 22, 26.)
- x *1967b Paula Couto, C. de (*Sirenotherium pirabensis*, n.sp.; Early Mioc., Pará; 345-347, 354-356.)
- x 1967 Pereira, M.N. (TI; Rio Branco, 23; Tucuna Indian legend, 467.)
- x 1967 Salles, W.B. de (TI; pop. acc.; 124-127.)
- *1967 Walter, J. (TMM; Maranhão; 17th century record by C. de Lisboa)
- x 1969 Carvalho & Toccheton (TI; Pará; 224.)
- 1970 Pinto, C.G.C.
- 1971 Anon.
- x 1971a Banks da Rocha, N. (TMM; Pernambuco; 101-103.)
- x 1971b Banks da Rocha, N. (TMM, TML [!]; 133.)
- x 1971 Lima, D.C. (TI; Itacoatiara, Amazonas; meat exported, 1968; 7.)
- x 1972 Coimbra-Filho, A.F. (*Trichechus*; status; 82-87.)
- x 1973 Pine, R.H. (TI; Belém, Pará; 74.)
- x 1974 Hawrylyshyn, G. (TI; Tefé, Amazonas; 20.)
- 1974 Paula Couto, C. de (?Pleist., Acre)
- x 1975 Pinto da Silveira, E.K. (TMM, TI; in capt.; 223-226.)
- 1976 Reinhart, R.H. (*Trichechus* sp.; ?Pleist., Juruá R.; 280-281.)
- x 1977c Domning, D.P. (TI; Manaus; in capt.; sold as pets to private owners; 3.)
- x 1977 Meggers, B.J. (TI; raising for meat proposed; 49.)
- x *1977 Whitehead, P.J.P. (early accounts & former southern distr. of manatees; 165-189.)
- x *1978 Whitehead, P.J.P. (early accounts & former southern distr. of TM; 497-506.)
- x 1979 Best & da Silva (TI; pop. acc.; 26-27, 29.)
- x 1979 Cascudo, L. da C. (folk beliefs; pop. acc.; 28.)
- x 1979 Farmer et al. (TI; lower Madeira R.; 231.)
- x 1979 Mok & Best (TI; in capt. & at Tefé, Amazonas; skin fungus; 79-82.)
- x 1980 Ayres & Best (TI; conservation; 83-85, 90-92.)
- x 1980 Banks da Rocha, N. (key to manatee species in Brazil; 147-148.)
- x *1981a Domning, D.P. (TMM, TI; distr. near mouth of Amazon R.; 85-97.)
- x 1981b Domning, D.P. (TI; research; pop. acc.; 18-23.)
- x 1981 Montgomery et al. (TI; radiotracking & habitat use; 81-85.)
- x 1981 Simpson & Paula Couto (*Trichechus*; Pleist., Acre; 48-49, 69.)
- x 1981a Smith, N.J.H. (TI, TMM; econ. use; 184-186.)
- x 1981b Smith, N.J.H. (TI; Itacoatiara, Amazonas; 95-96.)
- x 1982a Anon. (TMM; Paraíba; 3.)
- x 1982 Best & Teixeira (TMM; Amapá; 41-47.)
- x 1982a Best, R.C. (TI; seasonal breeding; 76-78.)
- x *1982a Domning, D.P. (TI, TMM; commercial exploitation, ca. 1785-1973; 101-126.)
- x 1982b Domning, D.P. (*Trichechus*; Pleist., Acre; 603-604.)
- x 1983 Best, R.C. (TI; dry-season fasting; 61-64.)
- x 1983 Lainson et al. (TI; protozoan *Eimeria trichechi*; 287-289.)
- x 1984 Best, R.C. (TI; pop. acc.; 66-73.)
- 1986a Anon. (TI, TMM; protective legislation)
- x 1986 Frailey, C.D. (?*Ribodon*; ?Late Mioc., Acre R.; 34.)
- x 1986 McLaren et al. (TI; 2 specimens in Carnegie Museum; 293.)
- x 1987 Colares & Colares (Amazonia; seasonal variation in food-plant abundance; 42-44.)
- 1989c Anon. (TMM; research project)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 588-589, 609.)
- x 1989 Toledo, P.M. de (*Sirenotherium pirabense*; Mioc., Pará; 5-10.)
- x 1990 Colares et al. (TI; in capt., Manaus; 43-47.)
- x 1991b Anon. (TMM, TI; conservation; 221.)
- x *1991 Toledo & Domning (*Dioplotherium cf. allisoni*, cf.

- Rytiodus*, cf. *Metaxytherium*; Early Mioc., Pará; 119–146.)
- x *1992 Borobia & Lodi (TMM; northeastern coast; distribution & conservation; 37–43.)
- 1992 Grubel da Silva, Paludo et al. (TMM; Paraíba)
- 1992 Grubel da Silva, Soavinski et al. (TMM; in capt.)
- 1992a Pinto de Lima et al. (TMM; Northeast; distr. & status)
- 1992b Pinto de Lima et al. (TMM; Northeast; conservation)
- n.d. Brandão, A.F.
- Britain
- 1784 Pennant, T. (manatee)
- x *1801 Stewart, C. ("*Trichechus manatus borealis*"; stranded near Leith; 85.)
- x *1817 Stewart, C. ("*Trichechus manatus borealis*"; stranded near Leith, 1785; 125.)
- x 1828 Fleming, J. ("*Manatus borealis*"; Leith; 29.)
- x 1829 Anon. (manatee-like animal; Shetland Islands; 57–60.)
- x 1837 Bell, T. ("*Manatus borealis*"; strandings; 525.)
- x 1857 Baikie, B. (?manatees; Orkney; 29.)
- 1864 Gray, J.E. (manatees)
- x *1874 Flower, W.H. (*Halitherium canhami*, n.sp.; Suffolk; 1–7, pl. 1.)
- 1973b Anon.
- British Guiana: SEE Guyana
- British Honduras: SEE Belize
- California
- xD v1877 Yates, L.G. (*Desmostylus*; Alameda Co.; first published description; 77–79.)
- xD *1888 Marsh, O.C. (*Desmostylus hesperus*, n.gen.n.sp.; Alameda Co.; 94–96.)
- xD 1902a Osborn, H.F. (finds of *Desmostylus*; 713–714.)
- xD 1906 Merriam, J.C. (*Desmostylus*; Mioc.; 151–152.)
- D 1911 Anderson, F.M.
- xD *1911 Merriam, J.C. (*Desmostylus*; 404–406.)
- xD 1922 Hannibal, H. (*Desmostylus*; Mioc.; 238–240, pl. 12.)
- xD 1925 Hanna, G.D. (*Desmostylus*; Sharktooth Hill, Kern Co.; m72.)
- x *1925 Kellogg, R. (*Metaxytherium jordani*, n.sp.; Mioc., Santa Barbara Co.; 59–60.)
- xD 1926 Anon. (*Desmostylus*; Sharktooth Hill, Kern Co.; 12.)
- xD 1930 Hanna, G.D. (*Desmostylus*; Sharktooth Hill, Kern Co.; m70.)
- xD 1933 Hanna, G.D. (*Desmostylus*; Monterey Bay; 291.)
- D *1937 VanderHoof, V.L. (*Desmostylus*)
- xD 1940 Camp, C.L. (Marsh's acquisition of type tooth of *Desmostylus*; 645.)
- x 1941a VanderHoof, V.L. (*Metaxytherium* cf. *petersi*; Mioc., Santa Cruz Co.; 1984–1985.)
- xD 1949b Anon. (indeterminate desmostylian; near Coalinga; 313.)
- xD 1953 Langston, W., Jr. (supposed *Desmostylus* [actually a cetacean]; San Pablo Reservoir; 8.)
- xD 1963 Camp, C.L. (*Desmostylus*; discovery & type locality; 387–389.)
- xD *1963 Mitchell & Repenning (sirs. & desmostylians; chronologic & geographic range; 3–16.)
- xD 1963 Mitchell, E.D., Jr. (*Paleoparadoxia*; San Clemente Is.; 192–193, 198–199.)
- xD 1964 Mitchell & Lipps (*Paleoparadoxia*; San Clemente Is.; 214–215.)
- xD 1965a Anon. (*Paleoparadoxia*; Stanford Linear Accelerator Center, Santa Clara Co.; pop. acc.; 49, 53.)
- x 1965 Long, A. (HG; Pleist., Monterey Bay; carbon-14 date; 254.)
- xD 1965 Mitchell & Lipps (*Paleoparadoxia*; San Clemente Is.; 4–6.)
- xD *1965 Mitchell, E.D., Jr. (*Desmostylus*; Sharktooth Hill, Kern Co.; iii, 3, 7, 21, 26–29, 36.)
- D 1967 Addicott, W.O.
- x *1967 Jones, R.E. (HG; Pleist., Monterey Bay; 143.)
- x 1969 Rensberger, J.M. (indeterminate sir.; Mioc., Alameda Co.; 1–2.)
- xD 1970 Zuidema, H.P. (*Paleoparadoxia*; pop. acc.; 20–22.)
- xD 1972 Barnes, L.G. (sirs. & desmostylians in Mioc. stratigraphy; 126, 140–142.)
- xD 1972a Domning, D.P. (sirs. & desmostylians in Mioc. stratigraphy; 146–149.)
- x 1974 Addicott & Greene (HG; Monterey Bay; zoogeographic significance; 251–252.)
- xD 1976 Phillips et al. (*Desmostylus*, *Paleoparadoxia*; Point Arena, Mendocino Co.; 137, 152.)
- xD *1978b Domning, D.P. (sirs. & desmostylians; Mioc.-Plioc.; 101–110, 140, 143, 147, 149–162.)
- D 1978 Squires & Fritsche
- xD 1978 Susuki & Stadum (?*Paleoparadoxia tabatai*; San Clemente Is.; 5, 21.)
- 1979 Clark et al.
- x 1981 Barnes et al. (*Hydrodamalis cuestae*; Oceanside, San Diego Co.; 56–57, 62–63.)
- 1981 Deméré, T.A.
- x 1984 Domning & Deméré (*Hydrodamalis cuestae*; San Diego Co.; 169–188.)
- xD 1984 Raschke, R.E. (*Desmostylus*, *Paleoparadoxia*, *Diplotherium allisoni*; Middle Mioc.; 62, 64.)
- xD 1990 Repenning & Packard (*Paleoparadoxia*; Stanford Linear Accelerator Center, Santa Clara Co.; 199.)
- xD *1991 Clark, J.M. (*Paleoparadoxia weltoni*, n.sp.; Early Mioc., Point Arena, Mendocino Co.; 494–495.)
- *1994 Aranda-Manteca et al. (*Metaxytherium arctodites*,

n.sp.; Middle Mioc., Orange Co.)

Canada

- x 1861 Strauss-Durckheim (?HG; Hudson's Bay; 513-514.)
- x_D 1917 Kermodé, F. ("*Desmostylus hesperus*" [= *Cornwallius*]; British Columbia; 42-43, pl. 9.)
- x_D*1922 Cornwall, I.E. (*Desmostylus sookensis*, n.sp.; Late Olig., British Columbia; 121-123.)
- x 1934 Anon. (supposed HG; carcass found in British Columbia; 1011.)
- x_D 1935 LaMotte, R.S. (*Desmostylus sookensis*; 51-52.)
- x_D 1963 Mitchell & Repenning (desmostylians; British Columbia; 10-11, 15.)
- 1973 Jeletzky, J.A.
- x_D 1993 McAnally, L.M. (*Cornwallius sookensis*; British Columbia; discovery & theft of type material; 8-9.)
- D 19?? Cox, R.L.
- Captivity, Sirenians in (SEE ALSO: Hunting and Capture; Weed Control; Appendix 2)
- 1792 SEE Aragon, F., 1951.
- x 1847 Edwards, W.H. (TI; Pará & New York; 188.)
- x 1848 Schomburgk, R. (?TI; Rio Branco, ?Brazil; 786.)
- x 1851 Gosse, P.H. (TM; Hispaniola; 347-348.)
- 1864 Latimer, G.
- 1866 Sclater, P.L.
- x 1869 Brinton, D.G. (TML; Jacksonville, Florida & Savannah, Georgia; m51.)
- x 1871 Cunningham, R.C. (*Trichechus*; Rio de Janeiro; 798.)
- x 1872a Murie, J. (TMM; Puerto Rico, 191-192; Suriname, 192-193.)
- x 1873 Conklin, W.A. (*Trichechus*; New York; 166.)
- x 1874b Anon. (TML; Savannah, Georgia; 446.)
- x *1875 Anon. (TMM; England; 295.)
- 1875 Blanchere, H. de la (*Trichechus*; New York)
- 1875a Garrod, A.H.
- x 1876 Chapman, H.C. (TMM from Guyana; Philadelphia; 459-462.)
- x 1876 Southwell, T. (*Trichechus*; London, 56, 58-59; Rio de Janeiro, 58.)
- x 1878 Brown & Lidstone (TI; Manaus; 395-396.)
- x *1878 Brown, A.E. (TMM from Orinoco R.; Philadelphia; 294-297.)
- x 1878 Harting, J.E. (TM; England; 285-287.)
- 1879 Francis, F. (TMM; Brighton Aquarium)
- 1879 Murie, J. (TMM; Westminster Aquarium; cause of death)
- 1879 Smith, R.
- x 1880 Murie, J. (TMM; British Guiana & London; 21-26.)
- x *1881 Crane, A. (*Trichechus*; Brighton; 456-460.)
- x 1881 Flower, W.H. (*Trichechus*; Brighton; 456.)
- 1887 Kappler, A. (TMM; Suriname)
- x 1889 Anon. (TMM from Guyana; London; 527-528.)
- x 1889 Scammon, C.M. (TML; Key West; 581-582.)
- x 1889 Zipperlen, A. (TML; Cincinnati; morphology; 25-26.)
- x 1891 Flower & Lydekker (*Trichechus*; Brighton; m216, 218.)
- x 1891 Leidy, J. (*Trichechus*; Philadelphia; parasite *Amphistomum fabaceum*; 413-414.)
- x 1893 Anon. (*Trichechus*; England; 799-800.)
- x 1893 Goeldi, E.A. (*Trichechus* from Brazil; died en route to London; 120-121.)
- x 1895 Yerbury & Thomas (DD; Aden; m555.)
- x 1896 Sclater, P.L. (TI, TM; London; 212.)
- x *1897 Anon. (*Trichechus*; England; 36.)
- x 1897 Beddard, F.E. (TI; London; 47-48.)
- x 1898 Kirke, H. (TMM from Guyana; London; 134-135.)
- 1899 Langkavel, B.
- x 1904 Goeldi & Hagmann (TI; Brazil; m89.)
- x 1905 Townsend, C.H. (TM; New York; 91, 94, 97.)
- x *1907 Freund, L. (history of manatees in capt.; 65-72.)
- x 1907 Townsend, C.H. (TML; New York; 86.)
- x 1908b Anon. (TML; New York; 427.)
- x 1908b Gudernatsch, J.F. (TM; New York; 225-235.)
- x *1908 Hanitsch, R. (DD; Singapore, in 1895; 13.)
- x 1909 Graham, S.C. (TML; Indian River, Florida; 413.)
- x 1915 Anon. (TMM from Puerto Rico; New York; 1216-1217.)
- x 1916 Anon. (TI; New York; 1419, 1421.)
- *1916 Board Agric. Br. Guiana (TMM; Guyana)
- x 1917 Fairchild, D. (*Trichechus*; 342, 344.)
- x 1919 Anon. (TI; New York; 46.)
- x 1919 Stiles, C.W. (TML; Wilmington, North Carolina; m658.)
- x 1922 Parker, G.H. (TML; Miami; 128-135.)
- x 1923 Anon. (TS; Niger R.; 75.)
- x *1924-1925 Vosseler, J. (history of manatees in capt., 58-63; TI, capture & transport, 63-67; in Hamburg, 113-133, 167-180, 213-227; compatibility with other animal species, 227.)
- x 1926 Derscheid, J.M. (TS; Antwerp, 23-25; Congo, by natives, 30.)
- x 1928 Prater, S.H. (DD; Red Sea; 84.)
- x 1930 Vosseler, J. (TI; Hamburg; 362-364.)
- x 1931 Brimley, H.H. (TML; North Carolina; 320-321.)
- x 1931 Travassos & Vogelsang (TM; Hamburg; parasite *Cochleotrema cochleotrema*; 145.)
- 1932 Khalil & Vogelsang (TM; Hamburg)
- x 1937 Barbour, T. (TML; Miami; birth; 106-107.)
- x 1938 Devillers, C. (TI; France; measurements, behavior; 84-88.)
- x 1938 Oldham et al. (TI; Chicago; m27.)
- x *1939 Coates, C.W. (TI; New York; 141-148.)
- 1940 Anon.

- x 1940 Coates, C.W. (TI; Manaus & New York; 99–100.)
- x 1941a Gunter, G. (TM from Texas; Texas & New Orleans; 61–62.)
- x 1941 Scholander & Irving (TML; diving experiments; 170–191.)
- x 1944 Pereira, M.N. (TI; Belém, Recife, & Manaus, Brazil; 58.)
- x 1947 Harwood, K. (TML; Florida; pop. acc.; 50, 89.)
- x 1948 Bessac & Villiers (TS; Dakar, Senegal; 189.)
- x 1951 Aragon, F. (DD; Philippines, in 1792; 265–266.)
- x 1951a Moore, J.C. (TML; Bradenton, Florida; 14.)
- x 1951b Moore, J.C. (TML; Florida; kept in pens for food, 23; births, 26–28; behavior, 29–32; food, 33–34.)
- x 1952 Anon. (TML; Florida; 129–130.)
- x 1952 Dekeyser, P.L. (TS; Senegal; 243.)
- x 1953 Gijzen, A. (TS; Antwerp; 89.)
- x 1954 Anon. (TS; Antwerp; 78.)
- x 1954b Friant, M. (TI; Vincennes, France; m129.)
- x 1954 Gunter, G. (TM; Florida, 1880; 545.)
- x 1954 Lawrence, J.E. (TML; Florida; 403.)
- x 1955a Anon. (DD from Palau; San Francisco; 79.)
- x 1955b Anon. (DD from Palau; San Francisco; 73–74.)
- x 1955 Severin, K. (TML; Florida; 147–149.)
- x 1956a Anon. (DD from Palau; San Francisco; 49.)
- x *1956 Harry, R.R. (DD from Palau; San Francisco; 21–27.)
- x 1956 Simpson, D.A. (DD; San Francisco; pop. acc.; 54, 57, 74.)
- x 1957 Bayer & Harry-Rofen (DD; Palau & San Francisco; 502, pl. 20.)
- x *1957 Moore, J.C. (TML; Florida; birth; 137–138.)
- x 1958 Anon. (DD; Kenya; 693, 792.)
- x 1958 Gijzen, A. (TS; Antwerp; 26.)
- x 1958 Savory, B. (TML; London; m257.)
- x 1958 Steinbacher, G. (TML; Florida)
- x 1959 Jones, S. (DD; India; 198–202.)
- x 1959 Ulmer, F.A., Jr. (Philadelphia)
- x 1960 Jonklaas, R. (DD; Sri Lanka; 304.)
- x 1960 Mani, S.B. (DD; India; m217.)
- x 1961 Jonklaas, R. (DD; India & Sri Lanka; 1–8.)
- x 1961 Moore, J.C. (DD; East Africa; photos; 54–55.)
- x 1961 Silas, E.G. (DD; India; 264–265.)
- x 1962 Tranngocloi, N. (DD; Vietnam; 451.)
- x 1963 Hofmeister, M. (?TMM from Guyana; Toledo, Ohio; 12.)
- x 1964a Bertram & Bertram (TMM; Guyana; 116, 119.)
- x 1964 Crandall, L.S.
- x 1964 Humes, A.G. (TML; Miami; parasite *Harpacticus pulex*; 517–518, 528.)
- x 1964 Phillips, C. (TML; Miami; pop. acc.)
- x 1965 Lukaszewicz, K.
- x 1965 Schevill & Watkins (TML; Miami; m373.)
- x 1966 Kinzer, J. (TS; Abidjan, Ivory Coast; 47–52.)
- x 1966 Thomas, D. (DD; India; 81.)
- x 1967 Aung, S.H. (DD; Rangoon; 221.)
- x 1967 Browder, J. (TML; Florida; weed-control experiments; 4.)
- x 1967 Fiuza Lima, F. (TI; Brazil; captive breeding proposed; 17–18.)
- x 1967 Gleiss, G.W.
- x 1967a Jones, S. (DD; New Caledonia, 216; India, 217–219.)
- x 1967 Kenny, R. (DD; Australia; 372–373.)
- x 1967 MacLaren, J.P. (TMM, TI; Panama; weed control; 388–393.)
- x 1967 Oke, V.R. (DD; Cairns, Australia; 220–221.)
- x 1968b Anon. (TI; San Francisco; 2–3.)
- x 1968 Betz, J.J. (TML; Florida, in 1892, 205, 207–209; Chicago, in 1893, 207.)
- x 1968 Garibaldi, L. (TI; San Francisco)
- x 1968 Gewalt, W. (TML; Germany; 123–125.)
- x 1968 Van den Bergh, H. (TS; Antwerp; m449.)
- x 1969 Allsopp, W.H.L. (TS; Abidjan, Ivory Coast; 351.)
- x 1969 Dempster & Shipman (use of copper sulfate in tanks)
- x *1969 Frye & Herald (TI, San Francisco, osteomyelitis, 1073–1076; DD, San Francisco, 1076.)
- x *1969 Herald, E.S. (DD, *Trichechus*; San Francisco, Pittsburgh, etc.; 29–30.)
- x 1969 Jacobi, E.F. (plan of manatee facility at Amsterdam Zoo; 64–65.)
- x 1970 Eichler & Albrecht
- x 1970 Evans & Herald (TI; San Francisco; vocalizations; 820–823.)
- x 1970 Loughman et al. (TI; San Francisco; chromosomes; m151.)
- x 1970 Radhakrishnan & Bradley (TML; Tampa, Florida; parasites *Chiorchis fabaceus* & *Plicatolabia hagenbecki*; 59.)
- x 1970 Schreider & Schreider (TI; Leticia, Colombia; 142.)
- x 1970 Yin, T. (DD; Burma; 326.)
- x 1971 Jones, M.L. (DD, TI, TM, TS; longevity; 85.)
- x 1972 Bartmann, W.
- x 1972 Blessing et al. ("*Trichechus manatus inunguis*"; Duisburg, Germany; 167–168.)
- x 1972 Blessing, M.H. ("*Trichechus manatus inunguis*"; Duisburg, Germany; m475.)
- x 1972 Boorer, M.K. (TM; London; swimming clockwise; m165.)
- x 1972 Caldwell & Caldwell (TML; play, 450; food, 454.)
- x 1972 Coimbra-Filho, A.F. (*Trichechus*; Brazil; m86–87.)
- x 1972 Phillips, C. (recommendations for captive facilities; 36–37.)
- x 1973 Bertram & Bertram (DD, *Trichechus*; 328–329.)

- x 1973 Lewis & Wilson (TI; Pittsburgh; m421.)
- x 1973 Sonoda & Takemura (TMM, TI, DD; Japan; 19-22.)
- x 1974 Bartmann, W. (TM; Duisburg, Germany; skin disease; 13-16.)
- x 1974a Dekker, D. (TMM; shipboard transport, Suriname-Amsterdam; 68-69.)
- x 1974b Dekker, D. (TMM; Suriname; capture of 15; 3.)
- x 1974 Mondolfi, E. (TMM; Venezuela; m6-7, m11, m13.)
- x 1974 Sanger, C. (TMM; Guyana; born in capt.; weed control; 23.)
- x 1974 Sikes, S. (TS; Nigeria; 468-469.)
- x 1974 Tabuchi et al. (TM; Japan; skin fungus; 127.)
- x 1975b Anon. (TML; Miami; conception & birth in capt.; 6-7.)
- x 1975 Lynd, W. (TML; Miami; rehabilitation; m29.)
- x 1975 Pinto da Silveira, E.K. (TMM, TI; Brazil; 223-226.)
- x *1976 Allen et al. (DD; Sulawesi; in "semidomestication" by villagers, 35; in oceanarium, 35-40.)
- 1976d Anon. (TML; Florida)
- x 1976 Boever et al. (TI; St. Louis, Missouri; *Mycobacterium* infection; 927-929.)
- 1976 Byczkowska-Smyk, W.
- x 1976 Paz & Ilani (DD; Egypt; 74.)
- x 1976 Tas'an (DD; Jakarta; 1-12.)
- x 1977 Boever et al. (TI; St. Louis, Missouri; parasite *Chiorchis*; 5-6.)
- 1977a Dekker, D.
- 1977b Dekker, D.
- x 1977 Domning & Magor (TI; Manaus; tooth replacement; 435-438.)
- x 1977c Domning, D.P. (TI; Manaus; INPA & private owners; 3.)
- x 1977 Nair & Lal Mohan (DD; India; 277.)
- 1978 Asano et al. (DD; Toba, Japan)
- x 1978 Campbell & Gicca (TMM from Mexico; sent to China; 261, 263.)
- 1978 Cornell & Asper (North America)
- 1978 Dekker, D. (TMM; Amsterdam)
- x 1978 Harper, H. (TML; St. Augustine, Florida; release; pop. acc.; 12.)
- x 1978 Kasuya & Nishiwaki (DD; Japan; 301-303.)
- x 1978 Taylor, D. (DD; Sumatra; tears used as aphrodisiac; 205-213.)
- x 1979 Bachman & Irvine (TML; Florida; milk composition; 873.)
- x 1979 Best & da Silva (TI; Manaus; milk feeding; 27, 29.)
- 1979 Glazebrook, R. (DD; Australia)
- x 1979 Hartman, D.S. (TM, TI; food consumption; 54.)
- 1979 Irwandi & Jarman (DD; Indonesia)
- x 1979 Kamiya et al. (DD; Japan & Okinawa; 129.)
- 1979 Lowry, B.H. (TML)
- x 1979 Miyazaki et al. (DD; Okinawa; 125-126.)
- x 1979 Mok & Best (TI; Manaus; skin fungus; 79-81.)
- x *1979 Tas'an et al. (DD; Jakarta; capture, transport, & captive maintenance; 1-30.)
- x 1980 Bullock et al. (TI; Manaus; evoked brain potentials; 131.)
- x 1980 Dekker, D. (TMM; Amsterdam; birth & behavior; 21-26.)
- x 1980 Domning, D.P. (TI, San Francisco & Manaus; TML, Florida; food position preference; 544-547.)
- x 1980 Gallivan & Best (TI; Manaus; metabolism & respiration; 245-253.)
- x 1980 Gallivan, G.J. (TI; Manaus; respiratory control; 254-261.)
- x 1980 Irvine et al. (TML; Florida; clinical parameters; 2-10.)
- x 1980 Kataoka & Asano (DD; Toba, Japan; 269-270.)
- x 1981 Asper & Searles (TML; Florida; care of injured & orphaned animals; 121-127.)
- x *1981 Best, R.C. (review of diets of captive sirs.; 13, 15, 17-24.)
- x 1981b Beusse et al. (TML; Orlando, Florida; treatment of injuries; 111-120.)
- x 1981 Brownell, Ralls & Reeves (TML; review & research needs; 10-13.)
- x 1981 Cardeilhac et al. (TML; Florida; artificial rearing; 141.)
- x 1981 Domning & Myrick (TI; Manaus; tetracycline marking of bone; 203-204.)
- x 1981a Domning, D.P. (TI; Brazil; 89-90.)
- x 1981b Domning, D.P. (TI; Manaus; pop. acc.; 18-23.)
- x 1981 Elliott et al. (DD; Cairns, Australia; salmonellosis; 203-205.)
- x 1981 Jenkins, R.L. (TML; St. Augustine, Florida; husbandry; 128-130.)
- x 1981 Kataoka & Asano (DD; Toba, Japan, & Okinawa; 199-203.)
- x 1981 Montgomery et al. (TI; Manaus; freeze-branding & radiotagging; 81-82.)
- x 1981 Odell, D.K. (TML; Florida; growth; 131-140.)
- x 1981 Zeiller, W. (TML; Miami, Florida; husbandry; 103-110.)
- x 1982 Best, Ribeiro et al. (TI; Manaus; artificial rearing; 263-267.)
- 1982 Cornell et al. (North America)
- x 1982 Kleinschmidt, A. (TM; various locations; 412.)
- 1982b O'Keefe, M.T. (TML; Orlando, Florida; pop. acc.)
- x 1982 Werzinger, J. (TM; Nuremberg; birth & artificial rearing; 34-37.)
- x 1983 Bradley et al. (TMM; hypothetical use by Olmecs; 1-82.)
- x 1983 Irvine, A.B. (TML; Florida; metabolic experiments; 316-331.)

- x 1983b Kinnaird, M.F. (TML; Florida; experiments on response to high-intensity sound; 3-4.)
- x 1983 Lainson et al. (TI; Manaus; protozoan *Eimeria trichechi*; 287-289.)
- x 1983 Piggins et al. (TI; Manaus; eyes & vision; 113-129.)
- x 1984 DiPerna, P. (TML; Florida; captive breeding; pop. acc.; 16-17.)
- x 1984 Domning & Hayek (TI; Manaus; tooth replacement; 106-127.)
- x 1984 Lomolino & Ewel (TML; Florida; digestive efficiencies; 176-179.)
- 1984 Qi, J. (TM; Beijing)
- x 1984 White, Francis-Floyd & Waterstrat (TML; Miami; growth rates; 30-34.)
- x 1984a White, J.R. (TML; Miami; birth in capt. & captive breeding; pop. acc.; 414-418.)
- x 1984b White, J.R. (TML; Florida; captive breeding & release; pop. acc.; 369-375.)
- x 1985 Beckjord, J.-E. (DD; Papua New Guinea; kept alive in a hut for a week before slaughter; 154-155.)
- x 1985 Etheridge et al. (TML; Florida; feeding experiments; 21-23.)
- x 1985 Morales et al. (TI; San Francisco; *Mycobacterium* infection; 1230-1231.)
- x 1985 Qiu, Y.-X. (TM; Beijing; 35-36.)
- x 1986 Colmenero-R., L.C. (TMM; Mexico; 600.)
- x 1986 Gallivan & Best (TI; Manaus; feeding & metabolism; 552-557.)
- x 1986 Gallivan et al. (TI; Manaus; heart rates & respiration; 415-423.)
- 1986 Geraci, J.R.
- x 1986 Morales, P. (TI; San Francisco; food, pathology; 43-48.)
- x 1987b Anon. (TML; Florida; artificial rearing; 225.)
- x 1987 Colares & Ferreira (TI; Manaus; intestinal polyp; 39.)
- x 1987 Colares et al. (TI; Manaus; artificial milk formulas; 40-41.)
- x 1988 Carowan, G. (TML; Florida; rehabilitation & release, & exhibit at Epcot Center, Orlando; 5.)
- x 1988 Ho, H.C. (DD; Singapore; 24-25.)
- 1988a Qiu, Y.-X. (TM; Beijing)
- 1988b Qiu, Y.-X. (TM; Beijing)
- x 1989 Upton et al. (TML; Florida; protozoans *Eimeria* spp.; 87-88.)
- 1990 Bisselink, A.-M. (*Trichechus*; Arnhem, The Netherlands)
- x 1990 Colares et al. (TI; Manaus; care & feeding; 43-47.)
- *1990 Dierauf, L.A. (veterinary care; transport techniques)
- x 1991 Haigh, M.D. (TMM; Guyana; weed control; 339-349.)
- x 1992 Borobia & Lodi (TMM; Recife, Brazil; m41.)
- 1992 Colares & Colares (TI; Brazil)
- 1992 Grubel da Silva, Soavinski et al. (TMM; Brazil)
- x 1992 Simmons, N. (TML; Orlando, Florida; rehabilitation; pop. acc.; 9.)
- x 1993 O'Keefe, M.T. (TML; Florida; pop. acc. with descriptions & histories of facilities; 96-113.)
- 1993 Wolf, M. (TML; Florida; pop. acc.)
- Capture: SEE Hunting and Capture
- Caribbean Manatee: SEE *Trichechus manatus*; *Trichechus manatus manatus*; and synonyms
- Caribbean Sea (SEE ALSO: Central America; Cuba; Haiti; Jamaica; Mexico; Panama; Puerto Rico; South America; West Indies)
- x 1880 LeBaron, J.F. (*Trichechus* bones dredged from bottom between Florida Cape & Cuba; m1005.)
- x 1954 Gunter, G. (TM; distr.; 543-544.)
- 1973 Varona, L.S.
- x *1989 Lefebvre et al. (TMM; biogeography; 589-591, 599.)
- x 1993 Suttly, L. (TM; pop. acc.; 20-21.)
- x 1994a Domning, D.P. (fossil sirs. & seagrasses; pop. acc.; 72-73.)
- Caribosiren* Reinhart, 1959
- *1959 Reinhart, R.H. (n.gen.)
- x 1965 Arata & Jackson (m176.)
- x 1971 Reinhart, R.H. (m5-7.)
- x 1974 Domning, D.P. (m8.)
- x 1974 Fondi & Pacini (comp. w/ *Metaxytherium forestii*; 43.)
- x 1978b Domning, D.P. (comp. w/ *Dusisiren*; m73.)
- Caribosiren turneri* Reinhart, 1959
- *1959 Reinhart, R.H. (n.gen.n.sp.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 66, 70.)
- x 1966 Kellogg, R. (review, 66; comp. w/ *Metaxytherium calvertense*, 73.)
- x 1967 Paula Couto, C. de (m346.)
- x 1972 Varona, L.S. (comp. w/ *Metaxytherium riveroi*; 7.)
- x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 272.)
- x 1990 MacPhee & Wyss (review & possible new material; 21, 26-29, 35-36.)
- Census Methods: SEE Aerial Surveys of Distribution; Population Biology; Tagging Methods & Recognition
- Central America (SEE ALSO: Belize; Costa Rica;

- Guatemala; Honduras; Mexico; Nicaragua; Panama)
- 1822 Hodgson, R.
1827 Roberts, O.W.
1862 Bell, C.N.
1869 Pim & Seeman
1872 Wickham, H.A.
1879–
1882 Alston, E.R.
1879 Peacock, G.
1899 Bell, C.N.
1932 Conzemius, E.
x 1946 Baughman, J.L. (TMM; early accounts; 234–237.)
1965 Squier, E.G.
1970 Wilbert, J.
x 1974 Savage, J.M. (*Trichechus*; zoogeography; 15, 20, 26, 29.)
1978 Stark & Voorhies
x 1983 Bradley et al. (TMM; hypothetical use by Olmecs; 1–82.)
x *1985 McKillop, H.I. (TMM; use in prehistoric Maya area; 337–353.)
x *1989 Lefebvre et al. (TMM; distr., status, & biogeography; 567–570, 580–584, 589–591, 599, 606–607.)
- [Cetaceae] Herbivora Gray, 1821 (= Sirenia)
1821 Gray, J.E.
x 1825 Latreille, P.A. (Order Cetacea, Family Herbivora; in classification; 64–65.)
- Ceylon: SEE Sri Lanka
- Cheirotherium* Bruno, 1839 (*non* Kaup, 1835) (= *Metaxytherium*)
*1839 Bruno, G.D. (n.gen.)
x *1840 Kaup, J.J. (renamed "*Pontotherium* Bruno"; 676.)
x 1847b Gervais, F.L.P. (syn. of *Halitherium*; comp. w/ *H. serresii*; 207, 212–213, 220.)
x 1865 Capellini, G. (priority over *Felsinotherium*; 282.)
x 1872a Gill, T. (in classification; 92.)
x *1941 Kretzoi, M. (renamed *Halysiren*; 153.)
x 1942b Kaltenmark, J. (history of name; 103–104.)
x 1966 Kellogg, R. (m68.)
x 1978c Domning, D.P. (syn. of *Metaxytherium*; m577.)
x 1987 Domning & Thomas (syn. of *Metaxytherium*; 208–209.)
- Cheirotherium brocchii* de Blainville, 1844 (= *Metaxytherium subapenninum*)
*1844 Blainville, H.M.D. de (name introduced; lapsus for *C. subapenninum*)
x 1847b Gervais, F.L.P. (m209–210.)
x 1880 Delfortrie, E. (comp. w/ *Rytiodus*; m142.)
- x 1885a Woodward, H. ("*Halitherium (Chirotherium) brocchii*"; m470.)
x 1942b Kaltenmark, J. ("*C. brocchii*"; m103.)
x 1966 Kellogg, R. (m68.)
- Cheirotherium subapenninum* Bruno, 1839 (= *Metaxytherium subapenninum*)
*1839 Bruno, G.D. (n.gen.n.sp.)
x 1840b Meyer, H.v. (referred to *Halianassa*; 587.)
xv 1865 Capellini, G. (syn. of *Felsinotherium forestii*; 282.)
x 1878a Zigno, A. de (review; 67.)
x 1885a Woodward, H. ("*Chirotherium*"; m470.)
x 1886 Portis, A. (history of name; 356.)
x 1932a Simpson, G.G. (m479, 481.)
x 1941 Kretzoi, M. (in classification; 153.)
x 1942b Kaltenmark, J. (history of name; 103.)
x 1974 Fondi & Pacini (m44–46.)
x 1987 Canocchi, D. (considered nomen dubium; 499.)
x 1987 Domning & Thomas (syn. of *Metaxytherium subapenninum*; m208.)
*1988a Pilleri, G.
- Children's Literature (SEE ALSO: Fiction)
D 1971 Takashi, Y. (discovery of *Desmostylus*)
1975 Dick, H. (TM)
1976d Anon.
x 1978 Isham, C.H. (TML; Blue Spring, Florida; [1–16].)
1979 Alliger, M.E.
1980 Fritz, D. (TML; educator's guide)
1982 Young, O.D. (TML; Florida)
1986 Delaney et al. (educator's guide)
1986 Wright, C.W.
1988 Ober & Hudson (DD; Torres Strait; teaching kit)
x 1988 Smith, D. (DD; Australia; 44–47.)
x 1989 Walsh, K. (TML; Florida; 2–9.)
1990 Clark, M.G. (TML; Florida)
1990 Corey, D. (TML)
1990 Sibbald, J.H. (TML)
1990 Tate, S. (TML)
1991 Darling, K. (TML)
1991 Jacobs, F. (TML; Florida)
1991 Lepthien, E.U. (TML; Florida)
- China (SEE ALSO: Taiwan)
x 1923 Watson, E. (DD; use of oil; 103.)
x 1931 Read, B.E. (HG; ?econ. use; 16.)
x 1935 Allen, G.M. (DD; 79–81.)
x 1935 Sowerby, A. de C. (DD, 81–82; HG, 82.)
x 1936 Sowerby, A. de C. (DD; 41–42.)
1951 Herklots, G.A.C.
x 1973 Bertram & Bertram (DD; Hong Kong; 309.)
x 1979 Zhang, Z.-m. (DD; pop. acc.; 33–36.)
*1986 Wang & Sun (DD)
1986 Zhou, K. (DD)

- 1992 Dong et al. (DD; larynx, trachea, lungs)
- x 1993 Wang, P. (DD; distr.; 275-278.)
- Chronozoon* De Vis, 1884 (diprotodontid marsupial?)
- x *1884 De Vis, C.W. (n.gen.; 392-395, pl. 17.)
- x 1886b Hartlaub, C. (m377.)
- Chronozoon australe* De Vis, 1884 (diprotodontid marsupial?)
- x *1884 De Vis, C.W. (n.gen.n.sp.; 392-395, pl. 17.)
- x 1885a Woodward, H. (m470.)
- *1975 Mahoney & Ride (?syn. of *Phascolomys gigas*; 152.)
- 1976 Reinhart, R.H. (review; 267-269.)
- Circulatory System (including lymphatic system)
- 1806 Meckel, J.F. (*Trichechus*; thymus)
- x *1820b Home, E. (DD; spleen, 319; heart, 319-320, pl. 28.)
- x 1820 Raffles, T.S. (DD; 178.)
- x 1834 Rüppell, E. (DD; heart; 106.)
- 1837 Rapp, W.v. (DD; fetal heart & vessels)
- 1838a Baer, K.E.v. (*Trichechus*; 199.)
- x *1838 Owen, R. (DD; 34-36.)
- x 1857 Rapp, W.v. (TM; pulmonary vessels, lymph glands, heart, arteries, spleen; 91-93, 96, pl. 3)
- x 1862 Goebel, A. (HG; remnants of capillaries in bone; 189-190.)
- x 1862 Phillippo (*Trichechus*; heart; 684-685.)
- 1866 Huxley, J.
- x *1872a Murie, J. (TMM; 175-178.)
- x 1875 Chapman, H.C. (TMM; 457-458.)
- 1877 Garrod, A.H.
- 1878 Gulliver, G.
- x 1880 Murie, J. (TMM; cranial arteries; 42, pl. 9.)
- x *1897 Beddard, F.E. (TI, TM; 51-52.)
- x *1899 Steller, G.W. (HG; 192-194, 199.)
- x 1905 Mitchell, P.C. (TI; portal [posterior mesenteric] vein; 465.)
- 1905 Wilder, B.G. (*Trichechus*; heart)
- x *1906b Dexler & Freund (DD; 58.)
- x 1907 Pick, F.K. (DD; pulmonary vessels, 245-251, 261, 265-270; blood cells, 266-267.)
- x 1912b Dexler, H. (DD; cerebral retia; 100-102.)
- x 1923 Kostanecki, K. (TI; omphalo-mesenteric arteries; 273-276.)
- x 1923 Nopcsa, F.v. (circulation, bone marrow, hemopoiesis, & pachyostosis; 355-358.)
- x 1935a Wislocki, G.B. (TML; pulmonary vessels, 387, 390, 392; lymph vessels & lymphoid tissue in lung, 389, 392.)
- x *1935b Wislocki, G.B. (TML; placenta & umbilical cord; 160-162, 164-171, pls. 1-7.)
- 1936 Slijper, E.J.
- x *1941 Scholander & Irving (TML; heart rate, 171-172, 189; peripheral vasoconstriction, 185.)
- x *1942a Fawcett, D.W. (TML; blood-vascular bundles; 105-133.)
- 1948 Franklin, K.J. (*Trichechus*; heart)
- x 1953 Quiring & Harlan (TM; heart, 194, 202; retia & other vessels, 200-201.)
- D 1954 Ijiri, S.
- x 1958 Knoll, W. (*Trichechus*; blood cells; 332-333.)
- 1958 Scholander, P.F.
- x *1958 Tenney, S.M. (TM; heart & electrocardiogram; 933-938.)
- 1959 Anon.
- x 1961 Slijper, E.J. (foramen ovale, ductus arteriosus; 536-537, 544, 548-549.)
- 1965 Grauwiler, J.
- 1965 Robb, J.S. (heart)
- 1969 Elsner, R.
- x 1969 Robineau, D. (internal carotid & stapedia arteries; 13.)
- x *1972 Blessing et al. (TI; spleen; 166-171, 173-178, 182-188, 190, 193, 195-203.)
- x 1972 Blessing, M.H. (*Trichechus*; heart myoglobin; 475-479.)
- x 1973 Lewis & Wilson (*Trichechus*; blood plasma fibrinogen; 421-422.)
- x 1976 Allen et al. (DD; heart, retia in flukes; 42, 46.)
- x 1976 White et al. (TML; blood chemistry; 413-416.)
- x 1977 Murray et al. (DD; blood analyses; 7-8.)
- x 1978 McCabe et al. (DD; oxygen affinity of hemoglobin; 19-22.)
- x 1979 Anderson, P.K. (DD; rapid blood clotting and ?anti-shark adaptation; 127.)
- x 1979a Farmer et al. (TI; properties of hemoglobin & whole blood; 231-238.)
- x 1979 Tas'an et al. (DD; in capt., Jakarta; heart rates; 10, 23.)
- x 1980 Irvine et al. (TM; blood values; 3-5.)
- x 1981 Marsh & Glover (DD; testicular artery, 264, 273; blood sampling techniques, 266-267.)
- x 1981 Odell et al. (TML; heart & spleen weights; 54-57, 60, 63.)
- x 1981 Rainey, W.E. (DD; blood sampling techniques; 241-244.)
- x 1982 Medway, Black & Rathbun (TML; hematology & blood sampling; 11-15.)
- x 1982 Medway, Bruss et al. (TML; blood chemistry; 229-234.)
- x 1982 Medway, Dodds et al. (TML; blood coagulation; 120-127.)
- x 1983 Marsh & Anderson (DD; blood chemistry & capture myopathy; 1-3.)
- x 1984 Bazzini et al. (TM; hemopoiesis in vertebral bodies; 19.)

- x 1984 Galantsev & Mukhametov (TM; cardiac rhythms, venous sinuses & plexuses; 201-205.)
- x 1984 Snipes, R.L. (TM; arteries to cecum; 69-70.)
- x 1985 Morales et al. (TI; white blood cell counts; 1231.)
- x *1985 Rowlatt & Marsh (DD, TM; heart & great vessels; 95-106.)
- x *1986 Bazzini et al. (TM; hemopoiesis; 150-152.)
- 1986 Galantsev, V.P. (TM; venous system)
- x 1986 Gallivan et al. (TI; cardiac rhythms & gas exchange during diving; 415-423.)
- x 1987 Colares & Ferreira (TI; normal & pathological blood values; 39.)
- x 1988 Fischer, M.S. (TM; vessels of ear region; 369-375.)
- x 1988 Kleinschmidt et al. (TI; hemoglobin; 507-512.)
- 1989 Galantsev & Kuz'min (venous & arterial systems)
- 1990 Bossart & Dierauf (TML; blood sampling & hematology)
- x 1990 Buergelt et al. (TML; thickened heart valves; 220-227.)
- Colombia
- x 1855a Gervais, P. (TI; Pebas; anatomy & econ. use; 114-116.)
- x 1857 Holton, I.F. (TMM; Laguna de Tesca, Cartagena; 46.)
- x 1883 Pelzeln, A.v. (TMM; Cienega R.; 93-94.)
- x 1904 Allen, J.A. (TMM; coastal region; 423.)
- x 1920 Goldman, E.A. (TMM; Atrato & Cacarica Rs.; 71.)
- x 1939 Wavrin, M. de (*Trichechus*; various localities; 194.)
- x *1951 Reinhart, R.H. (*Potamosiren magdalenensis*, n.gen.n.sp.; Mioc.; 203-204, 211.)
- x *1953 Stirton, R.A. (La Venta fauna & localities [Mioc.]; 614.)
- x 1956 McKenna, M.C. (*Lophiodolodus*; Olig.; supposed sir.; m739.)
- x *1966 Kellogg, R. (*Metaxytherium ortegense*, n.sp.; Mioc.; 92-93.)
- 1968 Medem, F.
- x 1969 Frye & Herald (TI; near Leticia; 1073.)
- x 1970 Schreider & Schreider (TI; in capt., Leticia; 142.)
- 1971 Camacho, J.I.H.
- x 1982b Domning, D.P. (*Potamosiren* sp.; Mioc.; 601-602.)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 584-585, 607.)
- x 1992 Marmontel et al. (TMM; boat-related fatalities; m308.)
- Commander Islands: SEE Bering Sea
- Commensalism: SEE Community Ecology; Parasitology
- Communication: SEE Behavior; Sound Production
- Community Ecology (SEE ALSO: Food; Food Plants; Natural Enemies; Paleocology; Parasites; Parasitology)
- x *1899 Steller, G.W. (HG; removal of ectoparasites by gulls; 198, 201.)
- 1945 Hill, W.C.O. (DD; ?commensal fish in prepuce)
- x 1975 Dayton, P.K. (HG; N. Pacific; ?dependence on sea otters for protection of kelp supply; 236-237.)
- x 1975 Morse, D.H. (manatees & turtles considered "ecological replacement" of temperate-zone aquatic birds; 173.)
- x 1975 Pinto da Silveira, E.K. (TI; feces eaten by fish; 226.)
- x 1977 Boever et al. (TI; trematode *Chiorchis* a ?commensal; 6.)
- xD *1977b Domning, D.P. (sirs. & desmostylians; N. Pacific; 352-362.)
- x 1977 Heinsohn et al. (DD; nutrient recycling; possible competition with turtles; 240-241.)
- x 1978 Anderson & Birtles (DD; Queensland; no interspecific interactions; 15.)
- xD *1978b Domning, D.P. (sirs. & desmostylians; N. Pacific; 113-116, 139-146.)
- 1978 Simenstad et al. (HG; Aleutians)
- x 1979 Anderson, P.K. (DD; possible competition with turtles & man; 136.)
- x 1979 Hartman, D.S. (TM; Florida; interspecific interactions, 59-60; commensals, 62-64.)
- 1981 Ray, G.C.
- x 1982b Anderson, P.K. (DD; Shark Bay, Australia; ?commensal feeding by cormorants; 94.)
- x *1982 Scott & Powell (TML; Florida; commensal feeding by little blue herons; 215-216.)
- x 1984c Anderson, P.K. (DD; Queensland; no interspecific interactions; 40.)
- x 1984 Nietschmann, B. (DD; Torres Strait; competition with turtles; 632-637.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; 985, 988-1007.)
- Competition: SEE Community Ecology
- Conservation (SEE ALSO: Accidental Mortality; Economic Uses; Hunting and Capture; Weed Control)
- 1820 Daniel, J. (TI; Brazil)
- 1892 Hartwig, G.L.
- x 1903 Rodriguez Ferreira, A. (*Trichechus*; Brazil, 18th century; administration of hunting; 172-173.)
- x 1908b Gudernatsch, J.F. (TML; Florida; fines for killing; 233.)

- x 1918 Cuní y Valera, L.A. (TMM; Cuba; legislation, 1901; 93.)
- 1921 Gruvel, A.
- 1922 Gruvel, A.
- 1925c Petit, G.
- x 1926 Derscheid, J.M. (TS; Congo; legislation; 30–31.)
- 1928 Herre, A.W. (DD; western Pacific)
- x 1934 Hirasaka, K. (DD; Taiwan; 4222.)
- 1939 Deraniyagala, P.E.P.
- x 1940 Machado, F. de P. (TI; Brazil; proposed hunting regulations; 246.)
- x 1941–
- 1943 Pereira, M.N. (TI; Brazil; recommendations; 102, 153–154, 218, 65.)
- x 1944 Pereira, M.N. (TI; Brazil, 92–94; Peru, m93.)
- x 1948 Cahalane, V.H. (TML; Everglades, Florida; 258.)
- x 1954 Lawrence, J.E. (TML; Florida; 404.)
- x 1954 Pereira, M.N. (TI; m269, m271.)
- x 1956 Moore, J.C. (TML; Florida; 7.)
- x 1958 Savory, B. (DD; Tanganyika; 257–258.)
- 1959 Anon.
- x 1959 De Silva, J.A. (DD; Sri Lanka; 173–174.)
- x 1959 Spittel, R.L. (DD; Sri Lanka; 174–175.)
- x 1960 Blancou, L. (TS; West Africa; 244.)
- x 1960 Crusz, H. (DD; Sri Lanka; 302.)
- x 1960 Jonklaas, R. (DD; Sri Lanka; 302–304.)
- x 1960 Norris, C.E. (DD; Sri Lanka; 298–300.)
- x 1960 Spittel, R.L. (DD; Sri Lanka; sanctuary; 304–305.)
- x 1961 Jonklaas, R. (DD; Sri Lanka; 7–8.)
- x 1961 Silas, E.G. (DD; India; m266.)
- x 1962 Bertram & Bertram (TMM; Guyana, etc.; 1329.)
- x 1963 Bertram & Bertram (TMM; Guyana; recommendations; 90–93.)
- 1963 Bertram, G.C.L. (TMM; Guyana)
- x 1963 Pfeffer, P. (DD; Indonesia; 150–151.)
- x 1964a Bertram & Bertram (TMM; Guyana; 119–120.)
- x 1964 Cansdale, G. (TS; Ghana; status; 170–171.)
- 1965 Crowe, P.K.
- 1965 Deraniyagala, P.E.P.
- x 1965 Harrisson, T. (DD; Borneo, Sabah; status; 103.)
- x 1966a Bertram & Bertram (DD; Australia; 938–939.)
- x 1966b Bertram & Bertram (sirs.; gen. acc.; 213–217.)
- x 1966c Bertram & Bertram (DD; Australia; 221–222.)
- x 1966 Funaioli & Simonetta (DD; Somali Republic; 317.)
- 1966 Jones, S. (DD; Indopacific)
- 1967 Anon.
- x 1967 Browder, J. (TML; Florida; 3–5, 34.)
- x 1967 Carvalho, J.C. de M. (TI; Brazil; exploitation; 25–27, 31, 33.)
- x 1967 Jones, S. (DD; India; 220.)
- x 1967 MacLaren, J.P. (*Trichechus*; Panama Canal Zone; legislation; 393.)
- x 1967 Welsby, T. (DD; Moreton Bay, Queensland; fishing season, 1: 102, 107–108, 2: 241; prohibition of harpooning, 1: 107, 2: 240–241.)
- x 1968a Bertram & Bertram (*Trichechus*, 388–389, 393; DD, 390, 393.)
- x 1968b Bertram & Bertram (sirs.; gen. acc.; 423–426.)
- x 1968 Grimwood, I.R. (TI; Peru; exploitation; 418.)
- x 1969 Anon. (DD; Australia; hunting banned; 90.)
- x 1969 Curry-Lindahl, K. (DD, TS; protected under African Conservation Convention; 122.)
- 1969 De Silva, G.S.
- x 1969 Grimwood, I.R. (TI; Peru; exploitation; 61.)
- x 1970a Bertram & Bertram (DD; Sri Lanka; 53–55.)
- x 1970b Bertram & Bertram (DD; Sri Lanka; 362–364.)
- x 1970 Charnock-Wilson, J. (TMM; Belize; 236.)
- 1971 Bertram & Bertram
- x 1971 Hoffmann, T.W. (DD; Sri Lanka; legislation; 182.)
- x 1971 Hughes & Oxley-Oxland (DD; Mozambique; 300–301.)
- x 1971 Randall, J.E. (DD; Tanzania; m12.)
- x 1972 Coimbra-Filho, A.F. (*Trichechus*; Brazil; 82–87.)
- x 1972 Dupuy, A.R. (TS; Senegal; in national park; 780.)
- x 1972a Hartman, D.S. (TML; Florida; 21–22.)
- 1972b Hartman, D.S.
- x *1972 Heinsohn, G.E. (DD; Queensland; 205, 212.)
- 1972 Mittermaier, R.A.
- x *1973 Bertram & Bertram (sir. distr., status, & threats, 297–328; legislation & prospects, 330–333, 336.)
- x 1973 Cantley, R. (DD; Australia; 34–35, 52.)
- x 1973 Kaiser, H.E. (sirs.; gen. acc.; 4–6.)
- 1973 O'Keefe, M.T. (Blue Spring, Florida; refuge)
- x 1973 Poche, R. (TS; Niger; ?extinct; 218.)
- x 1974 Anon. (Florida; manatee refuge established; 10.)
- x *1974 Bertram, G.C.L. (current status of sirs.; recommendations; 1–19.)
- 1974 Caldwell, D.K.
- x 1974a Hartman, D.S. (TML; Florida; legislation, 210–212; threats, 213–222; recommendations, 223–237.)
- x 1974 Mondolfi, E. (TMM; Venezuela; 13, 16–18.)
- x 1974 Sanger, C. (Guyana; manatee research center; 23.)
- x 1974 Sikes, S. (TS; Nigeria; 466–470.)
- 1974 Spurgeon, D.
- x 1975 Anon. (Florida; manatee survey established; 12–13.)
- x 1975 Bertram & Sale (DD; East Africa; report of meeting; 389–390.)
- 1975 Bertram, G.C.L.
- 1975 Edelbrock, J.
- x 1975 Husar, S.L. (DD; pop. acc.; 15–18.)
- 1975 Husar, S.L.
- x 1975 Whitfield & Farrington (TM; Florida & Guyana; legislation; 37–43.)
- x 1976 Campbell, H.W. (conservation & research on sirs.; 3–9.)

- 1976 Carr, A.
- x 1976 Heinsohn & Wake (DD; Fraser Is., Australia; 15-18.)
- 1976 Jones, M.P. (TM)
- 1976 Langham, N.P.E. (DD; Malaysia)
- x 1976 Reynolds, J.E., III (TML; Florida; 214.)
- 1976 Stivens & Cerny
- x 1976 Tinley et al. (DD; Mozambique; in reserves; 346, 348.)
- x 1976 Wray, P. (TML; Florida; pop. acc.; 13-15.)
- x 1977 Bertram & Bertram (*Trichechus*; need for captive breeding program; Guyana project; 106-108.)
- x 1977 Heinsohn et al. (DD; Australia; 242, 245-246.)
- x 1977 Lovisek, J. (TI; pop. acc.; 62-64.)
- x 1978 Anderson & Birtles (DD; Queensland; 19, 21.)
- 1978-
1982 F.A.O.
- 1978 Grainger, D. (TM)
- x 1978a Heinsohn, G.E. (DD; Australia; pop. acc.; 26-30.)
- x 1978 Stewart, D. (TM; pop. acc.; 113-118.)
- x 1979 Caton, A. (DD; Australia; pop. acc.; 1-4.)
- 1979b Finnley, D.
- x 1979 Harper, H. (TML; Florida; news reporting; 16.)
- 1979 Hudson, B.E.T. (DD; Papua New Guinea)
- x 1979 Klein, E.H. (TMM; Honduras; legislation & status; 21-28.)
- 1979 Leahy, T.M. (TML; Florida)
- 1979 Leccese, M. (TML; Florida; refuges established)
- 1979 Mackey, D.J. (TML; Florida; 14-17.)
- 1979 Parker, F. (DD; Papua New Guinea)
- x 1979 Twiss, J.R., Jr. (TML; Florida; pop. acc.; 10-17.)
- 1979 Vaz-Ferreira, R. (*Trichechus*; Latin America)
- x 1980a Anon. (TML; Florida; pop. acc.; 49.)
- x 1980b Anon. (TML; Florida; pop. acc.; 97-98, 100.)
- 1980d Anon. (DD)
- x 1980 Ayres & Best (TI; Brazil; 83-85, 90-92.)
- 1980 Barile, D.D. (TML; Florida)
- x 1980 Bertram, G.C.L. (sirs.; gen. acc.; 219-221.)
- 1980 Finnley, D.
- x *1980a Hudson, B.E.T. (DD; Papua New Guinea; report on conservation & education program; 1-102.)
- x 1980 Marsh, H. (DD; Australia; implications of life history; 199.)
- 1980 Norkin, M.
- 1980 Raloff, J. (TML; Florida)
- 1980 Reddick, J.
- x 1980 Telander, R. (TML; Florida; pop. acc.; 30-35.)
- x 1981a Anderson, P.K. (DD; conservation & behavior; 640-647.)
- x 1981 Bertram, G.C.L. (DD; past abundance & prospects; 1-7.)
- x 1981 Bingham, B. (TML; Florida; pop. acc.; 91.)
- x 1981 Brownell et al. (DD; Palau; 24, 35-39.)
- x 1981 Brownell, Ralls & Reeves (TML; Florida; recommendations; 15-16.)
- x 1981 Chase, A. (DD; Australia; in Aboriginal cultural context; 112-122.)
- x 1981a Domning, D.P. (TI, TM; Brazil; 94-96.)
- x 1981a Heinsohn, G.E. (DD; Queensland; 55-56.)
- x 1981 Hendrokusumo et al. (DD; Indonesia; legislation; 10.)
- x 1981b Hudson, B.E.T. (DD; Papua New Guinea; conservation & public education program; 123-141.)
- x 1981 Jones, S. (DD; India & Sri Lanka; 50-52.)
- x 1981 Marsh et al. (DD; Wellesley Islands, Australia; 261, 264-266.)
- x 1981a Marsh, H. (DD; Australia & Papua New Guinea; 205-216.)
- x 1981 Prince et al. (DD; Western Australia; 84-85.)
- x 1981 Santiapillai, C. (DD; Sri Lanka; 6.)
- x 1981 Smith, N.J.H. (TI, TM; Brazil; 184-186.)
- x 1982 Anon. (Florida; school workshops; m9.)
- x 1982 Barnett & Johns (DD; Queensland; 518-520.)
- x 1982 Best & Teixeira (TMM; Amapá, Brazil; status & protected areas; 43, 45.)
- x 1982 Bonde, R.K. (TML; Florida; accidental mortality; pop. acc.; 3-5.)
- x 1982 Bradford, D. (TML; Florida; public opinion survey; 9.)
- x 1982 Dick, T.M. (TML; Florida; pop. acc.; 19-22.)
- x 1982 Fletemeyer, J. (TML; Florida; sonar monitoring; 296-299.)
- x 1982 Marsh & Heinsohn (DD; Australia & Papua New Guinea; 4-5.)
- x 1982 Nishiwaki et al. (TS; West Africa; 146.)
- 1982 Reilly, P. (TML; Florida)
- x 1983 Gluckman & Hamann (list of relevant U.S. & Florida laws & regulations; 174-184.)
- x 1983a Gluckman, D. (U.S. & Florida laws & education programs regarding manatees; 233-252.)
- x 1983b Gluckman, D. (U.S. & Florida laws regarding water quality & weed control; 253-273.)
- x 1983c Gluckman, D. (U.S. & Florida acquisition programs for manatee habitat; 274-301.)
- x 1983d Gluckman, D. (U.S. National Environmental Policy Act & manatee protection; 317-320.)
- x 1983a Hamann, R. (laws regarding marina & dock construction & dredging in Florida; 185-232.)
- x 1983b Hamann, R. (Florida laws regarding spring flow at winter manatee refuges; 302-309.)
- x 1983c Hamann, R. (U.S. Endangered Species Act & Marine Mammal Protection Act in relation to manatees; 310-316.)
- x 1983 Kinnaird & Valade (TML; Jacksonville, Florida; recommendations; 15.)
- x 1983a Kinnaird, M.F. (TML; northeastern Florida; recommendations; 51-52.)
- x 1983b Kinnaird, M.F. (TML; Florida; strategies to reduce

- boat-related mortality, 1-19; propeller guard designs, 20-43.)
- x 1983c Kinnaird, M.F. (TML; Florida; reduction of boat-related mortality; 36-37.)
- x 1983 Marsh, H. (DD; Vanuatu; 1-5.)
- 1983a Packard, J.M. (TML; Crystal R., Florida; research & management plan)
- *1983b Packard, J.M. (TML; Crystal R., Florida; research & management plan)
- x 1983 Puckett, C. (Citrus Co., Florida; public attitudes regarding manatees; 321-346.)
- x 1983 Tisdell, C.A. (DD; Papua New Guinea; hunting & economy; 14-15.)
- x 1984 Colmenero-R., L.C. (TMM; Mexico; legislation; 244-245, 249.)
- x 1984 DiPerna, P. (TML; Florida; captive breeding; pop. acc.; 16-17.)
- x 1984 Hudson, B.E.T. (DD; Papua New Guinea; decline of traditional conservation practices; pop. acc.; 298-301.)
- 1984 Johnson & Yablokov
- x 1984 Marsh, Heinsohn & Marsh (DD; Australia; implications of population dynamics; 785.)
- 1985a Anon. (DD; Australia)
- x 1985 Baldwin, C.L. (DD; Australia; management needs; 1-20.)
- x 1985 Domning, D.P. (TML; Florida; habitat protection; [2].)
- x 1985 Kenchington, R.A. (DD; Great Barrier Reef, Australia; 89-90.)
- x 1985 MacKenzie, D. (UNEP marine mammal conservation plan; 4.)
- x 1985 Rathbun, Woods & Ottenwalder (TM; Haiti; 235-236.)
- 1986a Anon. (TM, TI; Brazil)
- x 1986 Baldwin, C.L. (DD; Queensland; 206-212.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; 1009-1013.)
- 1986 Holt, S.
- 1986c Hudson, B.E.T. (DD; Papua New Guinea; traditional hunting)
- 1986 Nielsen, B.
- x *1986 Packard & Wetterqvist (TML; northwestern Florida; habitat evaluation; 279-310.)
- x 1986 Ray & Domning (TML; Florida; 77-78.)
- x 1986 Timm et al. (TI; Ecuador; 154-156.)
- x 1986 Tisdell, C.A. (DD; Australia & Papua New Guinea; 102-104.)
- 1987 Baldwin & Hunnam (DD; Australia)
- x 1987 Reynolds & Wilcox (TML; Florida; pop. acc.; 263-269.)
- 1988 Anderson, G.R.V. (DD; Australia)
- x 1988 Bulman, P. (TML; Florida; enforcement of boat speed laws; 23.)
- 1988 James, P.S.B.R. (DD; India)
- x 1988a Marsh, H. (DD; Australia; 18.)
- 1988d Marsh, H. (DD; Australia)
- x *1988e Marsh, H. (DD; Australia; importance of marine parks; 495-502.)
- x 1988 O'Shea et al. (TMM; Venezuela; 282, 291-293, 298-299.)
- x 1988a O'Shea, T.J. (TML; Florida; needs & justifications; 191-192.)
- 1988 Prince, R.I.T. (DD; Western Australia)
- x 1988 Reeves et al. (TS; Sierra Leone; 82-84.)
- *1988 Reynolds & Gluckman (TML; Florida)
- x 1988 Tucker & Puddicombe (DD; Australia; 82-83.)
- x 1989 Chambers & Bani (DD; Vanuatu; 13-14.)
- x 1989 Leatherwood & Reeves (DD; Sri Lanka; 7, 82, 90-91.)
- x 1989 Packard et al. (TML; Ft. Myers, Florida; implications of power-plant shutdowns; installation of warm-water wells for manatees; 699-700.)
- x 1989 Palmer, D. (TML; Georgia; construction of artificial warm-water refugium; 7.)
- x *1989 Preen et al. (DD; Arabian region; 1-43.)
- x *1989a Preen, A. (DD; Arabian region; 1-200.)
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- 1990 Osborn, R.G. (TML; Florida; Geogr. Information Systems applications)
- *1990 Reynolds & Haddad (TML; Florida; Geogr. Information Systems Workshop)
- x 1990 Smith & Marsh (DD; Queensland; management of traditional hunting; 47-55.)
- x 1990a Turner, R.O. (TML; Florida; new sanctuary established; 10.)
- x 1990b Turner, R.O. (TML; Florida; legislation; 7.)
- 1990 Weigle & Haddad (TML; Florida; Geogr. Information Systems applications)
- x 1991b Anon. (TMM, TI; Brazil; 221.)
- 1991 Colmenero-R., L.C. (TMM; Mexico; recovery plan)
- x 1991c Domning, D.P. (*Trichechus*; justifications; 167-173.)
- x 1991 O'Shea & Salisbury (TMM; Belize; 160-163.)
- 1991 Vallee, J.D. (TML; Florida)
- x 1992a Anon. (Save the Manatee Club-Florida Audubon controversy; 89.)
- x 1992 Borobia & Lodi (TMM; northeastern Brazil; 40-42.)

- x 1992 Marmontel et al. (TM, TI; implications of reproductive biology; 308-309.)
1992b Pinto de Lima et al. (TMM; Brazil)
- x 1992 Shackley, M. (TML; Florida; effects of tourism; 257-265.)
- x 1993a Anon. (DD; India; m42.)
1993 Smith, K.N. (TML; Florida; threats to seagrass habitats)
- x 1993 Turner & Buckingham (TML; Georgia; manatee protection plan for Naval Submarine Base; 1, 10-11.)
1993 Ward & Weigle (TML; Florida; GIS applications)
- x 1993 Yokel, B.J. (Florida; settlement of Florida Audubon Soc.-Save the Manatee Committee lawsuit; 2, 19.)
- D Cornwalliidae Shikama, 1957 (family)
D 1957a Shikama, T.
D 1957b Shikama, T.
xD 1986 Domning et al. (history of name; 5.)
- D *Cornwallius* Hay, 1923
xD*1923a Hay, O.P. (n.gen.; 106-107.)
xD 1931 Kellogg, R. (review; 221-223.)
xD 1941 Kretzoi, M. (in classification; 153, 155, pl. 6.)
xD 1941b VanderHoof, V.L. (Baja California; Olig.; 1985.)
xD 1945 Simpson, G.G. (in classification; 136.)
D 1953 Arai, J.
D 1957 Pronina, I.G.
xD 1959 Byers, F.M. (Unalaska Is., Alaska; 289.)
xD*1961 Drewes et al. (Unalaska Is., Alaska; Olig. or Mioc.; 606-607, 667.)
xD*1963 Mitchell & Repenning (chronologic & geographic range; 3-4, 10-12, 15-16.)
xD 1963 Mitchell, E.D., Jr. (comp. w/ *Paleoparadoxia*; 192, 194, 197-199.)
D 1964 Allison, E.C.
xD 1964 Mitchell, E.D., Jr. (pachyostosis; 214.)
xD 1964 Nolan, T.B. (distr.; A137.)
xD 1965 Mitchell & Lipps (photo of femur; 5.)
D 1966c Shikama, T.
xD 1968 Romer, A.S. (m200.)
xD 1970a Reinhart, R.H. (m243.)
xD 1972a Domning, D.P. (distr.; 146, 149.)
xD 1972 Gard et al. (Aleutian Islands; m867-868.)
xD 1975 Reinhart, R.H. (validity reasserted; 826.)
xD 1978b Domning, D.P. (m107, 113, 139.)
xD 1982 Kleinschmidt, A. (m378-380.)
- D *Cornwallius sookensis* (Cornwall, 1922) Hay, 1923
xD 1917 Kermode, F. ("*Desmostylus hesperus*"; Vancouver Is., Canada; 42-43, pl. 9.)
xD*1923a Hay, O.P. (n.comb.; 106.)
xD*1924 Hay, O.P. (teeth; 3-8, pls. 1-2.)
- xD 1931 Kellogg, R. (synonymy; 223.)
xD*1942a VanderHoof, V.L. (Baja California; Olig.; 298-301.)
D 1957 Pronina, I.G.
xD*1963 Mitchell & Repenning (chronologic & geographic range; 10-11.)
xD 1963 Mitchell, E.D., Jr. (teeth; 194, 199.)
xD 1966 Mitchell, E.D., Jr. (m50.)
D 1966c Shikama, T.
xD 1982 Reinhart, R.H. (diagnosis & illustration of skull; 550-554.)
xD 1986 Domning et al. (classification & affinities; 5, 23, 26, 36, 45.)
xD 1991 Clark, J.M. (comp. w/ *Paleoparadoxia weltoni*; 490-496, 502-505.)
xD 1993 McAnally, L.M. (British Columbia; discovery & theft of type material; 8-9.)
- D *Cornwallius tabatai* Tokunaga, 1939 (= *Paleoparadoxia tabatai*)
D *1939 Tokunaga, S.
D 1966c Shikama, T.
xD 1986 Domning et al. (m5.)
xD 1991 Clark, J.M. (syn. of *Paleoparadoxia tabatai*; m490, 494.)
- Corystosiren* Domning, 1990
x *1990b Domning, D.P. (n.gen.; Plioc., Mexico & Florida; 361.)
x 1991 Domning & de Buffrénil (pachyosteosclerosis; 361, 363.)
- Corystosiren varguezi* Domning, 1990
x *1990b Domning, D.P. (n.gen.n.sp.; Plioc., Mexico & Florida; 361-371.)
x 1991 Toledo & Domning (comp. w/ *Dioplotherium* cf. *allisoni*, 124; comp. w/ cf. *Rytiodus*, 133, 135.)
x 1992 Hulbert, R.C., Jr. (Florida; in checklist; 29.)
- Costa Rica (SEE ALSO: Central America)
1869 Frantzius, A.v. (TMM; 304.)
1881 Frantzius, A.v. (TMM; 423.)
1897 Alfaro G., A.
x 1946b Goodwin, G.G. (TMM; m445.)
1983 Ligon, S.H. (TMM)
x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 583, 607.)
- Crassitherium* Van Beneden, 1871 (= *Halitherium*, in part; ?Reptilia, in part)
*1871 Van Beneden, P.J. (n.gen.)
x 1872a Gill, T. (in classification; 92.)
x 1875 Van Beneden, P.J. (mention of juvenile specimen; 339.)

- x 1886b Hartlaub, C. (m369–370, 376.)
 x 1887 Flot, L. (considered ancestor of *Rhytina*; 136, 138.)
 x 1889 Lefèvre, T. (in Belgian sir. fauna; 198, 200.)
 x 1891 Flower & Lydekker (m223.)
 x 1932a Simpson, G.G. (m481.)
 *1934b Sickenberg, O.
 x 1941 Kretzoi, M. (m150; in classification, 154–155.)
- Crassitherium robustum* Van Beneden, 1871 (= *Halitherium schinzii*, in part; ?Reptilia, in part)
 *1871 Van Beneden, P.J. (n.gen.n.sp.)
 1872 Gervais, P.
 x 1874 Flower, W.H. (m6.)
 x 1875a Owen, R. (age considered Lower Mioc.; 104.)
 x 1885a Woodward, H. (m470.)
 x 1887 Flot, L. (in review; 136.)
 *1934b Sickenberg, O.
- Crenatosiren* Domning, 1991
 xv 1974 Domning, D.P. (“new species of *Halitherium*”; m8.)
 x *1991b Domning, D.P. (n.gen.; 398.)
- Crenatosiren olseni* (Reinhart, 1976) Domning, 1991
 x *1991b Domning, D.P. (n.comb.; 398.)
 x 1992 Hulbert, R.C., Jr. (Florida; in checklist; 29, 33.)
- D *Cryptomastodon* von Koenigswald, 1933 (Proboscidea)
 D *1933 Koenigswald, G.H.R.v. (n.gen.; Java)
 xD 1952 Koenigswald, G.H.R.v. (sir. affinities denied; 612.)
 D 1976 Reinhart, R.H. (not desmostylian; 282–283.)
 xD 1982 Reinhart, R.H. (not desmostylian; m553.)
 xD *1984 Hooijer, D.A. (shown to be chimerical; 228–231.)
- D *Cryptomastodon martini* von Koenigswald, 1933 (Proboscidea)
 D *1933 Koenigswald, G.H.R.v. (n.gen.n.sp.; Java)
 D 1966c Shikama, T.
 xD *1984 Hooijer, D.A. (shown to be chimerical; 228–231.)
- Cuba
 1671 Ogilby, J.
 1866 Gundlach, J.
 1877 Gundlach, J.
 x 1895 Gundlach, J. (*Manatus*; m20.)
 x 1898 Hill, R.T. (TM; m56.)
 1910 Cufí y Valera, L.A.
 x 1917 Holland, W.J. (TM; Isle of Pines; 356.)
 x 1918 Cufí y Valera, L.A. (TM; gen. acc.; 93–95.)
 x 1920 Goldman, E.A. (TM; 69.)
 x 1936 Trelles-Duelo, L. (indeterminate sir.; Olig.; 269–270.)
 x 1942 Morison, S.E. (TMM; caught with remoras in 1494, 457; using freshwater springs in Gulf of Cochinos, 459.)
- x *1972 Varona, L.S. (*Metaxytherium riveroi*, n.sp.; M. Mioc.; 5–19.)
 x 1977 Van Bree & Duguy (TM; 292.)
 x 1984 Cornide, R.I. (TM; blood antibodies; 1.)
 *1986 Sokolov, V.E. (TM; anatomy)
 x *1987 Estrada & Ferrer (TM; western Cuba; distr. & status; 1–12.)
 1988 Ferrer & Estrada (TM; mortality)
 1989 Coy Otero, A. (TM; trematode *Chiorchis groschafii*)
 x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 575–576, 602.)
 x 1992 Ortiz et al. (TMM; copepod *Harpactichechus manatorum* & peritrichid protozoan; 117–119.)
- Cymatotherium* Kaup, 1841 (Proboscidea)
 *1841 Kaup, J.J. (n.gen.; Germany; 11–14, pl. 4.)
 x 1932a Simpson, G.G. (“*Cyotherium*”; m481.)
- Cymatotherium antiquum* Kaup, 1841 (Proboscidea)
 *1841 Kaup, J.J. (n.gen.n.sp.; Germany; 11–14, pl. 4.)
- Cyotherium* Simpson, 1932: SEE *Cymatotherium*
- Cytology: SEE Genetics; Histology
- Defecation: SEE Excretion and Defecation
- Deinotherium* Kaup, 1829 (Proboscidea)
 1837a Blainville, H.M. de
 1837b Blainville, H.M. de
 1837 Duméril, A.M.C.
 1837 Kaup, J.J.
 x 1837 Robert, C. (“*Dinotherium*”; m471.)
 1837 Saint-Hilaire, I.G.
 1837 Strauss
 x 1875 Wilder, B.G. (opinions on affinities; 111.)
- D Desmodontia Kishida, 1933 (suborder; = Desmostylia)
 D *1933 Kishida, K. (new suborder; proposed as subdivision of Multituberculata)
- D *Desmostylella* Nagao, 1937 (= *Desmostylus*)
 xD *1937b Nagao, T. (n.gen.; 82–85.)
 xD 1963 Mitchell & Repenning (syn. of *Desmostylus*; m4.)
 D 1966c Shikama, T. (syn. of *Desmostylus*)
 xD 1991 Clark, J.M. (syn. of *Desmostylus*; m493.)
- D *Desmostylella typica* Nagao, 1937 (= *Desmostylus hesperus*)
 xD *1937b Nagao, T. (n.gen.n.sp.; 82–85.)
 xD 1961 Hanzawa et al. (type specimen; 355.)
 D 1966c Shikama, T.
- D Desmostylia Reinhart, 1953 (order)

- xDv 1949b Anon. (Coalinga, California; skeleton; 313.)
 xD *1953 Reinhart, R.H. (new order; 187.)
 xD 1964 Mitchell & Lipps (San Clemente Is., California; 214–215.)
 xD 1970a Reinhart, R.H. (gen. acc.; 243.)
 xD 1977b Domning, D.P. (paleoecology; 356–357, 360–361.)
- D Desmostylidae Osborn, 1905 (family)
 D *1905a Osborn, H.F. (n.fam.)
 xD *1915 Hay, O.P. (name again proposed; 385.)
 xD 1928a Khomenko, J. (supposed Mioc.-Quaternary evolution; 519–520.)
 xD 1932c Simpson, G.G. (in classification; 282.)
 D 1937 VanderHoof, V.L.
 xD 1941 Kretzoi, M. (in classification; 155, pl. 6.)
 xD 1945 Simpson, G.G. (in classification; 136.)
 xD 1986 Domning et al. (history of name; 5.)
- D Desmostyliiformes Hay, 1923 (suborder; = Desmostylia)
 xD *1923a Hay, O.P. (new suborder; 109.)
 xD 1924 Hay, O.P. (diagnosis; 7–8.)
 xD 1932c Simpson, G.G. (in classification; 282.)
 xD 1941 Kretzoi, M. (in classification; 155.)
 xD 1945 Simpson, G.G. (in classification; 136.)
 xD 1982 Kleinschmidt, A. (in classification; 378–380.)
- D Desmostyloidea Abel, 1933 (order; = Desmostylia)
 D *1933 Abel, O. (new order; proposed as subdivision of Multituberculata; 875–876.)
 xD 1986 Domning et al. (syn. of Desmostylia; 34.)
- D *Desmostylus* Marsh, 1888
 xDv 1877 Yates, L.G. (Alameda Co., California; first published description; 78–79.)
 xD *1888 Marsh, O.C. (n.gen.; Alameda Co., California; 94–96.)
 xD 1891 Flower & Lydekker ("*Desmotylus*"; in Halicoridae; m223.)
 xD 1906 Merriam, J.C. (occurrences; 151–152.)
 D 1911 Anderson, F.M.
 xD *1911 Merriam, J.C. (summary of knowledge; 403–412.)
 xD *1915 Hay, O.P. (history of study, 381–383; described & comp. w/sirs., 383–397.)
 xD 1916a Matthew, W.D. (m27.)
 D 1922 Abel, O.
 xD 1922 Hannibal, H. (brief review; 238–240, pls. 11–12.)
 D 1923 Abel, O.
 xD 1923a Hay, O.P. (review; 105–109.)
 xD 1924 Hay, O.P. (?Alaska, 1; teeth, 1–8, pl. 1.)
 D 1924 Winge, H.
 xDv 1925 Hanna, G.D. ("sirenians"; Sharktooth Hill, California; 72.)
 D 1926 Abel, O.
 xDv 1926 Anon. ("sea-cow"; Sharktooth Hill, California; 12.)
- D 1927 Honda, A.
 D 1927 Sone, H.
 D 1928 Anon.
 xD 1928a Khomenko, J. (supposed Quaternary occurrence; 519–520.)
 xD 1929b Simpson, G.G. (teeth; not a monotreme; 12–13.)
 xDv 1930 Hanna, G.D. ("sea cows"; Sharktooth Hill, California; 70.)
 xD *1931 Kellogg, R. (review; 219–227.)
 xD 1932a Simpson, G.G. (m422, 425, 488, 495.)
 xD 1932c Simpson, G.G. (not a multituberculate or monotreme; m292.)
 xD 1933 Hanna, G.D. (Monterey Bay, California; 291.)
 xD 1937b Nagao, T. (comp. w/ *Desmostylella*; 82–85.)
 xD 1937c Nagao, T. (Japanese specimens; 110–113.)
 D *1937 VanderHoof, V.L.
 xD 1939c Ijiri, S. (tooth structure, 135–138; affinities, 138.)
 xD 1940 Camp, C.L. (Marsh's acquisition of type tooth; 645.)
 xD 1941 Kretzoi, M. (in classification [with sirs.]; 153, 155, pl. 6.)
 xD 1942a VanderHoof, V.L. (m299, 301.)
 xD 1943 Heuvelmans, B. (comp. w/ proboscideans; m12.)
 xD 1944 Stenzel & Turner ("?*Desmostylus*"; supposed occurrence in Texas; 289.)
 xD 1945 Simpson, G.G. (in classification; 136, 168, 251–252.)
 xD 1951 DEREK ("*Desmostylus*" [really *Izumi Paleoparadoxia*]; Japan; discovery & collection; 414.)
 xD 1952 DEREK (Japan; further collecting at locality of Togari skull; 144.)
 D 1953 Fujii, H.
 xD 1953 Langston, W., Jr. (supposed find in California [actually of a cetacean]; pop. acc.; 8–9.)
 D 1954 Sera, G.L.
 D 1957 Pronina, I.G.
 xDv 1958 Floyd et al. (supposed occurrence in Texas; 160–161.)
 xD 1961 Drewes et al. (m606–607.)
 xD *1963 Camp, C.L. (discovery & type locality; 387–389.)
 xD *1963 Mitchell & Repenning (chronologic & geographic range; 3–16.)
 xD 1963 Mitchell, E.D., Jr. (comp. w/ *Paleoparadoxia*; 192, 194, 197–198.)
 xD 1964 Mitchell, E.D., Jr. (pachyostosis; 214.)
 xD 1964 Nolan, T.B. (distr.; A137.)
 xD 1965 Mitchell & Lipps (photo of femur; 5.)
 xD 1966 Mitchell, E.D., Jr. (gen. acc.; 50, 53, 56–57, 59.)
 D 1966a Shikama, T.
 D 1966c Shikama, T.
 D 1967 Addicott, W.O.
 xD 1968 Romer, A.S. (m200.)
 xD 1970 Minch et al. (Baja California; 3152.)
 xD 1970a Reinhart, R.H. (m243.)
 xD 1970 Zuidema, H.P. (pop. acc.; 22–24.)

- D 1971 Iwata & Uozumi
 xD 1972 Barnes, L.G. (Mioc., California; 140-142.)
 xD 1972a Domning, D.P. (distr.; 146, 149.)
 D 1972 Hasegawa, U.
 D 1974 Kozawa, Y.
 xD 1975 Edinger, T. (cranial endocast; 50.)
 xD 1975 Reinhart, R.H. (synonymy of American & Japanese forms uncertain; 826.)
 xD 1976 Phillips et al. (Skooner Gulch Formation, ?Olig., California; 137-152.)
 D 1976 Scheffer, V.B.
 xD 1977 Hasegawa, Y. (artists' reconstructions; pop. acc.; 90-91.)
 xD 1978b Domning, D.P. (?competition w/ sirs., 113-115; Mioc., California, 150-151, 156.)
 D 1978 Kimura et al.
 D 1978 Kimura, M.
 D 1978 Kimura, Sato & Goto
 D 1979 Kimura & Takaku
 xD 1980 Parker & Toots (sodium content of tooth enamel; 205.)
 D 1981c Inuzuka, N.
 D 1981 Yamaguchi et al.
 xD 1982 Kleinschmidt, A. (m378-380.)
 xD 1982 Reinhart, R.H. (new material reported; 551-554.)
 Dv 1984a Inuzuka, N. (reconstruction of skeleton & body form; 1-146.)
 D 1984 Kamei, T.
 xD 1984 Raschke, R.E. (Middle Mioc., California; m64.)
 D 1985 Sinel'nikova et al. (Kamchatka)
 D 1988d Inuzuka, N. (body weight)
 D 1989 Bol, J. ("*Dysmostylus*")
 xD 1989a Domning, D.P. (?feeding on seagrass rhizomes; m54.)
 D 1989a Inuzuka, N.
 D 1990 Oishi et al. (Kintaichi, Japan)
 D 1992 Sakae, T. (enamel mineralogy)
 xD 1992 Thewissen & Domning (character states; 502.)
- D *Desmostylus brevimaxillaris* (Pronina, 1957) Reinhart, 1982 (= *Desmostylus hesperus*)
 xD *1982 Reinhart, R.H. ("*D. brevimaxillare*"; n.comb.; 551, 553.)
- D *Desmostylus californicus* Hay, 1923 (= *Desmostylus hesperus*)
 xD *1923a Hay, O.P. (n.sp.; 105-106.)
 xD 1931 Kellogg, R. (synonymy; 223-224.)
 xD 1937a Nagao, T. (m49.)
- D *Desmostylus cymatias* Hannibal, 1922 (= *Desmostylus hesperus*)
 xD *1922 Hannibal, H. (n.sp.; 239-240, pl. 11.)
 xD *1923a Hay, O.P. (validity questioned; 105-106.)
- xD 1931 Kellogg, R. (synonymy; 222-223, 226.)
 xD 1991 Clark, J.M. (syn. of *D. hesperus*; m492.)
- D *Desmostylus hesperus* Marsh, 1888
 xD *1888 Marsh, O.C. (n.gen.n.sp.; Alameda Co., California; 94-96.)
 xD 1902a Osborn, H.F. (comp. w/ Japanese *Desmostylus*; 713-714.)
 D 1915 Aoki, R.
 xD *1915 Hay, O.P. (comp. w/ Japanese *Desmostylus*; 383-397, pls. 56-58.)
 xD 1917 Kermode, F. ("*Desmostylus hesperus*" [really *Cornwallius*]; Vancouver Is., Canada; 42-43, pl. 9.)
 xD 1922 Cornwall, I.E. (m122.)
 xD 1922 Hannibal, H. (review; 238-240, pl. 12.)
 xD 1923a Hay, O.P. (comp. w/ other *Desmostylus*; 105-108.)
 xD 1924 Andrews, C.W. (dentition; 308.)
 xD 1924 Hay, O.P. (teeth, m5; skull, 7-8, pl. 1.)
 xD 1927 Pfitzenmayer, E.W. (m495.)
 xD 1931 Kellogg, R. (synonymy & tooth morphology; 223-227.)
 xD 1937a Nagao, T. (m47, 49.)
 xD 1950 Shotwell, J.A. (Mioc., Oregon; 1541.)
 D 1959 Reinhart, R.H.
 xD *1963 Mitchell & Repenning (chronologic & geographic range; 5-8, 11.)
 xD 1965 Mitchell, E.D., Jr. (Sharktooth Hill, California; iii, 3, 7, 21, 26-29, 36.)
 D 1966c Shikama, T.
 xD 1971 Dubrovo & Sinel'nikova (Kamchatka & elsewhere; 670-673.)
 D 1976 Reinhart, R.H.
 xD 1981 Clark, J.C. (Santa Cruz, California; 27-28.)
 xD 1982 Reinhart, R.H. (new material reported; 551-554.)
 xD 1985 Fortelius, M. (tooth enamel; 57.)
 xD *1986 Domning et al. (comp. w/ *Behemotops*, 19-20; history of study, 33-37; phylogeny & affinities, 36-38, 45; paleoecology, 47-48.)
 D 1989c Inuzuka, N.
 xD 1990 Aranda-Manteca, F.J. ("*Desmostilus* cf. *D. hesperus*"; Mioc., Baja California; 104, 111.)
 xD 1990 Ferrusquia-V., I. (Baja California; Mioc.; 15, 22-26.)
 xD 1991 Clark, J.M. (comp. w/ *Paleoparadoxia weltoni*; 490-497, 500-507.)
- D *Desmostylus hesperus hesperus* (Marsh, 1888) Shikama, 1966
 D 1966c Shikama, T.
 D *Desmostylus hesperus japonicus* (Tokunaga and Iwasaki, 1914) Shikama, 1966
 D 1966a Shikama, T.

- D 1966c Shikama, T.
 xD 1982 Reinhart, R.H. (validity uncertain; 553-554.)
- D *Desmostylus japonicus* Tokunaga and Iwasaki, 1914 (= *Desmostylus hesperus*)
 xDv 1902 Yoshiwara & Iwasaki (Togari, Japan; original report; 1-13, pls. 1-3.)
 D *1914 Tokunaga & Iwasaki (n.sp.)
 xD 1924 Andrews, C.W. (dentition; m308.)
 xD 1927 Pfizenmayer, E.W. (m495.)
 xD 1931 Kellogg, R. (synonymy; 222, 225-226.)
 D 1937a Ijiri, S.
 D 1937b Ijiri, S.
 D 1937c Ijiri, S.
 xD 1937a Nagao, T. (m49.)
 xD 1937b Nagao, T. (comp. w/ *Desmostylella*; 83-85.)
 xD 1937c Nagao, T. (m113.)
 D 1938a Ijiri, S.
 D 1938b Ijiri, S.
 D 1939a Ijiri, S.
 D 1939b Ijiri, S.
 xD 1939c Ijiri, S. (tooth structure; 135-138.)
 D 1939 Takai, F.
 D 1944 Takai, F.
 xD 1961 Hanzawa et al. (type specimen; 355.)
 xD 1963 Mitchell & Repenning (m12.)
 D 1966a Shikama, T.
 D 1966c Shikama, T.
 xD 1970 Zuidema, H.P. (m22.)
 xD 1971 Dubrovo & Sinel'nikova (syn. of *D. hesperus*; 671-673.)
 xD*1972 Ikebe et al. (Japan; stratigraphic range; 44-45, 47-48, 65-66.)
 xD 1973 Shikama et al. (Japan; stratigraphic range; 138, 140-141.)
 xD 1977 Kamei & Okazaki (range Middle-Late Mioc.; 354.)
 xD 1985 Fortelius, M. (tooth enamel; 57.)
 D 1988c Inuzuka, N. (dentition of holotype)
 D 1992 Kaneko & Inuzuka (Japan)
- D *Desmostylus minor* Nagao, 1937 (= *Desmostylus hesperus*)
 xD*1937a Nagao, T. (n.sp.; 46-49.)
 xD 1937c Nagao, T. (referred specimen; 110-113.)
 xD 1961 Hanzawa et al. (type specimen; 355.)
 D 1966c Shikama, T.
 xD 1971 Dubrovo & Sinel'nikova (syn. of *D. hesperus*; 671-672.)
- D *Desmostylus mirabilis* Nagao, 1935 (= *Desmostylus hesperus*)
 D *1935b Nagao, T. (n.sp.)
 xD 1937a Nagao, T. (comp. w/ *D. minor*; 47-49.)
 xD 1937b Nagao, T. (m85.)
- xD 1937c Nagao, T. (comp. w/ *D. minor*; 111-113.)
 xD 1961 Hanzawa et al. (type specimen; 355.)
 D *1961 Ijiri & Kamei (skull)
 D 1966a Shikama, T.
 D 1966c Shikama, T.
 xD 1971 Dubrovo & Sinel'nikova (syn. of *D. hesperus*; 671-673.)
 D *1980a Inuzuka, N. (redescription)
 D *1980b Inuzuka, N. (redescription)
 D *1981a Inuzuka, N. (redescription)
 D *1981b Inuzuka, N. (redescription)
 D *1982 Inuzuka, N. (redescription)
 xD 1991 Clark, J.M. (syn. of *D. hesperus*; m492.)
- D *Desmostylus sookensis* Cornwall, 1922 (= *Cornwallius sookensis*)
 xD*1922 Cornwall, I.E. (n.sp.; Late Olig., Vancouver Is., Canada; 122.)
 D 1922 Woodward, A.S.
 D 1923 Clark & Arnold
 xD*1923a Hay, O.P. (referred to *Cornwallius*, n.gen.; 106-107.)
 xD 1924 Hay, O.P. (teeth; 3-5.)
 xD 1931 Kellogg, R. (syn. of *Cornwallius sookensis*; 223.)
 xD 1935 LaMotte, R.S. (associated with flora; 51-52.)
 D 1957 Pronina, I.G.
 xD 1991 Clark, J.M. (syn. of *Cornwallius sookensis*; m490.)
- D *Desmostylus watasei* Hay, 1915 (= *Desmostylus hesperus*)
 xD*1915 Hay, O.P. (n.sp.; 396-397.)
 xD 1922 Cornwall, I.E. (m122.)
 xD 1922 Hannibal, H. (comp. w/ American species; 239-240.)
 xD 1931 Kellogg, R. (syn. of *D. japonicus*; 225.)
 D 1966c Shikama, T.
- D *Desmostylus wollosoiwitschi* Pfizenmayer, 1927 (Proboscidea; = *Mammuthus*)
 xD*1927 Pfizenmayer, E.W. (n.sp.; New Siberian Islands, Russia; 492-496.)
- Digestive System (SEE ALSO: Excretion and Defecation; Food; Mastication; Parasites; Parasitology; Sense Organs)
 x *1820b Home, E. (DD; 316-318, pls. 26-27.)
 x 1820 Raffles, T.S. (DD; 177.)
 x 1821b Home, E. (*Trichechus* comp. w/ DD; 391, pls. 28-29.)
 x 1834 Rüppell, E. (DD; mouth & abdominal viscera; 103-106, pl. 6.)
 x *1838 Owen, R. (DD & other sirs.; 29-34.)
 x 1847 Bischoff, T.L.W. (DD; tongue & hyoid; 3-6, pl. 1.)
 x 1855 Gervais, P. (TI; small intestine 10.25 m long; m114.)
 1857 Leydig, W.

- x 1857 Rapp, W.v. (TM; tongue, tonsils, hyoid, esophagus, stomach, intestines; 88–89, 93–96, pl. 3.)
- 1861 Möbius, K. (TMM; rostral pads)
- x *1872a Murie, J. (TMM; 164–175.)
- x 1875 Chapman, H.C. (TMM; 456–457, 460–461.)
- x 1886 Waldeyer, W. (*Trichechus*; pharynx; 245–246, 248.)
- x 1890 Pilliet, A.H. (*Trichechus*; stomach; 450–453.)
- x *1892 Waldeyer, W. (*Trichechus*; stomach & intestine; histology; 79–85.)
- 1895 Pilliet & Boulart
- x *1897 Beddard, F.E. (TI, TM; 47–50.)
- x *1899 Steller, G.W. (HG; 185–187, 190–192, 194.)
- x 1905 Mitchell, P.C. (TI; intestine; 464–465, 516, 523, 525, 530, 533.)
- *1908a Gudernatsch, J.F.
- *1909 Gudernatsch, J.F.
- x 1919 Anon. (TI; “two distinct stomachs”; 46.)
- x 1922 Sonntag, C.F. (sir. tongues; 646–647, 654–655.)
- x 1923 Kostanecki, K. (TI; cecum; 273–276.)
- 1940 Thomson, S.C.
- x 1948 Bessac & Villiers (TS; believed to have an abdominal sac containing swallowed pebbles; 189.)
- x 1953 Clark, E. (DD; Red Sea; m224, 1 pl.)
- x 1953 Quiring & Harlan (TM; abdominal viscera; 194, 202.)
- x 1954 Cruz & Fernand (DD; parasites; 499–507.)
- 1956 Meinertz, T. (DD; stomach)
- x 1957 Gohar, H.A.F. (DD; anus, 10; rostral pads & palate, 14, 16–23; tongue, 24–29.)
- x 1959 Jones, S. (DD; India; stomach & contents; 200.)
- x 1968a Bertram & Bertram (DD; 388–389, 393.)
- x *1968 Lemire, M. (TS, DD; 475–520, pls. 25–28.)
- x 1969 Caldwell et al. (DD; gall bladder, liver, & bile; 437–441.)
- 1971 Bradley, R.M. (tongue)
- x *1972 Kenchington, R.A. (DD; stomach & intestine; 884–887.)
- 1972 Ota, Y.
- x 1975 Spain & Heinsohn (DD; intestine; allometry; 162–163, 165–166.)
- x 1976 Allen et al. (DD; gastrointestinal tract; 43–44, 46.)
- 1976 Eisentraut, M. (palatal ridges)
- x 1976 Lipkin, Y. (DD; Red Sea; digestive tract contents; 86–88, 94, 96.)
- x *1977 Marsh et al. (DD; stomach & duodenum; 271–295.)
- x *1977 Murray et al. (DD; hindgut & digestion; 7–10.)
- 1978 Hintz et al.
- x 1978 Marsh et al. (DD; composition of intestinal gas, 162; review of digestive physiology, 162–163.)
- 1980 Yamasaki et al. (tongue)
- x 1981 Best, R.C. (review of sir. digestive anatomy & physiology; 4–6, 11, 17–18, 21, 23–24.)
- x 1981 Elliott et al. (DD; intestine & kidney; salmonellosis; 203–206.)
- x 1981 Murray, R.M. (DD; volatile fatty acids in digestion; 166.)
- x 1981 Odell et al. (TM; liver & pancreas weights; 54–56, 58–60, 63.)
- 1981d Reynolds, J.E., III (TM)
- x 1981 Yamasaki et al. (DD; tongue; 182–191.)
- x *1982 Reynolds & Krause (TM; duodenum; 33–40.)
- 1984 Eisentraut, M.
- x 1984 Lomolino & Ewel (TM; digestive efficiencies; 176–179.)
- x 1984 Marsh & Eisentraut (DD; palatal ridges; 314–315.)
- x *1984 Snipes, R.L. (TM; cecum; 67–78.)
- x *1986 Burn, D.M. (TM; digestion & digestive efficiency; 139–142.)
- 1986 Kalashnikova & Kazanskaya (TM; liver cells)
- 1986 Naumova, E.I. (TM)
- x 1987 Colares & Ferreira (TI; intestine blocked by polyp; 39.)
- x 1988 Kuroki et al. (TML; gallbladder bile salts; 509–522.)
- *1988 Langer, P. (stomach)
- x 1991 Chow, B.A. (TM; pop. acc.; 36.)
- Diopia Rafinesque, 1815 (family; = Sirenia)
- x *1815 Rafinesque, C.S. (n.fam.; 60.)
- Dioplotherium* Cope, 1883
- x *1883a Cope, E.D. (n.gen.; 52–54.)
- x 1891 Flower & Lydekker (considered incertae sedis; 223.)
- x 1941 Kretzoi, M. (in classification; 154–155.)
- x 1945 Simpson, G.G. (in classification; 135.)
- x 1974 Domning, D.P. (m8.)
- x 1982 Domning, Morgan & Ray (m62.)
- x 1988 Estes & Steinberg (?feeding on North Pacific seagrasses; 21.)
- x 1989 Toledo, P.M. de (comp. w/ “*Sirenotherium*”; 8–9.)
- x 1990a Domning, D.P. (rhizivory experiments with model tusks; 35–36.)
- x 1990b Domning, D.P. (comp. w/ *Corystosiren varguezii*; 362, 369.)
- Dioplotherium allisoni* (Kilmer, 1965) Domning, 1978
- x *1978b Domning, D.P. (n.comb.; Mioc., California & Baja California; 2, 4–12, 14, 16, 74, 101–104, 107–108, 113–114, 116–118, 120, 125, 140, 143–144, 146–147, 150.)
- x 1980 Haley, D. (pop. acc.; 7.)
- x 1982b Domning, D.P. (incipient root hypsodonty; 614.)
- x 1984 Raschke, R.E. (Middle Mioc., California; m64.)
- x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 272–273.)

- x 1987a Domning, D.P. (pop. acc.; 66, 69–70.)
- x 1989c Domning, D.P. (comp. w/ *Dioplotherium manigaulti*; 417–418, 423–426.)
- x 1989d Domning, D.P. (comp. w/ *Xenosiren yucateca*; 435.)
- x 1989 Toledo, P.M. de (comp. w/ "*Sirenotherium pirabense*"; 9.)
- x 1990 MacPhee & Wyss (comp. w/ *Metaxytherium cf. calvertense*; 25.)
- x *1991 Toledo & Domning (*D. cf. allisoni*; Early Mioc., Brazil; 120–130, 133–141, 143–145.)
- Dioplotherium manigaulti* Cope, 1883
- x *1883a Cope, E.D. (n.gen.n.sp.; South Carolina; 52–54.)
- x 1883b Cope, E.D. (abstract of 1883a; 309.)
- x 1885a Woodward, H. ("*Diplotherium*"; m470.)
- xv 1886 Manigault, G.E. (discovery of type specimen; 91–92.)
- x 1923a Allen, G.M. ("*Diplotherium*"; 231–232.)
- x *1925 Kellogg, R. (referred to *Metaxytherium*; 59.)
- x *1926 Allen, G.M. (review; 458–459, pls. 2–3.)
- x 1932a Simpson, G.G. (referred to *Metaxytherium*; 421, 445.)
- x *1966 Kellogg, R. (m78; review, 91–92.)
- x 1978b Domning, D.P. (comp. w/ *D. allisoni*; 5, 11.)
- x 1989b Domning, D.P. (Mioc., Suwannee R., Florida; 55–56, 59.)
- x *1989c Domning, D.P. (revision; 415–428.)
- x 1989d Domning, D.P. (comp. w/ *Xenosiren yucateca*; 429–431, 434–436.)
- x 1989 Morgan, G.S. (Mioc., Suwannee R., Florida; 29, 32, 39, 43, 46.)
- x 1991 Toledo & Domning (comp. w/ *Dioplotherium cf. allisoni*; 122–130.)
- x 1992 Hulbert, R.C., Jr. (Florida; in checklist; 29.)
- Diving: SEE Respiration and Diving
- Dominican Republic
- x 1929 Miller, G.S., Jr. (TMM; archeological sites; 11–12.)
- x 1942 Morison, S.E. (TMM; Azua; caught by Columbus in 1502; 592.)
- 1978 Belitsky & Belitsky (TM; distr. & abundance)
- x 1980 Belitsky & Belitsky (TMM; 313–319.)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 574–575, 601.)
- Dugong* Lacépède, 1799
- *1799 Lacépède, B.G.E.
- 1801 Lacépède, B.G.E.
- x 1811 Illiger, C. (syn. of *Halicore*; xvii, 140.)
- x 1815 Rafinesque, C.S. (syn. of *Odobenus*; 60.)
- 1864 Dana, J.D.
- x 1895 Palmer, T.S. (priority over *Halicore*; 450.)
- x 1899 Palmer, T.S. (priority over *Halicore*; m494.)
- x 1924a Petit, G. (etymology & nomenclatural suitability of name; 124.)
- x 1930a Simpson, G.G. (pop. acc.; 41–47.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 423–424, 431–432, 435–436, 442, 453–455, 458–460, 462–463, 468, 482–490, 492, 495–499.)
- x 1941b Heuvelmans, B. (dentition comp. w/ *Trichechus*; m9.)
- x *1941c Heuvelmans, B. (dentition; 1–14.)
- x 1941 Kretzoi, M. (in classification; 154–155.)
- x 1943 Heuvelmans, B. (evolution of dentition; 4–11.)
- x 1945 Simpson, G.G. (in classification; 135.)
- x 1951 Reinhart, R.H. (m208, 210.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni* & other sirs.; 60–63, 65.)
- x *1965 Robineau, D. (ear ossicles; comp. w/ HG; 421–424.)
- x 1966 Kellogg, R. (comp. w/ *Metaxytherium*; m71.)
- 1966c Shikama, T.
- x *1966 Thomas, D. (India; natural history, hunting; 80–82.)
- x 1968b Bertram & Bertram (gen. acc.; 423–426.)
- x 1968a Kaiser, H.E. (morphology of occiput; 478.)
- x 1968 Rice & Scheffer (distr.; 5.)
- x 1977b Domning, D.P. (specialization for bottom-feeding; 353.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 2, 4–5, 7, 10, 12, 29–30, 37, 40, 51, 98, 100, 114, 116–120, 122–123, 125, 127, 130, 146.)
- x 1979 Cave, A.J.E. (pterygoid hamulus; 530–531.)
- x 1979 Tassy, P. (comp. w/ *Moeritherium*; 86.)
- 1980 Hasegawa, Y. (Ryukyu Islands)
- x 1980 Inuzuka et al. (supposed occurrence in Middle Mioc., Japan; 639–641.)
- x 1982b Domning, D.P. (diet & evolution; 610, 613–614, 616.)
- x 1982 Domning, Morgan & Ray (comp. w/ *Protosiren*, 40; rostral deflection & diet, 62.)
- x 1985 Muizon & Domning (comp. w/ indeterminate Peruvian sir.; 207–209.)
- x 1987 Bajpai et al. (comp. w/ *Metaxytherium kachchense*; 21–23.)
- x 1987 Domning & Thomas (possible sexual dimorphism in ischium; 219.)
- x 1988 Domning, D.P. (comp. w/ *Metaxytherium floridanum*; 409, 414–415.)
- x 1988 Nojima, T. (bony falx cerebri; 315, 320.)
- x 1989d Domning, D.P. (comp. w/ *Xenosiren yucateca*; 435.)
- x 1989 Maluf, N.S.R. (kidney comp. w/ TM; 282.)
- x 1992 Pledge, N. (?*Dugong*; Early Plioc., South Australia; 6.)

- Dugong australis* (Retzius, 1794) [author of combination not identified] (= *Dugong dugon*)
- x 1917 Fairchild, D. (m339.)
 1923 Mohr, E.
 1934 Frechkop, S.
- x 1941c Heuvelmans, B. (dentition; 11, 13, pl. 1.)
- x 1941 Johnston & Mawson (Australia; nematode *Dujardinia*; 432.)
- x 1943 Heuvelmans, B. (dentition; 9.)
- x 1946 Slijper, E.J. (spinal column & muscles; 47, 52, 73, 75-78, 112, 114; tabs. 1, 3, 5, 6.)
- x *1955 MacMillan, L. (Australia; 17-20.)
- x 1963 Berzin et al. ("*D. australe*"; m73.)
- x 1963 Pfeffer, P. (m149.)
- x 1971 Ginsburg & Janvier (comp. w/ *Metaxytherium medium*; 186, 188.)
- x 1975 Martin, J.H.D. (Moreton Bay & Stradbroke Is., Queensland; 74.)
- x 1982 Domning, Rice et al. (syn. of *D. dugon*; m305.)
- Dugong dugon* (Müller, 1776) Palmer, 1895
- 1660 SEE Soza de Castro, F. de, 1907.
 1684 SEE Santos, J. dos, 1814.
- xv 1773 Müller, P.L.S. ("*Trichechus manatus*"; gen. acc.; 174-175.)
 1792 SEE Aragón, F., 1951.
- xv 1798 Collins, D. (south of Botany Bay, New South Wales; 1:409.)
- xv *1809a Cuvier, G. (history of study, 273-278, 300; names, 278-280; as "mermaids," 280-281; Buffon's "lamantin," 293; Pennant's, 299; comp. w/ *Trichechus*, 300-302, pl. 19; confused with hippopotamus, 302; comp. w/ fossil sir., m306.)
- xv 1814 Santos, J. dos (Mozambique; 700-701.)
- xv 1820a Home, E. (tusks, 146-149, 153, pls. 12-14; ear region, 149-153; lower incisors, 153-154, pl. 14.)
- xv 1820b Home, E. (teeth, 315-316; viscera, 316-321, pls. 26-30; eye, 321; skeleton, 321-322, pl. 31; external morphology, pl. 25.)
- xv 1820 Raffles, T.S. (gen. acc.; 174-182.)
- xv 1821a Home, E. (Sumatra; skeleton; 268-270, pl. 20.)
- xv 1821b Home, E. (comp. w/ *Trichechus*; 390-391.)
- xv 1833 Robison, J. (preserved specimen from India; 100-101.)
- xv 1838b Kaup, J.J. (tooth formula comp. w/ *Halitherium*; 536.)
- xv *1838 Owen, R. (anatomy of viscera & skeleton; 28-45.)
- xv 1839 Owen, R. (teeth comp. w/ *Basilosaurus*; 35.)
- xv 1847 Bischoff, T.L.W. (skeleton, 2-3; throat & hyoid, 3-6, pl. 1.)
- xv 1847 Brandt, J.F. (comp. w/ HG; 47-48.)
- xv 1859 Baird, W. (Red Sea; nematode *Ascaris halichoris*; 148-149.)
- xv 1860 McGrigor-Croft, J. (medicinal uses of oil; 7166-7169.)
- xv 1860 Nordmann, A.v. (comp. w/ *Manatus maoticus*; 331, 333.)
- xv 1866 Lartet, E. (comp. w/ *Rytiodus*, 679-682, pl. 13; comp. w/ indeterminate sir., m683.)
- xv 1867 Peters, K.F. (comp. w/ *Halitherium Cordieri*; 311-313.)
- xv *1870 Adams, A. (?dugong skull found in Sakhalin; 198.)
- v 1875 Anon.
- xv 1880 Delfortrie, E. (comp. w/ *Rytiodus*; 135-139, 141.)
- xv 1884 De Vis, C.W. (comp. w/ *Chronozoon*; 394.)
- xv 1885a Woodward, H. (ear ossicles; 462.)
- xv 1890 Pilliet, A.H. (stomach; m452.)
- v 1893 Anon. (pop. acc.)
- xv 1893 Howes & Harrison (Australia; skeleton & teeth; 790.)
- x *1895 Palmer, T.S. (n.comb.; 450.)
 1896 Langkavel, R.
- xv 1897 Beddard, F.E. (kidney, m51; heart, m52.)
- xv 1897 Loyau, G.E. (Queensland; origins of fishery; 365.)
- xv 1899 Hunt, A.E. (Torres Strait; used as food; m13.)
- x 1899 Stiles & Hassall (nematode *Ascaris halicoris*; 108, 147-151, 169.)
- xv 1901 Anon. (Torres Strait; hunting; 21238-21239.)
- xv 1904 Liversidge, J.F. (analysis of oil; 211-214.)
- xv *1906b Dexler & Freund (behavior, senses, locomotion, etc.; 49-72.)
- xv *1906c Dexler & Freund (external morphology; 567-581.)
 1907 Le Souëf, W.H.D. (Australia)
- xv 1908 Anderson, R.J. (parietal bone; 547.)
- xv 1909 Anon. (Australia; econ. uses & hunting; 93.)
- xv 1912 Harris, W.K. (Australia; hunting, econ. & medicinal uses; 226-228.)
- x 1915 Seale, A. ("*D. dugong*"; Philippines; 215-217, 1 pl.)
- x 1917 Fairchild, D. (m339, 344.)
- v 1917 Marius (pop. acc.)
- xv 1919 Jay, D. (Australia; harpooning; 40-41.)
- x 1923a Allen, G.M. ("*D. dugong*"; comp. w/ *Metaxytherium floridanum*; 233-235.)
- xv 1923 Jackson, E.S. (Australia; medicinal use of oil by Dr. Wm. Hobbs; m282.)
- xv *1923 Petit, G. (Madagascar; ethnography; 75-83.)
- xv 1923 Watson, E. (oil used in China; 103.)
- xv 1925 Lee, I. (Australia; early accounts; 19-21, 482, 520, 523.)
- xv 1927b Petit, G. (Madagascar; hunting rituals; 246-250.)
- xv 1929 Prater, S.H. (Andaman Islands; carrying young; 987.)
- v 1930 Anon. (pop. acc.)
- xv 1933b Dollman, G. (Mafia Is., Tanganyika; 16-17.)
 1933 Hirasaka, K.

- xv 1933b Mortensen, T. (Rodriguez; former occurrence; 23-26.)
- xv 1934b Mortensen, T. (Rodriguez; former occurrence; 71-72, 76.)
- x 1935 Allen, G.M. ("*D. dugong*"; China; 79-81.)
- x 1935 Barrett, O.W. (East Africa; 219-220.)
- xv 1935 Sowerby, A. de C. (China; 81-82.)
- xv 1936 Moore, W.R. (Australia; m746.)
- xv 1936 Sowerby, A. de C. (China; 41-42.)
- xv 1937 Sunter, G.H. (Northern Territory, Australia; harpooning; dugong killing crocodile; 53-61.)
- xv 1938 Wood, T. (Buccaneer Archipelago, Australia; m46, m53.)
- xv 1939 Lyman, C.P. (vestigial lower incisor; 229-231.)
- x 1940 Pocock, R.I. (variation in tusks, teeth, skulls, & scapulae; 329-345.)
- xv 1947 Johnson, I. (seen in southwestern Pacific, locality unstated; 130, 143-144.)
- v 1949 Anon.
- xv 1949 Jervis, J. (Queensland; oil industry; 340.)
- xv 1949 Loveless, J.R. (Queensland; netted for oil; 8.)
- xv 1950 Mohr, E. (skin, m183-184; illustration of skull, 183.)
- xv 1951b Burton, M. (pop. acc.; 588.)
- x 1951 Crusz, H. (Sri Lanka; trematode *Indosolenorchis hirudinaceus*; 135.)
- x 1951 Fernand, V.S.V. ("*D. Dugung*"; pituitary & adrenal histology; 57-62, pls. 1-2.)
- xv 1953 Clark, E. (Red Sea; 175-176, 212, 224-225, 3 pls.)
- xv 1953 Fernand, V.S.V. (dentition; 139-147, pls. 28-30.)
- x 1954 Crusz & Fernand ("*D. dugong*"; Sri Lanka; trematodes; 499-507, 2 pls.)
- xv 1955a Anon. (Palau; in capt., San Francisco; 79.)
- xv 1955b Anon. (Palau; in capt., San Francisco; 73-74.)
- xv 1956a Anon. (Palau; in capt., San Francisco; 49.)
- x 1956 Harry, R.R. (Palau; in capt., San Francisco; 21-27.)
- x 1956 Simpson, D.A. (in capt., San Francisco; pop. acc.; 54, 57, 74.)
- x 1957 Bayer & Harry-Rofen (Palau; 502, pl. 20.)
- x 1957 Gohar, H.A.F. ("*D. dugong*"; comp. w/ Red Sea "subspecies"; 37-40, 48.)
- xv 1958 Anon. (Kenya; photos; 693, 792.)
- xv 1958 Leakey, L.S.B. (East Africa; natural history; 19-20.)
- xv 1958 Savory, B. (East Africa; 255-258.)
- x *1959 Jones, J. ("*D. dugong*"; India; in capt.; 198-202.)
- xv 1959 Spittel, R.L. (Sri Lanka; captures; 174-175.)
- 1959 Thesiger, W. (Arabia)
- x 1960 Crusz, H. ("*D. dugong*"; pop. acc.; 300-302.)
- xv 1960 Norris, C.E. (Sri Lanka; distr. & captures; 296-300.)
- xv 1960 Spittel, R.L. (Sri Lanka; sanctuary; 304-305.)
- xv 1960 Williams, J.H. (Persian Gulf & North Andaman Is.; 9-12.)
- x 1961 Dill, W.A. (m2.)
- x 1961 Jonklaas, R. ("*D. dugong*"; Sri Lanka; in capt.; 1-8.)
- xv 1961 Moore, J.C. (pop. acc.; 54-55.)
- x 1961 Santapau & Abdulali (Bombay; corrects erroneous record; 796.)
- x 1961 Silas, E.G. (India; 263-266.)
- x 1962 Marlow, B.J. (New South Wales; 433.)
- xv 1962 Sarkar & Mitra (hide & hair; 93-94, 1 pl.)
- x 1962 Tranngocloi, N. ("*D. dugong*"; Vietnam; 451-452, pl. 12.)
- 1963 Bertram, G.C.L. (gen. acc.)
- x 1963 Lal Mohan, R.S. (India; 152.)
- x 1963 Pfeffer, P. ("*D. dugong*"; Indonesia; 149-151.)
- xv 1963 Tenney & Remmers (quantitative lung morphology; 54-55.)
- 1964 Harrison & Tomlinson
- x 1964 Johnson, D.H. (Arnhem Land, Australia; skull measurements; 506-508.)
- 1964 Weiss, F.
- xv 1965 Harrison, T. (Borneo, Sabah; status; 103.)
- xv 1966a Anon. (Kenya; netting; pop. acc.; 46-49.)
- xv 1966a Bertram & Bertram (Australasia; status; 938-939.)
- xv 1966b Bertram & Bertram (gen. acc.; 211-217.)
- x 1966c Bertram & Bertram (Australia; 221-222.)
- xv 1966d Bertram & Bertram (pop. acc.; 180-184.)
- x 1966 Funaioli & Simonetta (Somali Republic; status; 317.)
- 1966 Harrison, J.L. (Singapore)
- x *1966 Jarman, P.J. (Kenya; natural history & status; 82-88.)
- 1966 Jones, S.
- x 1966a Kaiser, H.E. (body cavity arrangement & hydrostasis; 60, 64-65, 69.)
- x 1966 Kellogg, R. (comp. w/ *Metaxytherium calvertense*; 75, 77, 82, 84, 86-88.)
- xv 1966 Little, E.C.S. (Australia; proposed use in weed control; 86.)
- 1966 Serventy, V.
- x 1967 Aung, S.H. (Burma; 221.)
- x 1967 Browder, J. (m5.)
- x *1967 Jones, S. (India; 215-220.)
- x 1967 Kenny, R. ("*D. dugong*"; breathing pattern; 372-373.)
- 1967 Nishiwaki, M.
- x 1967 Oke, V.R. (Queensland; in capt.; 220-221.)
- 1968 Banfield, E.J. (Australia)
- x 1968a Bertram & Bertram (ecology & econ. use; 386, 388-390, 393-394.)
- 1968 Blackburn & Andres
- x 1968 Keith, K. (Gulf of Carpentaria, Australia; 20.)
- xv 1968 Lack, C. (Queensland; history of oil industry; 4-6.)

- x 1968 Lemire, M. ("*D. dugong*"; stomach; 476-479, 485-486, 495, 497-498, 505, 513-515.)
- 1968 Ray, G.C. (Tanzania)
- x 1968 Rice & Scheffer (distr.; 5.)
- xv 1969 Anon. (Australia; hunting banned; 90.)
- 1969 Arbocco, G.
- x 1969 Bibby, G. (Abu Dhabi; use for food; 224, 303-304, 306.)
- x 1969 Caldwell et al. (gall bladder, liver, & bile; 437-441.)
- x 1969 Curry-Lindahl, K. (protected under African Conservation Convention; 122.)
- x 1969 Deraniyagala, P.E.P. (comp. w/ *Miodugong*; 97.)
- 1969 Fisher et al.
- xv 1969 Frye & Herald (in capt., San Francisco; osteomyelitis; 1076.)
- xv 1969 Herald, E.S. (from Palau; in capt., San Francisco; 29-30.)
- x *1969 Robineau, D. ("*D. dugong*"; temporal & ear region, 3-31; intraspecific variation, 6.)
- xv 1970a Bertram & Bertram (Sri Lanka; conservation; 53-55.)
- x 1970b Bertram & Bertram (Sri Lanka; 362-364.)
- x 1970 Howes & Bamber (Kenya & Sri Lanka; 327.)
- x 1970 Scheffer, V.B. (tusk growth; 187-190.)
- x 1970 Yin, T. (Burma; 326-327.)
- xv 1971 Almeida, A. de (Timor; legends; 209, 211-212, 220.)
- xv 1971 Bertram & Bertram (Australia; pop. acc.; 146-147.)
- x 1971 Fleischer, G. (functional anatomy of ear; 351-353, 355-359.)
- x 1971 Hellwing & Steinitz (Gulf of Aqaba; 11-12.)
- xv 1971 Hoffmann, T.W. (Sri Lanka; protective legislation; m182.)
- x 1971 Hughes & Oxley-Oxland (Mozambique; status; 299-301.)
- x 1971 Jones, M.L. (in capt.; 85.)
- x *1971 Kingdon, J. (East Africa; natural history; 388-399, 431-432.)
- 1971 McCue, J.
- x 1971 Sharma & Gupta ("*D. dugong*"; India; trematode *Paracochleotrema indicum*; 285.)
- x *1972 Heinsohn & Birch ("*D. dugong*"; Australia; food; 414-422.)
- x *1972 Heinsohn, G.E. ("*D. dugong*"; Australia; natural history; 205-212.)
- x 1972 Kenchington, R.A. (digestive system; 884-887.)
- x 1972 Por, F.D. (Gulf of Aqaba; 12-13.)
- x *1972 Stoddart, D.R. (former distr., western Indian Ocean; 207-215.)
- xv 1972 Walker, K. (Queensland; netting & eating; 71, 73-74.)
- x *1973 Bertram & Bertram (distr. & status, 299-316; econ. use, 321-324; hunting & capture, 325-328, pl. 1; conservation, 330-332, 336; dugongs caught at Numbulwar, Australia, 333-335.)
- xv 1973 Cantley, R. (Australia; status & conservation; 34-35, 52.)
- 1973 Gruchet, H. (Mozambique Channel)
- x *1973 Mitchell, J. (age determination, 1-23; sexual dimorphism, 14, 16-21.)
- x 1973 Sonoda & Takemura (in capt., Japan; 2 photos; 20.)
- x 1973 Spain & Heinsohn (Australia; cyclone & feeding changes; 678-680.)
- x 1974 Bertram, G.C.L. (conservation; 7, 15-19.)
- x 1974 Fondi & Pacini (incus, comp. w/ *Metaxytherium forestii*; pl. 45.)
- x *1974 Heinsohn & Spain (Queensland; netting; sex & age ratios; effects of cyclone; 143-152.)
- x *1974 James, P.S.B.R. (India; osteological variation; 173-184.)
- 1974a MacVeigh, W.P.
- x 1974b MacVeigh, W.P. (color & possible confusion with *Neomeris*; 117.)
- x 1974 Spain & Heinsohn (Australia; cranial & mandibular allometry; 249-257.)
- x 1975 Husar, S.L. (pop. acc.; 15-18.)
- xv 1975 Kirkman, H. (Tin Can Bay, Queensland; m131.)
- *1975 Nair et al. (India)
- x *1975 Spain & Heinsohn (Queensland; size & weight allometry; 159-167.)
- x *1976 Allen et al. (Sulawesi; in capt.; general biology; 33-48.)
- x 1976b Anon. (pop. acc.; 62-63.)
- 1976e Anon. (Australia)
- 1976 Berhanu, A. (Red Sea)
- x 1976 Campbell, H.W. ("*D. dugong*"; gen. acc.; 1-2, 7-8.)
- 1976 Carp, E. (United Arab Emirates)
- x 1976 Gallagher, M.D. (Bahrain; 211.)
- x 1976 Heinsohn & Wake (Fraser Is., Queensland; habitat; 15-18.)
- x 1976 Heinsohn, Marsh & Spain (Queensland; netting technique; 117-121.)
- x 1976 Heinsohn, Spain & Anderson (Queensland; aerial surveys; 21-23.)
- 1976 Hojo, T. (Okinawa; at archaeological site)
- x 1976 Ligon, S.H. (Queensland; aerial survey; 580-582.)
- x *1976 Lipkin, Y. (Red Sea; stomach contents & feeding; 81-96.)
- x 1976 Mitchell, J. (age determination by tusk growth layers; 25-28.)
- 1976 Moore & Balzarotti (Red Sea)
- 1976 Ormond, R.F.G. (Red Sea)
- 1976 Reinhart, R.H. (incisor anomalies)
- xv 1976 Roaf, M. (Bahrain; archeol. site; 144, 149-151.)

- x 1976 Spain et al. (Australia; cranial variation; 491-497.)
x 1976 Tas'an (Indonesia; capture & captive history; 1-12.)
x 1976 Tinley et al. (Mozambique; in wildlife reserves; 346, 348, 350.)
x 1976 Whitaker, Z. (India; hunting, econ. use; 6.)
xv 1977a Anon. (South India; meat sold; 439.)
1977e Anon.
xv 1977 Bertram, G.C.L. (Abu Dhabi; exploitation; 4.)
x 1977 Blair, D. (Australia; parasitic flukes; 64.)
x *1977a Domning, D.P. (myology; 1-57.)
xv 1977 Harris & Bertram (Abu Dhabi; exploitation; 5-6.)
x 1977 Heinsohn & Marsh (Australia; pop. acc.; 106-111.)
x 1977 Heinsohn et al. (role in seagrass system; 235-248.)
xv 1977 Heinsohn, G.E. (pop. acc.; 1-5.)
xv 1977 Hooijer, D.A. (comp. w/ *Metaxytherium* cf. *medium*; 4-5.)
1977 Hussainy, H.S.H. (India)
x 1977 Jueco, N.L. (Philippines; nematode *Paradujardinia halicoris*; 257-262.)
x 1977 Ligon & Hudson (Papua New Guinea; aerial survey; 1-5.)
x *1977 Marsh et al. (stomach & duodenum; 271-295.)
x 1977 Murray et al. (Australia; digestion in hindgut; 7-10.)
x 1977 Nair & Lal Mohan (India; in capt.; sound recordings; 277-278.)
xv 1977 Nietschmann, B. (Torres Strait; feeding, tides; 10-12, 14.)
1977 Nishiwaki, M.
x 1977 Van Bree & Duguy (Indochina & New Caledonia; 290-291.)
x 1977 Whitmore & Gard (comp. w/ HG; 11, 13, 16.)
xv 1978 Abdulali, H. (Great Nicobar Is.; 749.)
x *1978 Anderson & Birtles (Queensland; behavior & ecology; 1-23.)
x 1978 Anderson & Heinsohn (Australia; status survey; 13-26.)
1978 Asano et al. (in capt., Toba, Japan)
1978 Bhaskar, S. (Gulf of Kutch, India)
x 1978a Domning, D.P. (myology, comp. w/ TI; 8-56, 66-71.)
x 1978c Domning, D.P. (phyletic position & occurrence in Africa; 573-574, 576, 578-579.)
x 1978 Heinsohn et al. (Brisbane, Australia; 91-92.)
x 1978a Heinsohn, G.E. (conservation; pop. acc.; 29-30.)
*1978a Husar, S.L. (review)
x 1978 Kasuya & Nishiwaki (age determination by tusk growth layers; 301-310, 4 pls.)
x *1978 Marsh et al. (review of anatomy & physiology; 159-168.)
xv 1978 Marshall, A.J. (Australia; Aboriginal story; 80-84.)
x 1978 McCabe et al. (oxygen affinity of hemoglobin; 19-22.)
x *1978 Mitchell, J. (age determination by tusk growth layers; 317-348.)
1978 Ormond, R.F.G. (Red Sea)
x 1978 Stanbury, P.J. (Australia; accounts by Dampier & Portlock; 18-19.)
xv 1978 Taylor, D. (Sumatra; tears used as aphrodisiac; 205-213.)
x *1979 Anderson, P.K. (review of behavior; 113-144.)
x 1979 Blair, D. (Australia; trematode *Labicola elongata*; 519-526.)
x 1979 Budiarto et al. (Sulawesi; nasal parasites; 568.)
x 1979 Caton, A. (Australia; pop. acc.; 1-4.)
v 1979 Cropp, B. (Australia; pop. acc.)
x 1979 Farmer et al. (blood chemistry, comp. w/ TI; 231.)
x 1979 Hartman, D.S. (behavior & ecology, comp. w/ TM; 32, 49, 57-59, 62, 67, 69, 75, 82, 85-86, 111-112, 121-124, 132, 136, 138.)
xv 1979 Hilmy et al. (Red Sea; hematology; 197-203.)
x 1979 Kamiya et al. (organ weights; 129-132, pls. 1-4.)
x 1979 Miyazaki et al. (Sulawesi; metals & organochlorines in tissues; 125-128.)
x 1979 Nishiwaki et al. (distr.; 133-141.)
xv 1979 Pedley, I. (Queensland; oil industry; 231.)
x 1979 Tas'an et al. (Indonesia; capture, transport, captive maintenance, morphometrics, necropsy data; 1-30.)
xv 1979 Zhang, Z.-m. (China; pop. acc.; 33-36.)
xv 1980 Bertram, G.C.L. (research & conservation; gen. acc.; 219-221.)
x 1980 Blair, D. (Indopacific region; trematode *Indosolenorchis hirudinaceus*; 511-513.)
x 1980 Bullock et al. (sound production & hearing, comp. w/ TI; 130, 132.)
1980 Carrier & Carrier (Papua New Guinea)
v 1980 Caton, A. (Australia; pop. acc.)
x 1980 Denton et al. (Queensland; heavy metals in tissues; 201-219.)
x *1980a Hudson, B.E.T. (Papua New Guinea; conservation; 1-102.)
x 1980 Inuzuka et al. (comp. w/ Mioc. tooth from Japan; 640-641.)
x 1980 Kataoka & Asano (in capt., Toba, Japan; 269-270.)
x 1980 Lal Mohan, R.S. (India; seasonal occurrence, sex ratio; 391-397.)
x *1980 Marsh, H. (Australia; age determination; 181-201.)
1980 Olewale & Sedu (Papua New Guinea)
x 1980 Sander, H. (Papua New Guinea; feeding habitats; 1-31.)
x *1981a Anderson, P.K. (behavior & conservation; 640-647.)

- x 1981b Anderson, P.K. (Australia; behavior; 91-111.)
- x 1981 Bertram, G.C.L. (past abundance & prospects; 1-7.)
- x 1981 Best, R.C. (diet & nutrition; 3-6, 13-15, 21-24.)
- x 1981a Blair, D. (Australia; parasitic flukes; 1-54.)
- x 1981b Blair, D. (parasites; gen. acc.; 46.)
- x 1981c Blair, D. (techniques for parasite collection; 275-285.)
- x 1981 Brownell et al. (Palau; status; 19-42.)
- x 1981 Campbell & Ladds (Queensland; diseases; 176-181.)
- x 1981 Chase, A. (Australia; Aboriginal use & beliefs; 112-122.)
- x 1981 Denton & Breck (Queensland; mercury in tissues; 117, 119-120.)
- x 1981a Denton, G.R.W. (Queensland; heavy metals in tissues; 169-174.)
- x 1981 Elliott et al. (salmonellosis; 203-208.)
- x 1981 Elliott, M.A. (Northern Territory, Australia; distr. & status; 57-66.)
- x 1981a Heinsohn, G.E. (Queensland; distr. & status; 55-56.)
- x 1981c Heinsohn, G.E. (aerial survey techniques; 217-227.)
- x 1981d Heinsohn, G.E. (techniques for measurement and for data & specimen collection; 228-238.)
- x 1981 Hendrokusumo et al. (Indonesia; distr.; 10-18.)
- x 1981b Hudson, B.E.T. (Papua New Guinea; conservation & public education; 123-141.)
- xv 1981 Johannes, R.E. (Palau; hunting & sale; 25, 68, 73.)
- x 1981 Johnstone & Hudson (Papua New Guinea; mouth samples of diet; 681-690.)
- x 1981 Jones, S. (Burma, India, Sri Lanka, & neighboring areas; distr. & status; 43-54.)
- x 1981 Kamiya & Yamasaki (sinus hair; 193-197.)
- x 1981 Kataoka & Asano (in capt., Toba, Japan; 199-203.)
- x 1981 Marsh & Glover (male reproductive tract; 261-273.)
- x 1981 Marsh & Heinsohn (Queensland; workshop on aerial survey techniques; 345-353.)
- x 1981 Marsh & Kasuya (workshop on reading growth layers of tusks; 354-368.)
- x 1981 Marsh et al. (Wellesley Islands, Queensland; hunting & conservation; 255-267.)
- x *1981a Marsh, H. (proceedings of dugong seminar/workshop; 1-400.)
- x 1981d Marsh, H. (female reproductive tract; 248-259.)
- x 1981e Marsh, H. (techniques for age determination; 311-343.)
- x 1981 Maynes & Hudson (on Papua New Guinea postage stamp; 4-6.)
- x 1981 Mitchell, J. (DD; Queensland; age determination; 99-109.)
- x 1981 Murray, R.M. (volatile fatty acids; 166-168.)
- xv *1981 Nietschmann & Nietschmann (Torres Strait; hunting & econ. use; 54-62.)
- x 1981 Prince et al. (Western Australia; distr. & status; 67-87.)
- x 1981 Purse, B. (Queensland; hunting; review of film; 199-200.)
- x 1981 Rainey, W.E. (tissue sampling techniques for electrophoresis; 240-247.)
- x 1981 Santiapillai, C. (Sri Lanka; ecology & conservation; 2-6.)
- x 1981a Spain & Marsh (Australia; cranial variation; 143-161.)
- x 1981b Spain & Marsh (standard skull measurements; 286-301.)
- x 1981 Sprent, J.F.A. (nematode *Paradujardinia halicoris*; 309-310, 319, 321-322, pl. 3.)
- x 1981 Yamasaki et al. (tongue; 182-191.)
- x *1982a Anderson, P.K. (Shark Bay, Australia; population size & habitat use; 69-84.)
- x *1982b Anderson, P.K. (Shark Bay, Australia; behavior; 85-99.)
- x 1982 Barnett & Johns (Queensland; hunting, conservation, underwater observations; 515-524.)
- x 1982 Domning, Rice et al. (distr. & status; 305.)
- x 1982 Kleinschmidt, A. (body proportions, 375; pelvis, 390-392.)
- x 1982 Ligon, S.L.H. (Kenya; aerial survey; 511-513.)
- x 1982 Marsh & Heinsohn (Australia & Papua New Guinea; conservation; 1-5.)
- x 1982 Marsh et al. (Queensland; stomach contents; 55-67.)
- x 1982 Robineau & Rose (Djibouti; 233-238.)
- x 1982 Wagner, R. (Papua New Guinea; "ri" not a dugong; 38.)
- xv 1983a Anon. (Persian Gulf; deaths from oil spill; 180.)
- xv 1983 Begley et al. (Persian Gulf; deaths from Nowruz oil spill; 79.)
- x 1983a Domning, D.P. (dental evolution; pop. acc.; 11.)
- x 1983 Marsh & Anderson (Australia; capture myopathy; 1-3.)
- x 1983 Marsh, H. (Vanuatu; conservation recommendations; 1-5.)
- x 1983 Mead, J.G. (Papua New Guinea; "ri" not a porpoise, possibly a dugong; 161-162.)
- x 1983 Piggins et al. (eyes & vision, comp. w/ TI; 112, 121-126.)
- v 1983 Powell, J.A., Jr. (Australia; pop. acc.)
- xv 1983 Preen & Heinsohn (Australia; 4 photos; 20-21.)
- x 1983 Sibert, J.R. (Papua New Guinea; "ri" probably a marine mammal; 159-161.)
- x 1983 Tisdell, C.A. (Papua New Guinea; conservation; 14-15.)

- x 1983 Wagner et al. (Papua New Guinea; "ri" not a dugong; 113-125.)
- x 1984a Anderson, P.K. (suckling; 510.)
- x 1984c Anderson, P.K. (Queensland; behavior & ecology; 37-42.)
- v 1984 Cropp, B. (Australia; pop. acc.)
- x 1984 Hudson, B.E.T. (Papua New Guinea; hunting; pop. acc.; 298-301.)
- x 1984 Marsh & Eisentraut ("*D. dugong*"; palatal ridges; 314-315.)
- x 1984c Marsh, H. (Australia; rescue of animals stranded by cyclone; 106-107.)
- x *1984 Marsh, Heinsohn & Channells (female reproductive tract; 743-766.)
- x *1984 Marsh, Heinsohn & Glover (male reproductive tract; 721-742.)
- x *1984 Marsh, Heinsohn & Marsh (reproduction & population dynamics; 767-788.)
- 1984a Minnegal, M. (Queensland; archeological site)
- xv 1984b Minnegal, M. (Queensland; archeological site; butchering; 15-20.)
- x 1984 Nietschmann, B. (Torres Strait; hunting & ecology; 625-651.)
- x 1984 Rainey et al. (molecular systematics; 586-587.)
- x 1984 Robinson, N.H. (New South Wales; strandings; 157.)
- 1984a Salm & Usher (Indonesia)
- 1984b Salm & Usher (Indonesia)
- x 1984 Short, R.V. (Australia; gen. acc.; karyotype; 382-384.)
- x 1985 Anderson & Prince (Shark Bay, Australia; attacks by killer whales; 554-556.)
- x 1985 Baldwin, C.L. (Australia; conservation & management; 1-20.)
- xv 1985 Beckjord, J.-E. (Papua New Guinea; "ri" a dugong; 154-155.)
- x 1985 Fortelius, M. (cheek tooth morphology & eruption; m11.)
- xv 1985 Greenwell, J.R. (Papua New Guinea; "ri" not a dugong; 151-154.)
- x 1985 Kenchington, R.A. (Great Barrier Reef, Australia; conservation; 89-90.)
- x 1985 Kendall, B. (Kenya; pop. acc.; 32-33.)
- 1985 Nishiwaki & Marsh
- x 1985 Pirlot & Kamiya ("*D. dugong*"; brain morphology; 147-155.)
- x 1985 Rowlatt & Marsh (heart & great vessels; 95-106.)
- xv 1985 Sibert, J.R. (Papua New Guinea; "ri" possibly a dugong; 144-145.)
- v 1985 Taylor, D.C. (Arabia; pop. acc.)
- 1985 Thomson, D.F. (Australia)
- 1985 Vousden, D.H.
- xv 1985 Wagner, R. (Papua New Guinea; "ri" not a dugong; 149-151, 156.)
- x 1986a Anderson, P.K. (Shark Bay, Australia; temperature, nutrition, & seasonal movements; 473-490.)
- xv 1986c Anon. (not exterminated from Persian Gulf by oil spill; 25.)
- xv 1986 Baldwin, C.L. (Queensland; conservation; 206-212.)
- x 1986 Bayliss, P. (Australia; aerial survey techniques; 27-37.)
- 1986 Bhaskar, S. (India)
- x 1986 Blair, D. (parasites; gen. acc.; S21-S22.)
- xv 1986 Goldsmith, P. (East Africa; hunting with remoras; 231.)
- 1986c Hudson, B.E.T. (Papua New Guinea; conservation & traditional hunting)
- 1986 Marsh, Freeland et al. (Australia; stranded by cyclone)
- x *1986a Marsh, H. (Torres Strait; population model & status; 53-76.)
- x 1986 Prince, R.I.T. (northern Western Australia; 1-38.)
- x 1986 Tisdell, C.A. (Australia & Papua New Guinea; conservation; 102-104.)
- 1986 Wang & Sun (China; distr.)
- x 1986 Williams, T.R. (Papua New Guinea; "ri" definitely a dugong; 61-68.)
- xv 1987 Finger, J. (Queensland; history of oil industry; 3-5.)
- 1987 Frazier et al. (Red Sea)
- x 1987 Greenwell, J.R. (Papua New Guinea; history of study of "ri"; 140-144.)
- 1987 Marsh, H. (Australia)
- x 1987 Mossman, H.W. (fetal membranes; 267-268.)
- 1987 Preen, A.R. (Persian Gulf)
- 1987 Rathbun, Reid & Tas'an (radiotagging)
- 1987 Vine & Schmid (Red Sea)
- x 1987 Whitten et al. (Sulawesi; gen. acc.; 205, 207-210, pl. 13.)
- x 1987 Wootton, J.T. (body mass & age at first reproduction; m748.)
- 1988 Anderson, G.R.V. (Australia; traditional hunting)
- 1988a Anderson, P.K. (Shark Bay, Australia)
- 1988b Anderson, P.K. (aerial survey)
- 1988 Bradley, J.J. (Australia; traditional hunting)
- 1988 Davis, S. (Australia; traditional hunting)
- x 1988 Doig & Dyson (Australia; satellite tracking; 438-439.)
- x 1988 Fischer, M.S. (ear region, comp. w/ TM; 368-369, 374, 376.)
- 1988 Gray & Zann (Australia; traditional knowledge)
- x 1988 Hasegawa, H. (Okinawa; nematode *Paradujardinia halicoris*; 23-25.)
- x 1988a Ho, H.C. (Singapore; gen. acc., stranding records; 22-25.)

- x *1988a Marsh, H. (Australia; review of ecology & conservation; 9–21.)
- x 1988b Marsh, H. (Australia; status of research; 128–130.)
- xv 1988c Marsh, H. (Australia; gen. acc.; 8–10.)
- 1988d Marsh, H. (Australia)
- x 1988e Marsh, H. (Australia; conservation; 495–502.)
- 1988 Prince, R.I.T. (Australia; traditional knowledge)
- x 1988 Rathbun et al. (Palau; status; 265–270.)
- x 1988 Reddaciuff, G. (Australia; killed by cookie-cutter sharks; 133–134.)
- x 1988 Sehm, G.G. (Papua New Guinea; “ri” not a dugong; 145–149.)
- 1988 Smith, A.J. (Australia; traditional hunting)
- xv 1988 Smith, D. (Australia; children’s article; 44–47.)
- x 1988 Tucker & Puddicombe (Australia; conservation; 82–83.)
- x 1988 Williams, T.R. (Papua New Guinea; “ri” a dugong; 149–151.)
- 1988 Wilson, S. (gen. acc.)
- xv 1989 Bay & Demoulin (Hansa Bay, Papua New Guinea; m12.)
- x 1989 Bayliss & Freeland (“*D. dugong*”; Gulf of Carpentaria, Australia; distr. & abundance; 141–149.)
- x 1989 Buffrénil & Schoevaert (pachyostosis; 2107–2119.)
- x 1989 Chambers & Bani (Vanuatu; status; 13–14.)
- x 1989c Domning, D.P. (comp. w/ *Dioplotherium manigaulti*, 424; evolution of tusks, 426.)
- 1989 Lanyon et al.
- x *1989 Leatherwood & Reeves (Sri Lanka; status, distr., catch, conservation; 4–5, 7, 61, 64, 80, 82–91, 105, 129–132.)
- 1989 Marsh & Saalfeld
- x 1989a Marsh & Sinclair (Australia; aerial surveys; visibility bias correction; 1018–1028.)
- 1989b Marsh & Sinclair
- x 1989a Marsh, H. (Australia; stranded by cyclone; 78–84.)
- 1989c Marsh, H. (gen. acc.)
- x *1989 Preen et al. (Arabian region; conservation; 1–43.)
- x *1989a Preen, A. (Arabian region; status & conservation; 1–200.)
- x 1989b Preen, A. (Queensland; mating behavior; 382–387.)
- 1989 Slade et al. (Australia; pop. acc.)
- x *1990 Marsh & Rathbun (Queensland; radio & satellite tracking; 83–100.)
- 1990 Marsh & Saalfeld (Great Barrier Reef Marine Park, Australia; distr. & abundance)
- x *1990 O’Shea & Reep (encephalization quotients & life history; 534–543.)
- x 1990 Paterson, R.A. (Queensland; mortality from shark nets; 155–156.)
- x 1990 Smith & Marsh (Queensland; management of traditional hunting; 47–55.)
- x 1991 Bradley, J.J. (Australia; traditional hunting; 91–110.)
- x 1991a Brown, J.N.B. (United Arab Emirates; status; 20–21.)
- x 1991b Brown, J.N.B. (Abu Dhabi; meat sold; 33.)
- x 1991 Domning & de Buffrénil (hydrostatic adaptations of skeleton; 337, 358–359, 361–362.)
- x 1991a Domning, D.P. (pelvic bones; sexual & ontogenetic variation; 311–316.)
- x 1991 Frazier & Mundkur (Gulf of Kutch, India; anatomy, status; 368–379.)
- xv 1991 Johnson, R.L. (Australia; pop. acc.; 36–46.)
- 1991a Kamiya, T. (effects of Persian Gulf war)
- x 1991 Kingdon, J. (Arabia; pop. acc.; 112–114.)
- 1991 Marsh, H. (Australia; gen. acc.)
- x 1991 Prieur & Guérin (United Arab Emirates; archeological site; 72–83.)
- x 1992 Blair & Hudson (Papua New Guinea; trematode *Lankatrematoides gardneri*; 1077–1079.)
- 1992 Dong et al. (China; larynx, trachea, lungs)
- x 1992 Hellyer, P. (Abu Dhabi; 44.)
- x 1992 Marmontel et al. (reproductive biology; 295–302, 308.)
- x 1992 Whitten & Whitten (Indonesia; pop. acc.; 60–61.)
- x 1993a Anon. (India; conservation; 42.)
- xv 1993 Brown, J. (Australia; seagrass dieoff; pop. acc.; 11.)
- x 1993 Erftermeijer et al. (South Sulawesi; stomach contents; 229–233.)
- xv 1993 Harling, R. (Shark Bay, Australia; lekking behavior; pop. acc.; 10–11.)
- x 1993 Hellyer, P. (Abu Dhabi; 24.)
- x 1993 Loyer, B. (Vanuatu; behavior of lone individual; 54–55.)
- x 1993 Wang, P. (China, Taiwan; distr.; 275–278.)
- Dugong dugon australis* (Retzius, 1794) Kleinschmidt, 1982
- x *1982 Kleinschmidt, A. (“*D. d. australe*”; new rank; distr., 372, 380, 382; tail shape, 408.)
- Dugong dugon dugon* (Müller, 1776) Kleinschmidt, 1982
- x *1982 Kleinschmidt, A. (new rank; distr., 372, 380, 382; tail shape, 408.)
- Dugong dugon hemprichii* (Ehrenberg, 1828) Kleinschmidt, 1982
- x *1982 Kleinschmidt, A. (new rank; distr.; 372, 380, 382.)
- Dugong dugon tabernaculi* (Rüppell, 1834) Gohar, 1957
- x *1957 Gohar, H.A.F. (“*D. dugong tabernaculi*”, n.comb. & rank; anatomy, distr., feeding behavior, & parasites; 3–49, pls. 1–3.)
- x 1959 Jones, S. (discussion of validity; 201.)

- x 1961 Silas, E.G. (size; m264.)
 1963 Bertram, G.C.L.
 x 1974 James, P.S.B.R. (not seen to differ from Indian dugong; 183-184.)
 x 1976 Ilani, G. ("*D. d. tabernacule*"; Gulf of Aqaba; 161.)
 x 1976 Paz & Ilani ("*D. d. tabernacule*"; Red Sea; 73-74.)
 x 1988 Fouda, M.M. (Red Sea; 503.)

Dugong hemprichii (Ehrenberg, 1828) [author of combination not identified] (= *Dugong dugon*)

- x 1925 Mertens, R. (syn. of *Halicore tabernaculi*; m30.)
 1931 Beaux, O. de
 x 1982 Domning, Rice et al. (syn. of *D. dugon*; m305.)
 x 1982 Kleinschmidt, A. (pelvis; 392.)

Dugong indicus (Boddaert, 1785) Lacépède, 1799 (= *Dugong dugon*)

- *1799 Lacépède, B.G.E. de (n.sp.)
 x 1982 Kleinschmidt, A. (syn. of *D. dugon*; 382.)

Dugongidae Gray, 1821 (family)

- x *1821 Gray, J.E. (n.fam.; in classification; 309.)
 x 1895 Palmer, T.S. (name recognized in place of *Halicoridae*; 450.)
 x 1932c Simpson, G.G. (in classification; 281.)
 x 1941 Kretzoi, M. (in classification; 154, pl. 6.)
 x 1945 Simpson, G.G. (in classification; 135.)
 x 1967 Browder, J. (m5.)
 x 1968 Rice & Scheffer (in classification; 5.)

Dugongidus Gray, 1821 (= *Dugong*)

- x *1821 Gray, J.E. (n.gen.; in classification; 309.)

Dugongidus dugong (Gmelin, 1788) Gray, 1821 (= *Dugong dugon*)

- x *1821 Gray, J.E. (implied n.comb.; 309.)

Dugonginae (Gray, 1821) Simpson, 1932 (subfamily)

- x *1932a Simpson, G.G. (new rank; in classification; 424.)
 x 1941 Kretzoi, M. (in classification; 154.)
 x 1945 Simpson, G.G. (in classification; 135.)
 *1994b Domning, D.P. (extended to include Rytiodontinae)

Dugungus Tiedemann, 1808 (= *Dugong*)

- x *1808 Tiedemann, F. (n.gen.; 554.)
 x 1811 Illiger, C. (syn. of *Halicore*; m140.)
 x 1872a Gill, T. (syn. of *Halicore*; m92.)
 x 1932a Simpson, G.G. (m423.)
 x 1978c Domning, D.P. (syn. of *Dugong*; m578.)

Dugungus indicus (Boddaert, 1785) Tiedemann, 1808 (=

Dugong dugon)

- x *1808 Tiedemann, F. (n.comb.; 554.)
 1833 Hamilton, R.

Dusisiren Domning, 1978

- x *1978b Domning, D.P. (n.gen.; 2-4, 7, 11-75, 98, 101-110, 113-114, 116-132, 140-146, 148-158, 161.)
 x 1982 Domning, Morgan & Ray (m62.)
 x 1982 Kleinschmidt, A. (m378-379.)
 x 1984 Muizon, C. de (m171.)

Dusisiren dewana Takahashi, Domning, and Saito, 1986

- xv 1977b Domning, D.P. ("*DD*"; phyletic position; 354, 358, 360-361.)
 xv 1978b Domning, D.P. ("*D. Species D*"; Plioc., California; 13, 72, 97, 100, 102-104, 109, 129, 144, 146, 157-158.)
 xv 1979 Takahashi et al. ("*Dusisiren n.sp.*"; Late Mioc., Japan; 228.)
 v 1981 Takahashi, S.
 xv *1983 Takahashi et al. (Late Mioc., Yamagata, Japan; report on excavation; 1-76.)
 x *1986 Takahashi et al. (n.sp.; Late Mioc., Yamagata, Japan; 296-321, pls. 53-62.)
 x 1987a Domning, D.P. (pop. acc.; 66-71.)
 x 1988 Estes & Steinberg (evolution & feeding on kelp; 22.)
 x 1989a Domning, D.P. (evolution & feeding on kelp; 53-55.)
 v 1989 Ijiri & Inuzuka

Dusisiren jordani (Kellogg, 1925) Domning, 1978

- x *1978b Domning, D.P. (n.comb.; Mioc., California; redescription; 7, 9, 13-74, 76, 80-90, 100-104, 106-108, 114, 116-132, 140, 143-144, 150-157, pls. 1-15.)
 x 1980 Inuzuka et al. (m640.)
 x 1982 Aizu Fossil Research Group ("*Dusisiren cf. jordani*"; Late Mioc., Japan; 282-284, pl. 1.)
 x 1982 Barnes, L.G. (pop. acc.; 20.)
 x 1983 Takahashi et al. (comp. w/ *D. dewana*; 13, 15-16.)
 x 1984 Domning & Deméré (comp. w/ *Hydrodamalis cuestae*; 169, 176, 179-180, 183, 186.)
 x 1985 Muizon & Domning (comp. w/ *Metaxytherium calvertense*; 204, 211.)
 x 1986 Takahashi et al. (comp. w/ *D. dewana*; 296-298, 300-311, 315-318.)
 x 1987 Bajpai et al. (comp. w/ *Metaxytherium kachchhense*; 22-23.)
 x 1987 Domning & Thomas (comp. w/ *Metaxytherium serresii*; 216, 222.)
 x 1987a Domning, D.P. (pop. acc.; 66-71.)
 x 1988 Domning, D.P. (comp. w/ *Metaxytherium florida-*

- num; 401, 406, 408–409, 413–415, 418.)
- x 1988 Estes & Steinberg (m21–22.)
- Dusisiren reinharti* Domning, 1978
- xv 1972a Domning, D.P. (“*Metaxytherium* n. sp.”; distr.; 147, 149.)
- xv 1977b Domning, D.P. (“DR”; phyletic position & role in North Pacific paleoecology; 353–354, 356, 358, 360.)
- x *1978b Domning, D.P. (n.gen.n.sp.; Mioc., Baja California; 7, 13–19, 23, 29, 32–33, 36, 42, 61, 67, 73–74, 83, 101–104, 108, 116–117, 120, 143–144, 148–149, pls. 5, 15.)
- x 1980 Haley, D. (pop. acc.; 7.)
- x 1980 Inuzuka et al. (m640.)
- x 1983 Takahashi et al. (m13.)
- x 1985 Muizon & Domning (comp. w/ *Metaxytherium calvertense*; 204, 210–211.)
- x 1987 Bajpai et al. (comp. w/ *Metaxytherium kachchense*; 22–23.)
- x 1988 Domning, D.P. (comp. w/ *Metaxytherium florida-num*; 409.)
- x 1989c Domning, D.P. (comp. w/ *Dioplotherium manigaulti*; m423.)
- Dystomus* Fischer von Waldheim, 1813 (= *Hydrodamalis*)
- *1813–
- 1814 Fischer v. Waldheim, G. (n.gen.; 1: m15, m19.)
- East Indies (SEE ALSO: Asia; Australia; Indian Ocean; Pacific Ocean; Palau; Papua New Guinea; Philippine Islands)
- 1634 Herbert, T.
- 1644 Van der Hagen, S.
- 1686 Tachard, G.
- 1704 Tappe, D.
- 1754 Renard, L.
- 1773 Bernardin de St.-Pierre, J.H.
- 1780 Herbert & Michelson
- 1811 Marsden, W.
- x 1820 Diard & Duvaucel (DD; Singapore; 160.)
- x 1820a Home, E. (DD; Sumatra; m145.)
- x 1820 Raffles, T.S. (DD; Singapore; m174, 180.)
- x 1821a Home, E. (DD; Sumatra; m268.)
- 1821a Raffles, T.S.
- 1821b Raffles, T.S.
- 1821c Raffles, T.S.
- 1838 Unienville, M.C.A.M. d'
- x 1838 Waterhouse, G.R. (DD; Sumatra; 35.)
- 1839 Rigg, J. (Mioc., Java)
- 1846 Cantor, T.E. (DD; Malaysia)
- 1862 Galvano, A.
- x 1869a Bickmore, A.S. (DD; Aru Islands; 244.)
- x 1869b Bickmore, A.S. (DD; Aru Islands; 182.)
- 1875 Milne-Edwards, A.
- 1889 Jacobsen (DD; Indonesia)
- 1895 Ridley, H.W. (Malay Peninsula)
- 1901b Finsch, O.
- x 1905 Linstow, O.v. (DD; Penang; nematode *Ascaris halicoris*; m258.)
- 1905 Pitot, A.
- x 1906b Dexler & Freund (DD; Coral Sea, 49; Malay Archipelago, 63–64.)
- 1907 Gardiner, J.S.
- x 1908 Hanitsch, R. (DD from Borneo; in capt., Singapore, in 1895; 13.)
- 1909 Fauvel, A.A.
- 1910 Fryer, J.C.F.
- 1929 Dammermann, K.W. (DD; Boeroe Is.)
- 1931 Banks, E.A.
- 1938 Asano, N.
- 1939 Hirasaka, K.
- 1947 Tate, G.H.H.
- 1951 Delsman, H.C.
- x *1952 Koenigswald, G.H.R.v. (*Indosiren javanensis*, n.gen.n.sp.; Late Mioc., Java; 610–612.)
- 1956 Holme, T.K. (Malaya)
- 1959 Apaiwongs, C.
- x *1963 Pfeffer, P. (DD; Indonesia; 149–151.)
- x 1965 Harrison, T. (DD; Borneo, Sabah; status; 103.)
- 1965 Medway, L.
- 1966 Harrison, J.L. (DD; Singapore)
- 1969 De Silva, G.S. (Sabah)
- 1969 Dupon, J.F.
- 1970 Bland, G.C.
- x 1971 Almeida, A. de (DD; Timor; legends; 209, 211–212, 220.)
- 1971 Chin, L. (Sarawak)
- x 1973 Bertram & Bertram (DD; distr.; 308–309.)
- x 1974 Bertram, G.C.L. (DD; Indonesia; need for survey; 18–19.)
- 1974 Langham, N.P.E. (DD; Malaysia)
- 1974a MacVeigh, W.P.
- x 1974b MacVeigh, W.P. (DD; Johore Strait; Bland's [1970] report; 117.)
- x 1974 Morton, B.S. (DD; Johore Strait; challenges Bland's [1970] report; 172.)
- 1974 Phillipps, C. (DD; Sabah)
- x *1976 Allen et al. (DD; Sulawesi; 33–48.)
- 1976 Langham, N.P.E. (DD; Malaysia)
- x 1976 Tas'an (DD from Sulawesi; in capt., Jakarta; 1–12.)
- x 1977 Van Bree & Duguay (DD; Indochina & New Caledonia; 290–291.)
- x 1978 Kasuya & Nishiwaki (DD; Celebes, Luzon, Mulgrave & Thursday Islands; 301–303.)
- x 1978 Taylor, D. (DD; Sumatra; tears used as aphrodisiac; 203–213.)

- x 1979 Budiarso et al. (DD; Sulawesi; nasal parasites; 568.)
- 1979 Irwandi & Jarman (DD; Indonesia)
- x 1979 Kamiya et al. (DD; Sulawesi; organ weights; 129-131.)
- x 1979 Miyazaki et al. (DD; Sulawesi; metals & organochlorines in tissues; 125-126.)
- x *1979 Tas'an et al. (DD; Indonesia; distr., capture, & captive maintenance; 1-30.)
- x 1980 Blair, D. (DD; Indonesia; trematode *Indosolenorchis hirudinaceus*; 512-513.)
- *1980 Compost, A. (DD; Aru Islands)
- x 1981b Blair, D. (DD; Indonesia; parasitic flukes; 15.)
- x *1981 Hendrokusumo et al. (DD; Indonesia; distr.; 10-18.)
- 1984a Salm & Usher (DD; Indonesia)
- 1984b Salm & Usher (DD; Indonesia)
- x 1987 Whitten et al. (DD; Sulawesi; distr.; 208-209.)
- x 1988 Ho, H.C. (DD; Singapore, Malaysia; 22-25.)
- 1989 Petocz, R.G. (DD; Irian Jaya)
- 1989 Chambers & Bani (DD; Vanuatu)
- 1990 Sigurdsson & Yang (DD; Singapore)
- x 1992 Whitten & Whitten (DD; Indonesia; pop. acc.; 60-61.)
- x 1993 Erfteimeijer et al. (DD; South Sulawesi; stomach contents; 229-233.)
- Ecology: SEE Behavior; Community Ecology; Food; Food Plants; Insect Control; Migration and Movements; Natural Enemies; Paleoecology; Parasites; Parasitology; Pollution, Effects of; Population Biology; Salinity Tolerance; Temperature, Effects of; Weed Control
- Economic Uses (SEE ALSO: Archeological Sites, Sirenia at; Hunting and Capture; Medicinal Applications; Religious, Superstitious, or Ornamental Use or Observance; Weed Control)
- x 1665 Rochefort, C. de (TMM; Antilles; hide, meat; 194-195.)
- x 1666 La Barre, A. (TMM; Guianas; meat obtained by French, English, & Dutch; 14.)
- x 1667 Rochefort, C. de (TMM; Antilles; hide, meat; 391-394.)
- 1678 Exquemelin, A.O.
- 1732 Barbot, J.
- x *1735 Vieira, A. (*Trichechus*; Amazonia, Brazil; >20 shiploads/year exported, ca. 1658; 26.)
- x 1743 Barrere, P. (TMM; French Guiana; meat; 161-162.)
- 1762 Queirós, J. de S.J. (TI; Brazil; fat)
- 1764 Soimonov, F.I. (HG; hide used for boats)
- x 1785 Bondaroy, A.D.F. de (*Trichechus*; hide; 30-32.)
- x 1790 Andrada e Silva, J.B. de (*Trichechus*; Amazonia, Brazil; exports, 17th century; 389.)
- 1824 Seymour, S.S.
- x 1826 Wied-Neuwied, M. zu (TMM; Brazil; oil, bone; 603.)
- x 1831 Spix & Martius (TI; Brazil; oil, meat, 1122; mixira, 1123.)
- x 1834 Rüppell, E. (DD; Red Sea; hide, 99, 112-113; meat, 112; tusks, 113.)
- x 1836 Smyth & Lowe (TI; Peru; meat; scapula used for spade; 243.)
- 1837 Williams, J.L.
- x 1838 Humboldt, A.v. (TMM; Orinoco R.; meat, fat, oil, hide; whips; 9.)
- x 1847 Edwards, W.H. (TI; meat, hide, bone; 187.)
- x 1851 Gosse, P.H. (TMM; Jamaica; meat; 345, 348-349.)
- x 1853 Herndon, W.L. (TI; Peru, meat, oil, 158, 164; Santarem, Brazil, 1843 & 1846, meat, oil, 300.)
- x 1853 Wallace, A.R. (TI; meat, oil; 186-187, 460-461.)
- x 1855a Gervais, P. (TI; ranching proposed; 116.)
- 1856 Noronha, J.M. de (TI; Brazil; fat)
- x 1857 Fairholme, J.K.E. (DD; Australia; meat, fat, oil; 353.)
- x 1857 Shaw, N. (TS; meat, fat, bone, hide; m99.)
- 1860 Bennett, G. (DD; Queensland)
- 1862 Wight, G. (DD; Queensland; oil)
- x 1869 Marcoy, P. (TI; hide, meat, oil; 1: 671-672, 2: 149, 156-157.
- 1870 Anon. (DD; Australia; oil)
- x 1871 Myers & Myers (TMM; Orinoco R.; oil, hide, meat, fat; 102.)
- 1872 Anon. (DD; Australia; oil)
- x 1873 Conklin, W.A. (*Trichechus*; South America; meat, hide, oil; pop. acc.; 166.)
- x 1874 Estacio da Silveira, S. (TMM; Maranhão, Brazil; food, medicine; 26-27.)
- x 1874 Heriarte, M. de (*Trichechus*; Gurupá, Brazil; exports, ca. 1662; 29.)
- x 1875 Marcoy, P. (TI; hide, meat, oil; 2: 42, 187, 193-194.)
- x 1876 Orton, J. (TI; oil, glue, meat; 477.)
- 1876 Thorne, E. (DD; Queensland; oil)
- x 1880 Le Baron, J.F. (TML; Florida; sale of skins & skulls to museums; 1006.)
- x 1881 Anon. (DD; Queensland; industry, 738-747; hide, 741; meat, fat, 741-742; bones, tusks, 742; oil, 742-743.)
- x 1881 Nordenskiöld, A.E. (HG; Bering Is.; meat, 274-276; hide used for boats, 276-277; ribs used for sledge runners & carvings, 280.)
- x *1882 Faithful, P. (DD; Queensland; meat, oil, hide, 5-7, 9-11, 13, 15; commercial fishery, 11, 13.)
- x 1884b True, F.W. (*Trichechus*; Americas; meat, hide, oil, bones, "stones" [ear bones]; 127-128.)
- x 1885 Santa-Anna Nery, F.J. de (TI; Brazil; meat ex-

- ported, 1881–82; 168.)
- x 1886 Miklouho-Maclay, N. de (DD; meat, tanning of hide; m193.)
- x 1887 Roviroso, J.N. (TMM; Tabasco, Mexico; hide, bones, meat; 357–358.)
- 1888 Ching, J.L. (DD; Queensland; oil)
- x 1888 Hart, H.C. (DD; hide; used by Hebrews for sandals & Ark; 26–27.)
- 1890 Senior, W. (DD; Queensland)
- x 1891 Costa e Silva, B. da (TI; Brazil; mixira; 94–95.)
- x 1891 Flower & Lydekker (DD; Australia; oil; 221.)
- x 1891 Stuart, H.V. (TML; Florida; meat sold as beef in New York; 137.)
- x 1893 Goeldi, E.A. (*Trichechus*; Brazil; meat, hide, fat; 120.)
- x 1895 Thurston, E. (DD; Sri Lanka; meat, 98; fat, 99.)
- x *1895 Veríssimo, J. (TI, Brazil, meat, fat, hide, 38, 40, 55, 93, 96, 99–102, 117, 199; TMM, Brazil, meat, 99.)
- x 1897 Loyau, G.E. (DD; Queensland; 365.)
- x 1897 Sinclair, W.F. (DD; meat sold in London; m198.)
- x 1899 Hunt, A.E. (DD; Torres Strait; meat; m13.)
- x *1899 Steller, G.W. (HG; hide, fat, meat; 200.)
- x *1903 Rodriguez Ferreira, A. (TI; Pará, Brazil; meat, mixira, 170–171; tripe, fat, 171; tanning of hides, 173–174.)
- 1904 Stevenson, C.H. (*Trichechus*, DD; hide)
- x 1905 Chermont de Miranda, V. (etymology of word “michira”; 62.)
- x 1906 Annandale, N. (DD; India; meat, oil; 242.)
- x 1906b Dexler & Freund (DD; tears, in perfume; 64.)
- x 1909 Anon. (DD; hide, oil, meat, tusks; 93.)
- x 1912 Harris, W.K. (DD; Australia; meat, oil, lard; 227–228.)
- x 1915 Seale, A. (DD; Philippines; meat; m215.)
- x 1917b Anon. (*Trichechus*; ranching for meat; 454.)
- x 1917 Fairchild, D. (TML; Florida; meat, 338–339, 342–345; hide, 344–345; bone, oil, fat, 345; DD, hide, 344.)
- x 1918 Ménégau, A. (*Trichechus*; potential for commercial production of meat & other products; 698–705.)
- x 1920 Goldman, E.A. (TMM; Panama; meat, 69–70; hide, 70.)
- *1922 Le Cointe, P. (TI; Brazil; statistics on export of mixira)
- x 1923 Petit, G. (DD; Red Sea; hide, tusks; 83.)
- x 1923 Watson, E. (DD; China; oil; 103.)
- x 1925 Bittencourt, A. (TI; Brazil; exploitation; 134–136.)
- x 1925 Lee, I. (DD; Australia; meat; 19.)
- x *1925 Steller, G.W. (HG; fat, meat; 161, 182, 228, 234–235.)
- x 1926 MacCreagh, G. (TI; Tiquié R., Brazil; marinated & smoked meat; 324.)
- x 1928 Prater, S.H. (DD; meat, hide, oil, fat, bones, tusks; 86–88.)
- x 1929 Prater, S.H. (DD; India; meat, viscera; 987.)
- x 1931 Moraes, R. (TI; Brazil; mixira; 67.)
- x 1931 Read, B.E. (?HG; China; hide, oil; 16.)
- 1933 Deraniyagala, P.E.P.
- x 1934 Bittencourt, A. (TI; Brazil; mixira; 25.)
- x 1934 Thomson, D.F. (DD; Australia; trade in hunting charms, 240; meat, oil, 241–242, 250; butchering, 247–250, pls. 30–31.)
- x *1935 Barrett, O.W. (TMM; Central America; “3 kinds of meat,” oil, hide, stapes; 218.)
- x 1935 Murie, A. (TMM; Belize; few brought to market; 30.)
- x 1935 Sowerby, A. de C. (DD, China, tympanic bones, 81; ?HG, China, hide, oil, 82.)
- x 1936 Moore, W.R. (DD; Australia; meat, oil, hide, bones; m746.)
- 1937 Promus, J. (DD; Australia; commercial hunting)
- x 1937 Woods, F.J. (TS; Nigeria; professional hunting & price of meat; 23–27.)
- x 1939 Beal, W.P.B. (TS; raising for meat, oil, & bones proposed; 125–126.)
- x 1939a Moraes, R. (TI; Gurupá, Brazil; exports, 17th century; 91.)
- x 1940 Crouse, N.M. (TMM; West Indies, 17th century; m110.)
- x 1940 Machado, F. de P. (TI; Brazil; meat; prices of hide; 246.)
- x 1941 Landa, D. de (TMM; Yucatan; meat, fat; 16th century; 190–191.)
- x *1941–
- 1943 Pereira, M.N. (TI; Brazil; meat, hide; 100–102, 153, 218, 65.)
- x 1943 Jobim, J. (TI; Brazil; tinted hides; 178.)
- x 1944 Moraes Rêgo, A.R. de (TI; Brazil; meat, mixira, hide; commercial raising; 11–12.)
- x *1944 Pereira, M.N. (TI; Brazil; meat, mixira, fat, 55, 67–71, 82–85, 88–89, 91; “3 kinds of meat,” 67; hide, 70, 82, 84–92; viscera, bones, 82.)
- x 1945 Santos, E. (TI; Brazil; meat, fat, hide; 158–159.)
- 1947 Irvine, F.R. (TS)
- x 1948 Bessac & Villiers (TS; Senegal; unrealized plan to raise manatees for meat during World War I; m189.)
- x 1948 Mendes, A. (TI; Brazil; meat, oil, hide; 325–327.)
- x 1949 Jervis, J. (DD; Queensland; oil; 340.)
- x 1949 Loveless, J.R. (DD; Queensland; oil; 8.)
- x 1951 Aragon, F. (DD; Philippines; atlas, meat; 267–268.)
- x 1953 White, T.E. (*Trichechus*; estimated to yield 70% usable meat; 398.)
- x 1954 Lawrence, J.E. (TML; bones, meat, lard, oil, hide; pop. acc.; 403–404.)

- x 1955 MacMillan, L. (DD; hide, bones, oil, 18; meat, 18-19.)
- 1957 Divin, V.A. (HG; Bering Is.)
- x 1957 Gohar, H.A.F. (DD; Red Sea; oil; 12.)
- x 1957 Meggers & Evans (TI; hunting & trading in 17th century; m570.)
- x 1958 Savory, B. (DD; East Africa; oil, meat; 257.)
- 1959 Cilento & Lack (DD; Queensland; oil industry)
- x 1960 Crusz, H. (DD; Sri Lanka; oil, meat, bones; 301-302.)
- x 1960 Vúletin, A. (TMM; South America; meat; hide for thongs & thole-pins of boats; 124.)
- x 1962 Sarkar & Mitra (DD; hide; m94.)
- x 1963 Bertram & Bertram (TMM; Guyana; meat, weed control; 91-93.)
- 1963 Bertram, G.C.L. (gen. acc.)
- x 1963 Lal Mohan, R.S. (DD; India; oil; m152.)
- x *1963 Pfeffer, P. (DD; Indonesia; meat, tears, tusks; 150-151.)
- 1964 Weiss, K.
- x 1965 Lluch B., D. (TMM; Mexico; meat; hide for whips; 410.)
- x 1966c Bertram & Bertram (DD; Australia; oil, meat; 222.)
- x *1966 Thomas, D. (DD; India; meat, oil, 80-81; bones, 80.)
- x 1967 Carvalho, J.C. de M. (TI; Brazil; statistics; 26-27, 31, 33.)
- x 1967 Fiuza Lima, F. (TI; Brazil; proposed captive breeding; 17-18.)
- x 1967 Jones, S. (DD; India; meat; 216-218.)
- x 1967 Pirie, N.W. (sirs. as food source; 31.)
- x *1967 Welsby, T. (DD; Moreton Bay, Queensland; oil, meat, hide, tusks; 1: 102-103, 106-107, 110, 2: 241-257.)
- 1967 Wing, E.S.
- x *1968a Bertram & Bertram (sirs. as food source, 385-386, 388-390, 393; other uses, 386, 388-389.)
- x *1968 Betz, J.J. (TML; Florida; manatee-farming scheme, ca. 1893; 204-209.)
- x *1968 Lack, C. (DD; Queensland; history of oil industry; 4-6.)
- x 1969 Bibby, G. (DD; Abu Dhabi; meat; 224, 303-304, 306.)
- x 1969 Gibson, J.R. (HG; Bering Is.; 29-31, 48, 51-52, 54.)
- x 1970b Bertram & Bertram (DD; Sri Lanka; 363.)
- x 1970 Yin, T. (DD; Burma; meat, fat; 327.)
- x 1971 Almeida, A. de (DD; Timor; meat, hide, oil, teeth, tears; 212.)
- x 1971a Barada, B. (TML; Florida; meat sold in restaurants as "imported from Africa"; 21.)
- x 1971 Hall, E.S., Jr. (HG; Alaska; bone ?used as backing for cutting skins; 34.)
- x 1971 Kingdon, J. (DD; East Africa; hide, meat, oil; 397.)
- 1971 Lange, F.W.
- x 1971 Lima, D.C. (TI; Itacoatiara, Brazil; meat exported, 1968; 7.)
- x 1972 Walker, K. (DD; Queensland; meat; 71, 73-74.)
- 1973 Bertram & Bertram (sirs.; meat, oil, hide, etc., 321-325, 333; "3 kinds of meat," 321.)
- 1973 Nietschmann, B. (TMM; Nicaragua)
- 1974 Jhingran & Gopalakrishnan
- x 1974 Mondolfi, E. (TMM; Venezuela; meat, fat, bones, hide; live animals for zoos & weed control; 13-14.)
- x 1974 Sikes, S. (TS; Nigeria; ranching for meat; 469-470.)
- x 1976 Allen et al. (DD; Sulawesi; "semicaptives" used for food; meat, tusks, tears; 35.)
- 1976 Byczkowska-Smyk, W.
- x 1976 Loveland, F.O. (TMM; Nicaragua; meat, fat, hide, blood; 70, 75, 81.)
- x 1976 Whitaker, Z. (DD; India; meat; 6.)
- x 1977 Anon. (DD; South India; meat sold; 439.)
- x 1977 Bertram, G.C.L. (DD; Abu Dhabi; meat; 4.)
- x 1977c Domning, D.P. (TI; Brazil; sold as pets; 3.)
- x 1977 Harris & Bertram (DD; Abu Dhabi; meat; 5-6.)
- x 1977 Heinsohn et al. (DD; potential for meat production; 246.)
- x 1977 Meggers, B.J. (TI; Brazil; raising for meat proposed; 49.)
- x 1978 Campbell & Gicca (TMM; Mexico; meat seldom sold; 263.)
- x 1978a Heinsohn, G.E. (DD; Australia; yields 20%-26% of body weight as usable meat + 4-5 gallons of oil; 30.)
- x 1979 Klein, E.H. (TMM; Honduras; meat; 23-24.)
- x 1979 Pedley, I. (DD; Tin Can Bay, Queensland; oil industry; 231.)
- x 1980 Ayres & Best (TI; Brazil; meat prices, hides; 83-85, 90-92.)
- x 1980 Cumbaa, S.L. (TML; Florida; aboriginal use; 6, 8-9.)
- 1980 Wing & Scudder
- x 1981 Chase, A. (DD; Australia; Aboriginal use & beliefs; 112-122.)
- x 1981a Domning, D.P. (TI, TMM; Brazil; meat, fat, hide, bones; 94.)
- x 1981 Hendrokusumo et al. (DD; Indonesia; meat; 10, 12, 15.)
- x 1981b Hudson, B.E.T. (DD; Papua New Guinea; meat; 123-126.)
- x 1981 Johannes, R.E. (DD; Palau; hunting & sale; 25, 68, 73.)
- x 1981 Nietschmann & Nietschmann (DD; Torres Strait; 54-63.)
- x 1981a Smith, N.J.H. (TI; Brazil; history of exploitation; 184-186.)
- x 1981b Smith, N.J.H. (TI; Itacoatiara, Brazil; meat US\$.40/kg; 95-96.)

- x 1982 Barnett & Johns (DD; Queensland; meat; 518.)
- x *1982a Domning, D.P. (TI, TMM; Brazil; meat, fat, hide; history of commercial exploitation, ca. 1785–1973; 101–126.)
- 1982 O'Donnell, D.J. (TMM; Central America)
- 1982 Wing & Reitz
- x 1983 Bradley et al. (TMM; hypothetical use by Olmecs; 1–82.)
- x 1983 Tisdell, C.A. (DD; Papua New Guinea; hunting & conservation; 14–15.)
- x *1984b Minnegal, M. (DD; Queensland; butchering techniques; archeological site; 15–20.)
- x 1984 Nietschmann, B. (DD; Torres Strait; meat; 645–648.)
- x 1985 Marsh, H. (DD; Queensland; meat; 498.)
- x *1985 McKillop, H.I. (TMM; prehistoric Maya area, Central America; meat, fat, bone; 337–353.)
- x 1985 Rathbun, Woods & Ottenwalder (TMM; Haiti; meat; "3 kinds of meat"; 234–236.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; meat, also used for shark bait; fat, hide, bone; 985, 1009–1011.)
- x 1986 Timm et al. (TI; Ecuador; meat; 155.)
- x 1987 Finger, J. (DD; Queensland; history of oil industry; 3–5.)
- x 1988 Ho, H.C. (DD; Malaysia, Singapore; meat, oil, tears, hide, tusks; 22, 24.)
- x 1988 O'Shea et al. (TMM; Venezuela; meat, oil, hide, bone; "3 kinds of meat"; 291–296.)
- x 1988 Reeves et al. (TS; Sierra Leone; meat, bone; 80–82.)
- x 1989 Leatherwood & Reeves (DD; Sri Lanka; meat, 80, 82, 85–86, 89; dolphin meat used as substitute, 61, 64, 86, 89.)
- x *1989a Preen, A. (DD; Arabian region; meat, 47–52, 66, 96–100, 114–115; oil, hide, 51, 97, 99, 114; tusks, 51; marrow, 114.)
- x 1991b Brown, J.N.B. (DD; Abu Dhabi; meat; 33.)
- x 1991 Fitzpatrick, J. (DD; Torres Strait; sharing of meat; m20.)
- x 1991 Frazier & Mundkur (DD; India; oil; 371.)
- x 1991 O'Shea & Salisbury (TMM; Belize; meat, bones, tourism; 160–161.)
- Ecuador
- 1854 Osculati, C. (TI)
- x *1986 Timm et al. (TI; ecology, distr., & status; 150–156.)
- x 1989 Timm et al. (TI; Siona Indian hunting techniques; 1–7.)
- Egypt (SEE ALSO: Red Sea)
- 1867 Fraas, O.
- x 1875a Owen, R. (*Eotherium aegyptiacum*, n.gen.n.sp.; Eoc.; 100–105.)
- x 1878 Filhol, H. (*Manatus Coulombi*, n.sp.; Eoc.; 124–125.)
- 1899 Studer, T. (Wadi Natrun)
- 1901 Andrews, C.W.
- 1902 Andrews, C.W.
- x 1902b Osborn, H.F. (*Eosiren*; Eoc.; 715.)
- 1903 Blanckenhorn, M.
- 1904 Fraas, E. (Mokattam Hills)
- 1905 Beadnell, H.J.L. (Fayum)
- *1906 Andrews, C.W.
- 1907b Abel, O.
- 1907 Andrews, C.W.
- 1908 Priem, F. (*Protosiren fraasi*; Eoc.)
- x 1910 Woodward, A.S. (m470.)
- 1911 Schlosser, M.
- 1913a Abel, O. (*Eotherium aegyptiacum*; Eoc.)
- *1934b Sickenberg, O.
- x 1948 Deraniyagala, P.E.P. ("sirs.," Olig., Libyan Desert, m15; *Eosiren*, Eoc., 16.)
- 1959 Reinhart, R.H. (*Eotheroides* sp. indet.; Late Eoc.)
- 1962 Said, R.
- 1963 Said, R.
- 1965 Said, R.
- x 1967 Siegfried, P. (*Eotheroides libyca*; Eoc., Fayum; 165–166.)
- 1974 El-Khashab, B.
- 1974 James & Slaughter (Plioc., Wadi el-Natrun)
- 1974 Moustafa, Y.S. (*Eotheroides libyca*; Eoc., Fayum)
- 1974 Vondra, C.F. (Qasr el-Sagha Formation)
- x 1976 Paz & Ilani; (DD; 3 specimens captured & displayed; 74.)
- x 1982 Domning, Morgan & Ray (*Protosiren* n.sp.; Late Eoc.; 55–56, 59.)
- x 1986 Fleagle et al. (unidentified sir.; Olig., Jebel Qatrani Formation; 8–9.)
- x *1992 Gingerich, P.D. (stratigraphy, age, & paleoenvironments of sirs.; Eoc., Mokattam Hills & Fayum, 1, 7, 11, 20–21, 23–24, 33, 35, 40–41, 43–44, 49, 63, 71, 74–77, 79; Olig., Fayum, 67, 77.)
- Embryology and Ontogeny (SEE ALSO: Age Determination; Growth Rates; Teratology)
- x 1809a Cuvier, G. (*Trichechus*; nails, hair, 284; atlas, m308.)
- 1822 Albers, C.F.
- x 1851 Barkow, H.C.L. (DD; nerves & muscles; 119–122.)
- x 1857 Shaw, N. (TM; fetus; nails; m99.)
- x 1869 Marcoy, P. (TI; fetus; 2: 152–153.)
- x 1875 Marcoy, P. (TI; fetus; 2: 190.)
- x 1875 Wilder, B.G. (TI; fetus; 105–106, 108–109, 112–114.)
- x 1885 Ryder, J.A. (flukes & hind limbs; 515–519.)
- x 1887b Baur, G. (supernumerary phalanges; 840.)
- x 1889 Leboucq, H. (DD; nail; 190–192.)

- 1891 Kükenthal, W.
 1894 Turner, W.
 x 1896 Kükenthal, W. (TM; embryonic dentition; 513–526.)
 x 1904 Freund, L. (DD; manus; 364–394.)
 x 1906b Dexler & Freund (DD; nostrils, 54; eyes, 62–63.)
 x *1906c Dexler & Freund (DD; color, 568; hair, 570–571; snout, 577–578; ear, mammae, 579.)
 x 1907 Wilder, B.G. (TI; fetus; 663.)
 x 1908b Freund, L. (DD; bones & cartilages of nasal region; 254–256.)
 x 1908 Wilder, B.G. (TI; fetus; 825.)
 x 1910 Lull, R.S. (flukes & hind limbs; 152–153.)
 x 1912a Matthes, E. (*Trichechus*; ears; 598.)
 1912 Turner, W.
 x *1914a Freund, L. (DD; skeleton; 353–386, pl. 16.)
 1915 Matthes, E.
 x 1923 Kostanecki, K. (TI; cecum & umbilical arteries; 273–276.)
 x 1924b Petit, G. (kidney; 245–246.)
 x 1924c Petit, G. (kidney; 2197–2200.)
 x 1928 Prater, S.H. (DD; lips; 90.)
 x *1931 Sickenberg, O. (retardation of ossification & suture closure, etc.; 412–417, 428–431.)
 1933 Bahrtdt, H.J.
 1934 Genschow, J. (olfactory organs)
 x *1935b Wislocki, G.B. (TM; fetus & placentation; 159–178, pls. 1–7.)
 1937 De Beer, G.R. (skull)
 x 1940 Pocock, R.I. (DD; fusion of cranial sutures, 331, 341; tusks, 331–339; cheek teeth, 339–340.)
 x 1941a Heuvelmans, B. (dentition; 2–8, 14–15.)
 x 1941c Heuvelmans, B. (dentition; 2–6, 10–13, pl. 1.)
 1945 Matthes, E.
 x *1955 Dekeyser, P.L. (*Trichechus*; teeth; 921–922.)
 x 1959 Jones, S. (DD; fetus; 201.)
 1966 Kaiser & Bartone
 x 1969 Robineau, D. (ear region; m26.)
 x *1973 Mitchell, J. (DD; Australia; age determination; 1–23.)
 x 1974 James, P.S.B.R. (DD; India; skeleton; 174–182.)
 x 1974 Spain & Heinsohn (DD; Queensland; cranial allometry; 249–257.)
 x 1975 Spain & Heinsohn (DD; Queensland; size & weight allometry; 159–167.)
 x 1976 Spain et al. (DD; Queensland; cranial allometry; 495–496.)
 1978 Arvy, L.
 x 1978b Domning, D.P. (*Dusisiren jordani*; 68.)
 x 1978 Mitchell, J. (DD; dentition & age determination; 317–348.)
 x *1986 Domning & Hayek (*Trichechus*; ontogenetic skeletal variation; 97–99, 106.)
 x 1986 Watson & Bonde (TML; congenital flipper malformations; 294–301.)
 x 1987 Mossman, H.W. (sir. fetal membranes; 267–270.)
 x 1990 O'Shea & Reep (TML; brain & body size, fusion of cranial sutures; 534–543.)
 x 1991a Domning, D.P. (DD; pelvic bones; ontogenetic variation; 311–316.)
- Endocrinology
 x 1820 Diard & Duvaucel (DD; thymus; 159.)
 x 1820 Raffles, T.S. (DD; thymus; 178.)
 x 1838 Owen, R. (DD; location of thyroid gland; 38.)
 x 1857 Rapp, W.v. (TM; thymus; 93.)
 1872a Murie, J.
 x 1899 Steller, G.W. (HG; thyroid gland; 193.)
 x 1923 Nopcsa, F.v. (iodine & thyroid gland; 358.)
 x *1931 Sickenberg, O. (effects of thyroid & hypophysis on ossification & growth; 417–442.)
 *1938 Oldham et al. (TI; hypophysis; 27–32.)
 1940 Wislocki, G.B.
 x *1942b Fawcett, D.W. (TML; thyroid gland & pachyostosis; 285–287, 304–307.)
 *1945 Hill, W.C.O.
 x 1951 Fernand, V.S.V. (DD; pituitary & adrenal glands; 57–62, pls. 1–2.)
 x 1953 Quiring & Harlan (TM; thyroid, adrenal, pituitary, thymus; 201.)
 1965 Hanström, B. (*Trichechus*; hypophysis)
 1967 Cave & Aumonier (DD; thymus & thyroid gland)
 *1969b Harrison, R.J.
 1975 Ralph, C.L. (pineal gland)
 x 1976 Allen et al. (DD; adrenal & thyroid glands; "pineal absent"; 42, 46.)
 x 1981 Odell et al. (TML; adrenal & thyroid weights; 60, 63.)
 x 1989 Buffrénil & Schoevaert (hypothyroidism & pachyostosis; 2107, 2117–2118.)
 x 1992 Marmontel et al. (TM; corpora lutea; 301, 303.)
- England: SEE Britain
 Environmental Contaminants: SEE Pollution, Effects of Eocene
 x 1849 Gibbes, R.W. (*Manatus*; ?Eoc., ?South Carolina; 193.)
 x 1850 Gibbes, R.W. (*Manatus*; South Carolina; 67–68.)
 x 1855 Owen, R. (*Prorastomus sirenoides*, n.gen.n.sp.; Jamaica; 541.)
 1858 Emmons, E. (North Carolina)
 x 1875a Owen, R. (*Eotherium aegyptiacum*, n.gen.n.sp.; Egypt; 100–105.)
 x 1878 Filhol, H. (*Manatus Coulombi*, n.sp.; Egypt; 124–125.)
 1884 Flower & Garson (Georgia)
 x 1887 Flot, L. ("*Halitherium* n. sp."; ?Eoc., France; 138.)
 x 1902b Osborn, H.F. (*Eosiren*; Egypt; 715.)

- x 1906 Almera, D.J. (*Halitherium*; Spain; 379.)
 1911 Koch, A. (Hungary)
- x 1932 Müllerried, F.K.G. (indeterminate sir.; "Olig.," Mexico; 71-73.)
- x 1941 Kretzoi, M. (*Sirenavus hungaricus*, n.gen.n.sp.; Middle Eoc., Hungary; 146-147, 156.)
 1944 Mottl, M. (Hungary)
 1944 Tulogy, J.
 1946 Richard, M. ("*Eotherium* sp."; Late Eoc., France)
- x 1952a Koenigswald, G.H.R.v. (indeterminate sir.; Java; 610.)
- x 1952 Macfadyen, W.A. (indeterminate sirs.; Middle Eoc., Somalia; 348.)
- x 1953 Kretzoi, M. (indeterminate sir.; Early Eoc., Hungary; 273-277.)
- x 1953 Maldonado-Koerdell, M. (indeterminate sir.; "Olig.," Mexico; 146-148.)
- x 1956 Bataller, J.R. (*Halitherium*; Spain; 25.)
 1956 Marcet-Riba, J. (Spain)
 1959 Farrés & Ramirez (Spain)
 1959 Reinhart, R.H. (*Eotheroides* sp. indet.; Egypt)
 1961 Farrés, F. (Spain)
 1962 Farrés, F. (Spain)
 1963 Said, R. (Egypt)
- x 1964 Siler, W.L. (indeterminate sir.; Middle Eoc., Alabama; 1108.)
- x 1965 Arata & Jackson (indeterminate sirs.; Alabama; 175-176.)
 1965 Balogh & Rónai (Hungary)
- x 1965 Savage, R.J.G. (Middle Eoc., Libya; 91.)
- x 1966 Piccoli, G. (*Prototherium* cf. *veronense*; Priabonian stratotype, Italy; 349-350.)
 1967 Grigorescu, D. (Romania)
 1967 Reguant, S. (Spain)
- x 1967 Siegfried, P. (*Eotheroides libyca*; Egypt; 166.)
 1968 Simons, E.L.
 1969 Bartolomei, G.
- x 1969 Freudenthal, M. (indeterminate sirs.; France; 64-65.)
- x 1969 Voorhies, M.R. ("sir." [actually entelodont] tooth; Late Eoc., Georgia; 93-94.)
- x 1970 Fuchs, H. ("*?Halitherium* sp."; Romania; 1185.)
- x 1970 Pickering, S.M., Jr. ("*Eosiren* sp.?"; Georgia; m20.)
- x 1971 Savage, R.J.G. (Middle Eoc., Libya; 219-220.)
- x 1973 Fuchs, H. (indeterminate sir.; Romania; 71.)
 1974 Moustafa, Y.S. (*Eotheroides libyca*; Egypt)
 1974 Sanders, A.E. (South Carolina)
 1974 Vondra, C.F. (Qasr el-Sagha Formation, Egypt)
 1976 Reinhart, R.H. (Florida; 262, 264-265.)
- x 1977 Bizzarini et al. (*Prototherium veronense*; Late Eoc., Italy; 1-15.)
- x 1977 Kordos, L. (*Paralitherium tarkanyense*, n.gen.n.sp.; Late Eoc., Hungary; 349-367.)
- x 1977 Savage & Tewari (indeterminate sir.; Somali, India; 218.)
- x 1978 Kordos, L. (*Protosiren* cf. *fraasi*; Middle Eoc., Hungary; 288-289.)
 1979 Sahni, A.
- x 1980 Kordos, L. (*Eotheroides*; Middle Eoc., Hungary; 385-397.)
- x 1980 Sahni & Kumar (*Ishatherium subathuensis*, n.gen.n.sp.; Early Eoc., India; 132-135.)
- x 1980 Sahni et al. ("sir."; Early Eoc., India; 270-271.)
- x *1982 Domning, Morgan & Ray (review of worldwide sir. record; 1-69.)
- x 1982 Sereno, P.C. (*Florentinoameghinia*; Early Eoc., Argentina; 1-10.)
- x 1983 Bizzotto, B. (*Prototherium intermedium*, n.sp.; Late Eoc., Italy; 95-99.)
 1984 Nicorici & Popovici
 1988 Fuchs, H. (Romania)
- x 1990 Donovan et al. (*Prorastomus sirenoides*; Middle Eoc., Jamaica; new specimen; 660-662.)
- x 1990 Ivany et al. (*Protosiren*; Middle Eoc., Florida; seagrass community; 244-258.)
 1990 Westgate, J.W. (Texas)
- x 1991 Kumar, K. (*Ishatherium*; India; Ypresian in age; 236.)
- x *1992 Gingerich, P.D. (Egypt; stratigraphy, age, & paleoenvironments of sirs.; 1, 7, 11, 20-21, 23-24, 33, 35, 40-41, 43-44, 49, 63, 71, 74-77, 79.)
- x 1993 Thewissen, J.G.M. (indet. sir.; Kuldana Formation, Pakistan; 125-127.)
- Eosiren* Andrews, 1902
- x *1902 Andrews, C.W. (n.gen.; Late Eoc., Egypt; 293-295.)
- x 1902b Osborn, H.F. (phyletic significance; 715.)
- x 1906 Abel, O. (dentition; 51-52.)
- xD 1915 Hay, O.P. (comp. w/ *Desmostylus*; 384-385, 391.)
- x 1916 Lucas, F.A. (m318.)
- x 1916a Matthew, W.D. (m27; tooth for 28.)
- x 1924 Andrews, C.W. (dentition; m306.)
- x 1927 Hopwood, A.T. (m18.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 423, 471-473, 480-481, 491, 495, 499.)
- x 1941 Kretzoi, M. (in classification; 152, 154, pl. 6.)
- x 1941 Pycraft, W.P. (m328.)
- x 1943 Heuvelmans, B. (m12.)
- x 1945 Simpson, G.G. (syn. of *Eotheroides*; 135.)
- x 1948 Deraniyagala, P.E.P. (Egypt; 16.)
- x 1951 Reinhart, R.H. (syn. of *Eotheroides*; 209.)
- x 1954b Friant, M. (brain; 134.)
 1963 Bertram, G.C.L.
- x 1970 Pickering, S.M., Jr. ("*Eosiren* sp.?"; Eoc., Georgia; m20.)

- x 1978c Domning, D.P. (syn. of *Eotheroides*; m575.)
- x 1982 Kleinschmidt, A. (syn. of *Eotheroides*, 378–379; pelvis, 392.)
- x 1985 Thewissen, J.G.M. (brain fissures; m265.)
- x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 272.)
- Eosiren abeli* Sickenberg, 1934
- *1934b Sickenberg, O. (n.sp.)
- x 1992 Gingerich, P.D. (Egypt; stratigraphic horizon; ?syn. of *Protosiren fraasi*; 71, 75–76.)
- Eosiren fraasi* (Abel, 1907) Schlosser in von Zittel and Schlosser, 1923 (= *Protosiren fraasi*)
- *1923 Zittel & Schlosser (n.comb.)
- x 1938 Zdansky, O. (nomenclature; comp. w/ *Eotherium majus*; 432.)
- Eosiren libyca* Andrews, 1902
- x *1902 Andrews, C.W. (n.gen.n.sp.; Late Eoc., Egypt; 293–295.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 473.)
- *1934b Sickenberg, O.
- 1936 Osborn, H.F.
- x 1938 Zdansky, O. (comp. w/ *Eotherium majus*; 429, 432–433.)
- x 1941 Kretzoi, M. (m152.)
- x 1951 Reinhart, R.H. (m209.)
- x 1953 Kretzoi, M. (m274.)
- x 1967 Siegfried, P. (syn. of *Eotheroides*; hind limb; 165.)
- x 1980 Kordos, L. ("*E. libyca*"; m387, m395.)
- x 1991 Domning & de Buffrénil (pachyosteosclerosis; 360–361.)
- x 1992 Gingerich, P.D. (Egypt; stratigraphic horizon; 20–21, 23, 33, 41, 75–76.)
- x 1992 Thewissen & Domning (m495.)
- Eosiren stromeri* (Sickenberg, 1934) Kordos, 1977
- x *1977 Kordos, L. (n.comb.; comp. w/ *Paralitherium*; 366.)
- x 1991 Domning & de Buffrénil (pachyosteosclerosis; 360–361.)
- Eotherium* Owen, 1875 (*non* Leidy, 1853) (= *Eotheroides*)
- 1874 Murie, J.
- x *1875a Owen, R. (n.gen.; Middle Eoc., Egypt; 100–105.)
- x 1886b Hartlaub, C. (m376–378.)
- x *1899 Palmer, T.S. (replacement name *Eotheroides* proposed; 494.)
- xD 1915 Hay, O.P. (comp. w/ *Desmostylus*; 384–386, 388, 392.)
- x 1916a Matthew, W.D. (m27.)
- x 1924 Andrews, C.W. (dentition; m306.)
- x 1926 Sanielevici, H. (m256.)
- x 1927 Hopwood, A.T. (m18.)
- x 1928 Prater, S.H. (m98.)
- x 1930a Simpson, G.G. (pop. acc.; 46.)
- x 1932a Simpson, G.G. (syn. of *Eotheroides*; m423, 471.)
- *1934b Sickenberg, O.
- x 1941c Heuvelmans, B. (dentition comp. w/ *Dugong*; 6.)
- x 1941 Heuvelmans, M. (m152.)
- x 1943 Heuvelmans, J. (m12.)
- x 1943 Kaltenmark, J. (phylogeny; 16–17, 20.)
- x 1945 Simpson, G.G. (syn. of *Eotherium*; 135.)
- 1946 Richard, M. (Late Eoc., France)
- x 1951 Reinhart, R.H. (syn. of *Eotheroides*; 209.)
- x 1953 Kretzoi, M. (m274.)
- x 1954b Friant, M. (brain; 134.)
- x 1978c Domning, D.P. (syn. of *Eotheroides*; m575.)
- x 1982 Kleinschmidt, A. (syn. of *Eotheroides*, 378–379; pelvis, 391–392.)
- Eotherium abeli* Sickenberg, 1934 (= *Eosiren abeli*)
- x 1931 Sickenberg, O. ("*E[otherium]. (Eosiren) abeli*," nomen nudum; pachyostosis & osteosclerosis; 409, 414.)
- *1934b Sickenberg, O. (n.sp.)
- x 1938 Zdansky, O. (m429, m432.)
- x 1943 Kaltenmark, J. (phylogeny; 16–17, 21.)
- x 1992 Gingerich, P.D. ("*Eotherium (Eosiren) abeli*"; Egypt; stratigraphic horizon; ?syn. of *Protosiren fraasi*; 71, 75–76.)
- Eotherium aegyptiacum* Owen, 1875 (= *Eotheroides aegyptiacum*)
- x *1875a Owen, R. (n.gen.n.sp.; Middle Eoc., Egypt; cranial endocast; 100–105, pl. 3.)
- x 1878 Filhol, H. (comp. w/ *Manatus Coulombi*; 124–125.)
- x 1885a Woodward, H. (m470.)
- x 1891 Flower & Lydekker ("*E. aegyptiacum*"; morphology; 224.)
- x 1902 Andrews, C.W. (comp. w/ *Eosiren libyca*; 293.)
- x 1906 Abel, O. (dentition; 50.)
- *1913a Abel, O. (skull)
- x 1924 Hay, O.P. ("*E. aegyptiacum*"; tooth formula; m3.)
- x 1931 Sickenberg, O. (pachyostosis & osteosclerosis; 409, 411, 414.)
- x 1932a Simpson, G.G. (m473.)
- *1934b Sickenberg, O.
- x 1938 Zdansky, O. (comp. w/ *E. majus*; 429–434.)
- x 1941 Kretzoi, M. (m152.)
- x 1942b Kaltenmark, J. (history of study, 104; m108.)
- x 1943 Kaltenmark, J. (phylogeny; 16–17, 21.)
- x 1969 Robineau, D. (ear region; m30.)
- x 1976 Kordos, L. (m282.)
- x 1978c Domning, D.P. (syn. of *Eotheroides aegyptiacum*; m575.)

- x 1985 Thewissen, J.G.M. (foramen ovale; m273.)
- x 1992 Gingerich, P.D. (Egypt; stratigraphic horizon; 1, 71, 74–76.)
- Eotherium libycum* (Andrews, 1902) Sickenberg, 1934 (= *Eosiren libyca*)
- x 1931 Sickenberg, O. (pachyostosis & osteosclerosis, 408–409, 411, 414; tooth replacement, 429.)
- *1934b Sickenberg, O.
- x 1943 Kaltenmark, J. (phylogeny; 17, 19, 21.)
- x 1951 Reinhart, R.H. (nomenclature; 209.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 12.)
- Eotherium majus* Zdansky, 1938
- x *1938 Zdansky, O. (n.sp.; Middle Eoc., Egypt; 430–434.)
- x 1978c Domning, D.P. (considered probably invalid; 575–576.)
- x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 38, 58.)
- x 1992 Gingerich, P.D. (Egypt; stratigraphic horizon; ?syn. of *Eotheroides aegyptiacum*; 71, 75–76.)
- Eotherium markgrafi* Abel, 1913 (nomen nudum)
- *1913a Abel, O. (nomen nudum; comp. w/ *E. aegyptiacum*)
- 1934b Sickenberg, O. (said to be not based on any known specimen; 41.)
- x 1978c Domning, D.P. (considered nomen nudum; 576.)
- Eotherium stromeri* Sickenberg, 1934 (= *Eosiren stromeri*)
- x 1931 Sickenberg, O. (nomen nudum; pachyostosis & osteosclerosis; 409, 414.)
- *1934b Sickenberg, O. (n.sp.)
- x *1938 Zdansky, O. (m429, m432.)
- x 1942b Kaltenmark, J. (comp. w/ "*Metaxytherium* n. sp."; 108.)
- x 1943 Kaltenmark, J. (phylogeny; 17, 21.)
- x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 38, 58.)
- Eotheroides* Palmer, 1899
- x *1899 Palmer, T.S. (name proposed as replacement for *Eotherium*; 494.)
- x 1930a Simpson, G.G. (pop. acc.; 46.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 423, 462–463, 471–473, 480, 484, 491–492, 495, 499.)
- x 1941 Kretzoi, M. (comp. w/ *Sirenavus*, 149; in classification, 152, 154, pl. 6; name *Masrisiren* proposed for one specimen, 152.)
- x 1942b Kaltenmark, J. (syn. of *Eotherium*; 104.)
- x 1945 Simpson, G.G. (in classification; 135, 251.)
- x 1951 Reinhart, R.H. (m208–209, 211; nomenclature, 209.)
- 1959 Reinhart, R.H.
- x 1966 Kellogg, R. (m65.)
- x 1968 Lemire, M. (m515.)
- x 1969 Voorhies, M.R. (comp. w/ tooth from Georgia; m94.)
- x 1978b Domning, D.P. (dental formula; m4.)
- x 1978c Domning, D.P. (phyletic position & occurrence in Africa; 574–579.)
- x 1979 Tassy, P. (comp. w/ *Moeritherium*; 87.)
- x 1980 Kordos, L. (Middle Eoc., Hungary; 385–397, pls. 1–2.)
- x 1980 Sahni & Kumar (comp. w/ *Ishatherium*; 133–134.)
- x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 8, 37, 57–58, 62.)
- x 1982 Kleinschmidt, A. (distr.; 378–380.)
- x 1982 Sereno, P.C. (comp. w/ *Florentinoameghinia*; 7–9.)
- x *1983 Bizzotto, B. (syn. of *Prototherium*; 100, 105–111.)
- 1983 Kordos, L.
- x 1984 Rainey et al. (dugongid affinities questioned; 587.)
- x 1985a Kordos, L. (Hungary; m314.)
- x 1985 Thewissen, J.G.M. (skull foramina; 268–269, 272.)
- x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 272.)
- x 1990 O'Shea & Reep (brain & body size; 536, 539.)
- Eotheroides abeli* (Sickenberg, 1934) Kordos, 1977 (= *Eosiren abeli*)
- x *1977 Kordos, L. (n.comb.; comp. w/ *Paralitherium*; 366.)
- x 1978c Domning, D.P. (m575.)
- x 1980 Kordos, L. (comp. w/ Hungarian *Eotheroides*; 387, 389, 397.)
- x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 38, 43, 57–58.)
- Eotheroides aegyptiacum* (Owen, 1875) Trouessart, 1905
- *1904-05 Trouessart, E.-L. (n.comb.)
- x 1923a Allen, G.M. (humerus; m233–234.)
- x 1925 Kellogg, R. (comp. w/ *Metaxytherium jordani*; 65.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 473–474.)
- x 1951 Reinhart, R.H. (m207, 210.)
- x 1953 Kretzoi, M. (m274.)
- x 1969 Robineau, D. (ear region; m30.)
- x *1977 Kordos, L. ("*E. aegyptiacus*"; comp. w/ *Paralitherium*; 366.)
- x 1978c Domning, D.P. (phyletic position & occurrence in Africa; 575.)
- x 1980 Kordos, L. (comp. w/ Hungarian *Eotheroides*; 387, 389, 397.)

- x 1982b Domning, D.P. (possibly ancestral to trichechids; 600.)
- x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 19, 36–38, 47, 52, 57, 59.)
- 1985 Kozawa, Y. ("*Eosiren aegypticam*")
- x 1991 Domning & de Buffrénil (pachyosteosclerosis; 360.)
- x 1992 Gingerich, P.D. (Egypt; stratigraphic horizon; 1, 11, 74–77.)
- x 1992 Thewissen & Domning (character states; 495, 503.)
- Eotheroides coulombi* (Filhol, 1878) Trouessart, 1905 (= *Eotheroides aegyptiacum*)
- *1904–
1905 Trouessart, E.-L. (n.comb.)
- Eotheroides libycum* (Andrews, 1902) Reinhart, 1951 (= *Eosiren libyca*)
- x 1951 Reinhart, R.H. ("*E. libyca*," n.comb.; m209.)
- x *1967 Siegfried, P. (femur; 165–172, pl. 17.)
- x 1973 Fuchs, H. (comp. w/ Romanian sir.; 72–73, 75, 77.)
- x *1977 Kordos, L. ("*E. libycus*"; comp. w/ *Paralitherium*; 366.)
- x 1978c Domning, D.P. ("*E. libyca*"; m576.)
- x 1980 Kordos, L. (comp. w/ Hungarian *Eotheroides*; 387–389, 396–397.)
- x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 30, 38, 41, 57–59.)
- x 1983 Bizzotto, B. (comp. w/ *Prototherium*; 102, 106–109.)
- x 1986 Domning et al. (m37–39.)
- x 1987 Domning & Thomas (comp. w/ *Halitherium* & *Metaxytherium*; 223–224.)
- Eotheroides stromeri* (Sickenberg, 1934) Domning, 1978 (= *Eosiren stromeri*)
- x *1978c Domning, D.P. (n.comb.; m576.)
- x 1980 Kordos, L. (nature of type material; 387.)
- Eotheroidinae Kretzoi, 1941 (subfamily)
- x *1941 Kretzoi, M. ("Eotherioidinae," new subfamily; 154.)
- Europe (SEE ALSO: Austria; Belgium; Britain; France; Germany; Hungary; Italy; Malta; Mediterranean Sea; Netherlands; Portugal; Romania; Russia; Spain; Switzerland)
- x 1784 Mayer, J. (fossil "*Mannatus*"; Czechoslovakia; 262–263.)
- x 1847b Gervais, F.L.P. (summ. of sir. occurrences; 208–210.)
- x 1875a Owen, R. (various sirs.; 104–105.)
- *1920 Depéret & Roman (review)
- 1938 Šuklje, F. (Yugoslavia)
- x 1949 Thenius, E. (*Thalattosiren petersi*; Czechoslovakia; 162–163.)
- x 1952 Thenius, E. (*Thalattosiren petersi*; Mioc., Czechoslovakia; 33–36, 109–113.)
- 1976 Mchedlidze, G.A. (Black & Caspian Seas)
- 1976 Rabeder & Steininger (Olig. & Mioc., Central Paratethys)
- 1977 Radwanski, A. (Poland)
- x 1985a Domning, D.P. (utility of sirs. in stratigraphic correlation; 183.)
- x 1991 Czyzewska & Radwanski (*Thalattosiren*; Middle Mioc., Poland; 184–185, 188.)
- 1991 Wolsan, M. (*Thalattosiren*; Middle Mioc., Poland)
- Excretion and Defecation (SEE ALSO: Salinity Tolerance; Urogenital System)
- x 1857 Shaw, N. (TS; feces; m99.)
- x 1875 Chapman, H.C. (TMM; in capt.; constipation; 460–461.)
- x *1906b Dexler & Freund (DD, 52, 57–58; *Trichechus*, 57–58.)
- x 1908b Gudernatsch, J.F. (TML; in capt.; feces; 228.)
- x 1924–
1925 Vosseler, J. (TI; in capt.; flatulence, feces, 127, 131–132; urination, 128; apparently bloody feces, 177.)
- x 1959 Jones, S. (DD; in capt.; 199–200.)
- x *1961 Jonklaas, R. (DD; 4.)
- x *1963 Hofmeister, M. (?TMM; in capt.; 12.)
- x 1966 Kinzer, J. (TS; feces; 48.)
- x 1966 Thomas, D. (DD; India; floating feces; 80.)
- x 1967 Oke, V.R. (DD; in capt.; m221.)
- x 1978 Anderson & Birtles (DD; feces; 10–11, 16–17.)
- x 1979 Hartman, D.S. (TML; Florida; 92–93; flatus, regurgitation, 93, 95.)
- x 1980 Irvine et al. (TML; in capt.; urine values; 3, 6.)
- x 1980 Kataoka & Asano (DD: in capt.; soft, floating feces; 270.)
- x 1981 Best, R.C. (*Trichechus*; diarrhea of calves on powdered milk formula; 21.)
- x 1981 Kataoka & Asano (DD: in capt.; soft, floating feces; 201.)
- x 1981 Zeiller, W. (TML; in capt.; hard feces of calf cured with mineral oil; 106.)
- x 1982 Best, Ribeiro et al. (TI; in capt.; flatulence & loose stools while on artificial formula with lactose; 265.)
- x 1983 Best, R.C. (TI; production of feces while fasting; 61–62.)
- x 1983 Gallivan et al. (TI; in capt.; 2–3-week passage rate of swallowed transmitters; 256.)

- x 1984 Lomolino & Ewel (TML; in capt.; feces; 6-day passage rate; 176–177.)
- x 1986 Gallivan & Best (TI; in capt.; 5–9-day passage rate; 554, 556.)
- Felsinotherium* Capellini, 1872 (= *Metaxytherium*)
- x 1865 Capellini, G. (nomen nudum; 281–282.)
- *1872 Capellini, G. (n.gen.; Plioc., Italy)
- x 1874 Flower, W.H. (m5.)
- x 1878a Zigno, A. de (Italy, 67–70; comp. w/ *Halitherium*, 69.)
- x 1886b Hartlaub, C. (m376.)
- x 1887 Flot, L. (considered intermediate between *Prohalicore* & *Dugong*; 137–138.)
- x 1889b Dollo, L. (comp. w/ *Miosiren*; 416, 418–419, 421.)
- x 1891 Flower & Lydekker (syn. of *Halitherium*; 223.)
- *1904a Abel, O.
- x 1906 Abel, O. (dentition; 51, 60.)
- x 1923a Allen, G.M. (vertebrae; 236–237.)
- x 1923 Nopcsa, F.v. (pachyostosis; m358.)
- x 1924 Andrews, C.W. (dentition; m306.)
- x 1927 Hopwood, A.T. (m21.)
- x 1929b Kellogg, R. (m1.)
- x 1931 Sickenberg, O. (pachyostosis & osteosclerosis; 409, 415.)
- x 1941 Kretzoi, M. (in classification; 152–155, pl. 6.)
- x 1942b Kaltenmark, J. (history of study; 103–105.)
- x 1943 Kaltenmark, J. (phylogeny; 19–20.)
- x 1945 Simpson, G.G. (in classification; 135, 251.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 438–441.)
- x 1952 Thenius, E. (comp. w/ *Thalattosiren*; 112.)
- x *1966 Kellogg, R. (history of name, 68, 70; comp. w/ *Metaxytherium calvertense*, 72–73.)
- x 1966 Pascual, R. (comp. w/ Mioc. tooth from Argentina; m242.)
- x 1971b Domning, D.P. (m217.)
- x 1971 Ginsburg & Janvier (comp. w/ *Metaxytherium medium*; 184, 186.)
- x 1974 Domning, D.P. (m8.)
- x *1974 Fondi & Pacini (syn. of *Metaxytherium*; 37, 45–47.)
- 1976 Reinhart, R.H. (syn. of *Metaxytherium*)
- x 1978c Domning, D.P. (syn. of *Metaxytherium*; m577.)
- x 1982c Domning, D.P. (syn. of *Metaxytherium*; m30.)
- x 1982 Kleinschmidt, A. (m378–380.)
- x 1987 Domning & Thomas (syn. of *Metaxytherium*; 207.)
- Felsinotherium alleni* (Simpson, 1932) Kellogg, 1966 (= *Halitherium alleni*)
- x *1966 Kellogg, R. (n.comb.; 91–92.)
- x 1972 Varona, L.S. (comp. w/ *Metaxytherium riveroi*; 7.)
- Felsinotherium floridanum* (Hay, 1922) Simpson, 1932 (= *Metaxytherium floridanum*)
- x *1932a Simpson, G.G. (n.comb.; 447–451, 453.)
- x 1941 Gregory, J.T. (comp. w/ *F. ossivallense*; 33–34, 40.)
- x 1988 Domning, D.P. (syn. of *Metaxytherium floridanum*; 396, 399.)
- Felsinotherium forestii* Capellini, 1872 (= *Metaxytherium subapenninum*)
- *1872 Capellini, G. (n.gen.n.sp.; Plioc., Italy)
- x 1875a Owen, R. (brain; 102, 104.)
- x 1875b Owen, R. (comp. w/ *Prorastomus*; 559–561, 564–567.)
- 1876 Lawley, R.
- x 1877 Lawley, R. (near Volterra, Italy; 341–342.)
- x 1878a Zigno, A. de (review; 67, 70.)
- x 1880 Delfortrie, E. (comp. w/ *Rytiodus*; 137–139.)
- x 1885a Woodward, H. (m470.)
- x 1895 Depéret, C. (m409.)
- x 1906 Abel, O. (dentition; 60.)
- x 1914 Depéret, C. (comp. w/ *F. Serresi*; 1859–1860.)
- x 1926 Sanielevici, H. (diet & tooth morphology; 254–255.)
- x 1931 Sickenberg, O. (suppression of replacement pre-molars; 429.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 433, 451, 453–454, 456, 458–459, 464, 475, 478–479, 495, 499.)
- x 1941 Gregory, J.T. (comp. w/ *F. ossivallense*; 36–39.)
- x 1941c Heuvelmans, B. (dentition comp. w/ *Dugong*; 6.)
- x 1941 Kretzoi, M. (in classification; m152–153.)
- x 1942b Kaltenmark, J. (m103.)
- x 1943 Kaltenmark, J. (phylogeny; 21.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 438–441.)
- x 1954 Ennouchi, E. (comp. w/ Moroccan *F. cf. serresi*; m82.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 68.)
- x 1966 Kellogg, R. (review; 68, 70.)
- x *1974 Fondi & Pacini (referred to *Metaxytherium*; 37, 45–47.)
- x 1987 Bajpai et al. (comp. w/ *Metaxytherium kachchense*; 22.)
- 1988a Pilleri, G.
- Felsinotherium gastaldi* de Zigno, 1878 (= *Metaxytherium subapenninum*)
- xv 1878a Zigno, A. de (“*Felsinotherium* n. sp.”; review; 68, 70.)
- *1878b Zigno, A. de (n.sp.; Plioc., Italy)
- 1879 Zigno, A. de

- x 1886 Portis, A. (notes single known occurrence; 357–358, 360.)
- x 1895 Depéret, C. (m409.)
- x 1932a Simpson, G.G. (m479.)
- x 1966 Kellogg, R. (comp. w/ *Metaxytherium ortegense*; 93.)
- x 1974 Fondi & Pacini (syn. of *Metaxytherium forestii*; m37.)
- x 1987 Canocchi, D. (m499.)
- 1988a Pilleri, G.
- Felsinootherium gervaisi* Capellini, 1872 (= *Metaxytherium subapenninum*)
- *1872 Capellini, G. (n.sp.; Plioc., Italy)
- 1876 Lawley, R.
- x 1878a Zigno, A. de (review; 67, 70.)
- x 1885a Woodward, H. (m470.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 68.)
- x 1974 Fondi & Pacini (syn. of *Metaxytherium forestii*; m37.)
- 1980 Azzaroli, A.
- x 1982 Azzaroli et al. (considered Late Ruscinian [Plioc.] in age; 56, 58.)
- Felsinootherium gunteri* Simpson, 1932 (nomen nudum; lapsus for *Felsinootherium ossivallense*)
- x 1932a Simpson, G.G. (nomen nudum; lapsus for *F. ossivallense*; m449.)
- 1976 Reinhart, R.H.
- x 1988 Domning, D.P. (referred to *Metaxytherium floridanum*; 399.)
- Felsinootherium ossivallense* Simpson, 1932 (= *Metaxytherium floridanum*)
- x *1932a Simpson, G.G. (n.sp.; “Plioc.” [actually Mioc.], Florida; 446–456.)
- x *1941 Gregory, J.T. (rostrum; 33–40, 2 pls.)
- x 1966 Kellogg, R. (m66; comp. w/ *Metaxytherium* & *Felsinootherium* spp., 68; comp. w/ *M. calvertense*, 79.)
- x 1974 Fondi & Pacini (comp. w/ *Metaxytherium forestii*; 44–46.)
- x *1988 Domning, D.P. (referred to *Metaxytherium floridanum*; 396, 399.)
- Felsinootherium serresii* (Gervais, 1849) de Zigno, 1878 (= *Metaxytherium serresii*)
- *1878b Zigno, A. de (n.comb.)
- x 1886 Portis, A. (?syn. of *F. subapenninum*; m356.)
- x 1914 Depéret, C. (reconstruction of skeleton; 1858–1862.)
- *1920 Depéret & Roman
- x 1925 Kellogg, R. (comp. w/ *Metaxytherium jordani*; 58, 61–64, 66–67.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 431–432, 435, 440, 443, 451, 453–454, 458–459, 463, 468–469, 475, 478–480.)
- x 1941 Gregory, J.T. (comp. w/ *F. ossivallense*; 36–40.)
- x 1941 Kretzoi, M. (in classification; m152.)
- x 1942b Kaltenmark, J. (m103.)
- x 1943 Kaltenmark, J. (phylogeny; 21.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 439–441.)
- x 1954 Ennouchi, E. (“*F. cf. serresii*”; Plioc., Morocco; 77, 79–82.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 65, 67, 69, 72.)
- x *1966 Kellogg, R. (review, 68, 70; comp. w/ *Metaxytherium calvertense*, 73, 78, 82, 84, 88; comp. w/ *F. alleni*, 91; comp. w/ *M. ortegense*, 93.)
- x 1974 Fondi & Pacini (comp. w/ *Metaxytherium forestii*; 37, 45–47.)
- x 1977 Hooijer, D.A. (comp. w/ *Metaxytherium cf. medium*; 2–3, 8–9, 11–12.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 12.)
- x 1982 Azzaroli et al. (m58.)
- x 1987 Domning & Thomas (syn. of *Metaxytherium serresii*; 207, 210.)
- Felsinootherium subalpinum* Issel, 1910 (= *Metaxytherium subapenninum*)
- *1910 Issel, A. (?lapsus for *F. subapenninum*)
- Felsinootherium subapenninum* (Bruno, 1839) de Zigno, 1878 (= *Metaxytherium subapenninum*)
- x *1878a Zigno, A. de (n.comb.; 70.)
- x 1886 Portis, A. (summary of Italian records; 356–357, 359–360.)
- x 1895 Depéret, C. (“*F. subapenninicum*”; comp. w/ *Metaxytherium krahuletzii*; 409–410.)
- 1910 Issel, A.
- x 1912 Issel, A. (“*F. subapenninum*”; humerus; 119–121, 2 pls.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 451, 453, 479.)
- Fiction (SEE ALSO: Children’s Literature)
- 1851 Melville, H.
- 1869 Verne, J.
- 1875 Verne, J.
- 1894 Kipling, R. (HG)
- 1945 Bruff, N.
- 1956 Laye, C.
- 1972 Norris, H.T.
- x 1973 Scheffer, V.B. (HG; Bering Is.; 64–65.)

- x 1978 Isham, C.H. (TML; Florida; children's story; [1-14].)
- Florentinoameghinia* Simpson, 1932 (Mammalia *incertae sedis*)
- x 1980 McKenna, M.C. (possibly a sir.; 66.)
- x *1982 Sereno, P.C. (redescribed & referred to *Sirenia*; 1-10.)
- Florentinoameghinia mystica* Simpson, 1932 (Mammalia *incertae sedis*)
- x *1982 Sereno, P.C. (redescribed & referred to *Sirenia*; 1-10.)
- Florida
- 1575 SEE Fontaneda, H., 1854.
- x 1791 Bartram, W. (TML; hunting by Indians; 231-232.)
- 1822 Hackley, R.S.
- x 1824 Harlan, R. (TML; hunting; 392.)
- x 1825a Harlan, R. (TML; hunting; 277.)
- x 1833 Shepard, C.U. (*Trichechus*; ?Pleist., Suwannee Spring; 164.)
- 1837 Williams, J.L.
- x 1846 Allen, J.H. (*Manatus*; ?Pleist., Tampa Bay; 41.)
- x 1869 Brinton, D.G. (TML; Indian R.; 50-51.)
- 1871 Allen, J.A.
- 1872 Maynard, C.J.
- 1873 Jordan, T.
- x 1874a Anon. (TML; St. Augustine; 276.)
- x 1874b Anon. (TML; gen. acc.; escape behavior; 446.)
- 1875 Wyman, J.
- 1876 Rambler (TML; Jupiter; hunting)
- x 1877 De Pourtales, L.F. (*Trichechus*; dredged bone fragments & distr. in common with West Indies; 144.)
- x 1880 Le Baron, J.F. (TML; distr., hunting; 1005-1006.)
- 1882 Barber, E.A. (mound pipes, ?manatee effigies)
- 1883 Maynard, C.J.
- 1884 Henshall, J.A.
- x *1884b True, F.W. (TML; distr.; 114-115, 122-123.)
- 1885 Canova, A.
- x 1889 Leidy, J. (*Manatus antiquus*; m27.)
- 1891 Clarke, S.F.
- x 1891 Stuart, H.V. (TML; sold as beef; 137.)
- x 1892 Wright, J.McN. (TML; Santa Lucia R.; 294-296.)
- 1893 Anon.
- 1893 Chobee, O.K. (TML)
- x 1895 Bangs, O. (TML; Indian R.; 783-787.)
- 1896c Anon.
- 1896 Cory, C.B.
- x 1898 Anon. (TML; hunting by Seminole Indians; 102.)
- 1901 Wack
- 1902 Anon.
- x 1905 Townsend, C.H. (TML; Lake Worth; capture; 97.)
- x 1907 Dimock, A.W. (TML; capture; 848-853.)
- x 1908b Gudernatsch, J.F. (TML; distr. & protective legislation; 233.)
- 1909 Dimock & Dimock (TML)
- x 1909 Graham, S.C. (TML; in capt., Indian R.; 413.)
- x 1910 Packard, W. (TML; St. Lucie & Indian Rs.; 144-145.)
- x 1913 Matson & Sanford (fossil "manatees" [*Metaxytherium floridanum*]; Bone Valley; m146.)
- 1914 Brown, W.P.
- x 1915 Matson, G.C. (fossil "manatee" [*Metaxytherium floridanum*]; pl. 12.)
- x 1916 Sellards, E.H. (TM; Pleist.; 104.)
- 1917 Brown, W.P. (TML)
- x 1917 Fairchild, D. (TML; used for food; 338-339, 342-345.)
- x 1919 Hay, O.P. ("*Trichechus antiquus*?"; ?Pleist.; 109.)
- x 1919 Safford, W.E. (TML; Miami area; 423-424.)
- x *1922a Hay, O.P. (*Metaxytherium floridanum*, n.sp.; 1-4.)
- x 1922 Swanton, J.R. (TML; hunting by Indians; 389.)
- x 1923a Allen, G.M. (*Metaxytherium floridanum*; 232-238, pl. 26.)
- x 1929a Simpson, G.G. (*Trichechus*; Pleist.; 564.)
- x 1929c Simpson, G.G. (fossil sirs. [*Hesperosiren*]; Mioc., Quincy; 511, 518.)
- 1930b Simpson, G.G.
- x *1932a Simpson, G.G. (review of fossil sirs.; *Hesperosiren crataegensis*, n.gen.n.sp., Mioc.; *Felsino-therium ossivallense*, n.sp., "Plioc." [actually Mioc.]; 425-427, 445-448, 470.)
- x 1939 Gut, H.J. (*Trichechus*; Pleist.; 50-53.)
- x 1941 Gregory, J.T. (*Felsino-therium ossivallense*; rostrum; 33-40, 2 pls.)
- x 1941a Gunter, G. (TML; 60, 64.)
- x 1941 Hamilton, W.J., Jr. (TML; Lee Co.; 687, 690-691.)
- x 1942 Gunter, G. (TML; 89-90.)
- 1943 Bartram, W.?
- x 1943 Krumholz, L.A. (TML; 272-273.)
- x 1944 Barbour, T. (TML; Miami area; 98-99, 166-167.)
- x 1946 Moore, J.C. (TML; Putnam Co.; 58.)
- x 1946 Swanton, J.R. (TML; hunting by Indians; 250, 282, 297-298, 329.)
- x 1947 Harwood, K. (TML; in capt., Miami; pop. acc.; 50, 89.)
- x 1948 Cahalane, V.H. (TML; Everglades; 258.)
- x 1949 Sprunt, A., Jr. (TML; pop. acc.; 286-288, 337.)
- x 1949 Trumbull, S. (TML; status; 337.)
- x *1951a Moore, J.C. (TML; range; 1-19.)
- x *1951b Moore, J.C. (TML; Everglades; 22-36.)
- x 1952 Anon. (TML; in capt.; pop. acc.; 129-130.)
- x *1953 Moore, J.C. (TML; distr.; 120-122, 156.)
- x 1953 Quiring & Harlan (TML; Miami; killed for dissection; 192.)

- x 1954 Lawrence, J.E. (TML; pop. acc.; 401-404.)
- x 1955 Severin, K. (TML; in capt.; pop. acc.; 147-149.)
- x 1957 Kellogg & Whitmore (*Hesperosiren*; paleoecology; 1022.)
- x 1958 Fichter, G.S. (TML; status; pop. acc.; 31-35.)
- x 1959 Kellogg, R. ("manatee" [*Metaxytherium florida-num*]; Mioc., Bone Valley; m6.)
- x 1960 Hutton & Sogandares (TML; trematode *Chiorchis fabaceus*; m290.)
- 1960 Ledbetter, C.S.
- 1963 Fix, J. (TML)
- x 1964a Anon. (TML; weed control; 29-30.)
- x 1964 Hume, A.G. (TML; parasite *Harpacticus pulex*; 517-518, 528.)
- x 1964 Lapham, L.H. (TML; weed control; 38-39.)
- x 1964 Moore, J.C. (TML; injuries by boats; pop. acc.; 7-8.)
- 1964 Stroud, R.H.
- x 1965 Layne, J.N. (TML; mortality, distr., migrations; 166-168.)
- x 1966 Kellogg, R. ("sir." [actually cetacean] tusk; ?Mioc.; 78.)
- x 1967 Anon. (TML; weed control; pop. acc.; 33-35.)
- x 1967 Browder, J. (TML; conservation & weed control; 3-5, 34.)
- x 1967 Truslow & Vosburgh (TML; Everglades; 537-538.)
- x 1968 Betz, J.J. (TML; manatee-farming scheme, ca. 1893; 204-209.)
- x 1968 Olsen, S.J. (*Halitherium* & indeterminate sirs.; Mioc., northern Florida; 129-130, 133-134.)
- x 1969 Hartman, D.S. (TML; behavior; gen. acc.; 342-353.)
- 1969 Lyons, E. (TML)
- 1970 Barada, B.
- 1970 Radhakrishnan & Bradley (TML; in capt.; parasites)
- x 1971a Barada, B. (TML; Crystal R.; pop. acc.; 18-23.)
- 1971b Barada, B.
- 1971 Hartman, D.S.
- x 1971 Reinhart, R.H. (fossil & Recent sirs.; pop. acc.; 7-8.)
- x 1972 Anon. (TML; porpoises "playing" with manatee; 4.)
- x 1972a Hartman, D.S. (TML; status & behavior; pop. acc.; 20-22.)
- 1973 O'Keefe, M.T. (TML; Blue Spring; pop. acc.)
- x 1974a Anon. (Blue Spring; manatee refuge established; 10.)
- 1974 Caldwell, D.K.
- x 1974 Domning, D.P. (sir. fossil record, Eoc.-Pleist.; m7-8.)
- x *1974a Hartman, D.S. (TML; distr., status & conservation; 1-46, 62-247.)
- 1974 Proby, K.H.
- 1974 Stephens, W.H., III (TML; pop. acc.)
- x 1974 Webb, S.D. (TM; Pleist.; 18.)
- x 1975a Anon. (manatee research laboratory, Gainesville; 12-13.)
- x 1975b Anon. (TML; conceived & born in capt., Miami; 6-7.)
- x 1975c Anon. (TML; Everglades; "bloated" manatees sighted; 5.)
- 1975 Campbell, H.W.
- x 1975 Forrester et al. (TML; human-induced pathology; 566-568.)
- x 1975 Lynd, W. (TML; Miami; rescue & rehabilitation; 28-29.)
- 1975 Odell, D.K.
- x 1975 Weber, T., Jr. (TML; harpooning from bridges; 66-67.)
- 1976d Anon.
- x 1976 Campbell, H.W. (TML; gen. acc.; 1, 3-6.)
- 1976 Carr, A.
- x 1976 Collard et al. (TML; Pensacola Bay; 48.)
- 1976 Furlow, L.T. (TML)
- x 1976 Odell, D.K. (TML; southern Florida; aerial survey; 203-212.)
- x 1976 Reed, J. (TML; in artificial Lake Ponte Vedra; m12.)
- D *1976 Reinhart, R.H. (fossil sirs. & *Desmostylus*)
- x 1976 Reynolds, J.E., III (TML; behavior, popular misconceptions, & conservation; 209-214.)
- 1976 Stewart, R. (TML; Blue Spring; pop. acc.)
- x 1976 Webb, S.D. (*Trichechus*; immigration in Late Blancan [Plioc.]; 221, 223, 226.)
- x 1976 Wray, P. (TML; pop. acc.; 13-15.)
- x 1977 Campbell & Irvine (TML; feeding ecology; 249-251.)
- x 1977 O'Keefe, M.T. (TML; Crystal R.; pop. acc.; 65, 67.)
- 1978b Finnley, D.
- 1978c Finnley, D.
- x 1978 Harper, H. (TML; Merritt Is.; release of captives; 12.)
- x *1978 Irvine & Campbell (TML; aerial census; 613-617.)
- 1979 Barada, B. (TML)
- x 1979 Barrett, S.K. (TML; southeastern Florida; mortalities in flood-control dams; 26.)
- 1979 Carr, A., III (TML; conservation)
- x 1979 Forrester et al. (TML; parasites; 5.)
- x 1979 Harper, H. (TML; Blue Spring; news reporting; 16.)
- x *1979 Hartman, D.S. (TML; ecology & behavior; i-viii, 1-153.)
- x 1979 Leatherwood, S. (TML; Indian & Banana Rs.; aerial survey; 47-59.)

- 1979 Leccese, M. (TML; refuges established)
- 1979 McNulty, F.
- x 1979 Odell & Reynolds (TML; southern Florida; mortality; 572-577.)
- 1979 Odell, D.K. (TML; Everglades National Park)
- x 1979 Reynolds, J.E., III (TML; behavior; pop. acc.; 44-53.)
- 1979 Tanglely, L. (TML; pop. acc.)
- x 1979 Twiss, J.R., Jr. (TML; conservation; pop. acc.; 10-17.)
- 1979 Webb, S.D.
- x 1980 Abrahamson, D. (TML; Crystal R.; pop. acc.; 92-94, 96, 98-99, 104.)
- x 1980a Anon. (TML; status; pop. acc.; 49.)
- x 1980b Anon. (TML; pop. acc.; 97-98, 100.)
- 1980c Anon.
- 1980 Blount, S. (TML; Crystal R.; pop. acc.)
- x 1980 Cumbaa, S.L. (TML; at archeological sites; 6, 8-9.)
- 1980 Finnley, D. (TML; Merritt Is. & Chassahowitzka)
- 1980 Harper, H. (TML; mortality)
- 1980 Hill, K. (TML)
- x 1980 Irvine et al. (TML; clinical parameters; 2-10.)
- 1980 Kirshenbaum, J.
- 1980 Patton, G.W. (TML; Tampa Bay)
- 1980 Raloff, J.
- x 1980a Sleeper, B. (TML; pop. acc.; 42-47.)
- x 1980 Telander, R. (TML; pop. acc.; 28-35.)
- 1980 Wolfe, P. (TML; Crystal R.; pop. acc.)
- x 1981 Asper & Searles (TML; in capt., Orlando; husbandry; 121-127.)
- x 1981 Beck et al. (TML; mortality, 1978; 76-85.)
- x 1981a Beusse et al. (TML; mortality, 1974-77; 98-101.)
- x 1981b Beusse et al. (TML; treatment of injuries; 111-120.)
- x 1981 Bingham, B. (TML; drinking fresh water; pop. acc.; 90-91.)
- x *1981 Brownell & Ralls (TML; workshop proceedings; 1-154.)
- x *1981 Brownell, Ralls & Reeves (TML; review; 3-16.)
- x 1981 Campbell & Irvine (TML; cold mortality, 1976-77; 86-91.)
- x 1981 Cardeilhac et al. (TML; captive rearing of orphans; 141.)
- x 1981 Irvine et al. (TML; carcass salvage & mortality, 1974-77; 67-75.)
- x 1981 Jenkins, R.L. (TML; in capt., St. Augustine; husbandry; 128-130.)
- x 1981 Odell et al. (TML; organ weights & sexual maturity; 52-53.)
- x 1981 Powell & Waldron (TML; use of Blue Spring & St. Johns R.; 41-51.)
- x 1981 Powell, J.A., Jr. (TML; use of Crystal R.; 33-40.)
- x 1981a Reynolds, J.E., III (TML; Blue Lagoon, Miami; behavior; 233-242.)
- x *1981b Reynolds, J.E., III (TML; Blue Lagoon, Miami; social behavior; 431-451.)
- x 1981c Reynolds, J.E., III (TML; Blue Lagoon, Miami; behavior & effects of human activities; 25-32.)
- x 1981 Rose, P.M. (TML; aerial survey at power plants, 1977-78; 22-24.)
- 1981 Shane, S.H. (TML; Brevard Co.; use of power-plant effluents)
- x 1981 Sleeper, B. (TML; pop. acc.; 16-20.)
- x 1981 Webb et al. (*Metaxytherium*; Late Mioc., Love Bone Bed; 517, 521, 535.)
- x 1981 Zeiller, W. (TML; in capt., Miami; husbandry; 103-110.)
- x 1982b Anon. (fossil sir. rib dredged off Clearwater; 11.)
- x 1982 Beck et al. (TML; analysis of propeller wounds; 531-535.)
- x 1982 Bengtson, J.L. (TML; St. Johns R.; ecology & behavior; 4668.)
- x 1982 Bonde, R.K. (TML; accidental mortality; pop. acc.; 3-5.)
- x 1982 Bradford, D. (TML; conservation; public opinion survey; 9.)
- x 1982 Dick, T.M. (TML; pop. acc.; 19-22.)
- x 1982b Domning, D.P. (*Trichechus* sp., Pleist., 604-605; TML, quartz sand & tooth wear, 615-616.)
- x *1982 Domning, Morgan & Ray (*Protosiren* sp. & other Eoc. sirs., 4, 6, 9-11, 17-18; TM, Pleist., Waccasassa R., 18.)
- x *1982 Eberhardt, L.L. (TML; censusing methods; 1-18.)
- x 1982 Fletemeyer, J. (TML; sonar monitoring; 296-299.)
- 1982 Iker, E.
- x 1982 Irvine et al. (TML; western peninsular Florida; aerial surveys; 621-630.)
- x 1982 Medway, Bruss et al. (TML; Blue Spring; blood serum osmolality & salinity; 231-232.)
- x 1982 Michelson, R.C. (TML; Banana & Indian Rs.; automated radiotracking; 79-85.)
- 1982a O'Keefe, M.T. (TML; pop. acc.)
- 1982b O'Keefe, M.T. (TML; in capt.; pop. acc.)
- x 1982 Rattner, D. (TML; pop. acc.; 29-31.)
- 1982 Reed, N.P. (TML; pop. acc.)
- 1982 Reynolds & Odell (TML; pop. acc.)
- x 1982 Ridgway, B. (cf. *Halianassa*; Middle Mioc., St. Petersburg; 7, 13, 15.)
- x 1982 Scott & Powell (TML; St. Johns R.; commensal feeding by heron; 215-216.)
- 1982 Stewart, V.N. (TML)
- x 1982 Thiel, R. (TML; pop. acc.; 4-7.)
- x 1982 Watterlond, M. (TML; pop. acc.; 94, 96.)
- 1983 Anon. (TML; pop. acc.)
- 1983 Barile et al. (TML; conservation)
- x 1983 Bengtson, J.L. (TML; Blue Spring; food consumption in wild; 1186-1192.)
- x 1983 Buergelt & Bonde (TML; toxoplasmic meningoencephalitis; 1294-1296.)

- 1983 Faulkner, D.
- x 1983 Gluckman & Hamann (list of laws & regulations relevant to manatees; 174-184.)
- x 1983a Gluckman, D. (laws & educational programs regarding manatees; 233-252.)
- x 1983b Gluckman, D. (laws re: water quality & weed control; 253-273.)
- x 1983c Gluckman, D. (manatee habitat acquisition programs; 274-301.)
- x 1983d Gluckman, D. (National Environmental Policy Act & manatee protection; 317-320.)
- x 1983a Hamann, R. (laws re: marina & dock construction & dredging; 185-232.)
- x 1983b Hamann, R. (laws re: spring flow at manatee winter refugia; 302-309.)
- x 1983c Hamann, R. (U.S. Endangered Species Act, Marine Mammal Protection Act & manatee protection; 310-316.)
- x 1983 Irvine, A.B. (TML; metabolism & distr.; 316, 328-331.)
- x 1983 Kinnaid & Valade (TML; Jacksonville; use of power plants; 1-24.)
- x *1983a Kinnaid, M.F. (TML; northeastern Florida; aerial census; 1-56.)
- x 1983b Kinnaid, M.F. (TML; strategies to reduce boat-related mortality; 1-19.)
- x *1983c Kinnaid, M.F. (TML; Brevard Co. & lower St. Johns R.; boat mortality; 1-41.)
- x *1983 Kochman et al. (TML; Crystal R.; temporal & spatial distr.; 69-124.)
- 1983 MacDougall, W.L.
- x 1983 Morgan & Pratt (*Metaxytherium*, discoveries, 4, 16-25; *Protosiren*, fossil manatees, 24.)
- 1983 Murphy, M.J.T.
- x 1983 O'Shea, T.J. (TML; Crystal R.; potential herbicide hazards; 159-173.)
- x *1983 Packard & Mulholland (TML; aerial surveys, 1977-82; 1-119.)
- x 1983 Packard & Nichols (TML; sample sizes required for mark-recovery studies; 1-14.)
- x 1983 Packard et al. (TML; St. Johns R.; aerial survey; 1-10.)
- 1983a Packard, J.M. (TML; Crystal R. research & management plan)
- *1983b Packard, J.M. (TML; Crystal R. research & management plan)
- 1983 Priest, R. (TML; mortality; pop. acc.)
- x 1983 Puckett, C. (Citrus Co.; public attitudes toward manatees; 321-346.)
- x 1983 Rathbun, F. (TML; pop. acc.; museum exhibit; 6-10.)
- x 1983a Shane, S.H. (TML; use of warm-water sources; pop. acc.; 40-44.)
- x 1983b Shane, S.H. (TML; Brevard Co.; abundance, distr., & movements; 1-9.)
- x 1983 Tiedemann, J.A. (TML; Turkey Creek, Brevard Co.; 1-8.)
- x 1983 Wilkins, K.T. (TM; Pleist.; Rock Springs; 70, 76-77, 79.)
- x 1984 Buergelt et al. (TML; pathology; 1331-1334.)
- x 1984 Buergelt, C.D. (TML; mortality, 1980-83; summary; 28-29.)
- x 1984 DiPerna, P. (TML; captive breeding; pop. acc.; 16-17.)
- x 1984 Hall, A.J. (TML; photos; 400-413.)
- x 1984 Irvine & Scott (TML; development of marking techniques; 12-26.)
- x 1984 Lewis et al. (TML; Tampa Bay; feeding on algae; 189-191.)
- x 1984 O'Shea et al. (TML; contaminant concentrations; 741-748.)
- x 1984 Packard, Frohlich et al. (TML; Ft. Myers; abundance, 1983-84; 1-63.)
- x 1984 Packard, J.M. (TML; impact on seagrass beds; 21-22.)
- x *1984 Powell & Rathbun (TML; northern Gulf Coast; 1-28.)
- x 1984 Reynolds & Ferguson (TML; Dry Tortugas; 187-189.)
- x 1984 Shane, S.H. (TML; Brevard Co.; use of power-plant effluents; 180-187.)
- x 1984 Snipes, R.L. (TML; cecum; 67-68.)
- 1984 Spillan, T. (TML; pop. acc.)
- x 1984a White, J.R. (TML; in capt., Miami; births; proposed breeding program; pop. acc.; 414-418.)
- x 1984b White, J.R. (TML; captive breeding & release; 369-375.)
- x 1985b Anon. (TML; pop. acc.; 16, 18.)
- x 1985 Bengtson & Fitzgerald (TML; Blue Spring & St. Johns R.; vocalizations; 816-819.)
- x 1985 Domning, D.P. (TML; habitat protection; [2].)
- x 1985 Etheridge et al. (TML; Crystal R.; plant consumption; 21-25.)
- 1985 Kneissler, M. (TML)
- x 1985 Kochman et al. (TML; Crystal R.; temporal & spatial distr.; 921-924.)
- x 1985 O'Shea, Beck et al. (TML; mortality, 1976-81; 1-11.)
- x 1985 O'Shea, Rathbun et al. (TML; capture & handling; 337-339.)
- x 1985 Packard, Frohlich et al. (TML; Ft. Myers; use of power plant, 1984-85; 1-20.)
- x 1985a Packard, J.M. (TML; aerial survey techniques; i-vi, 1-68.)
- x 1985b Packard, J.M. (TML; population model; 5, 15-17.)
- x 1985 Packard, Summers & Barnes (TML; St. Johns R.; aerial survey; 347-351.)
- x 1985 Reynolds & Wilcox (TML; power plants, 1982-83; 413-422.)
- 1985 Rose, P.M.

- x 1985 Walters, M.J. (TML; pop. acc.; 171-172, 175-176.)
- 1986 Kirby, T. (TML)
- 1986 Marine Mammal Commission (TML; Crystal R.; habitat protection needs)
- x 1986 McLaren et al. (TML; specimens in Carnegie Museum; 293-296.)
- x 1986 O'Shea, T.J. (TML; Blue Spring; feeding on acorns; 183-185.)
- x *1986 Packard & Wetterqvist (TML; northwestern coast; habitat; 279-310.)
- x 1986 Packard et al. (TML; Ft. Myers; aerial survey; 265-275.)
- 1986 Patton, G.W. (TML)
- x 1986 Ray & Domning (TML; conservation; 77-78.)
- x 1986 Reynolds & Wilcox (TML; power plants, 1984-85; 103-113.)
- x 1986 Sleeper, B. (TML; pop. acc.; 86-99.)
- x 1987b Anon. (TML; in capt.; bottle-feeding of orphan; 225.)
- 1987 Baugh, T.M.
- 1987 Bertram, G.C.L. (TML; Cape Kennedy)
- x 1987c Domning, D.P. (*Trichechus* not a recent arrival in Florida; 1-2.)
- 1987 Patton et al. (TML)
- x 1987 Reynolds & Wilcox (TML; use of power-plant refugia; pop. acc.; 263-269.)
- x 1987 Sleeper, B. (TML; pop. acc.; 18-22.)
- 1987 Thorhaug, A. (Biscayne Bay; seagrass restoration)
- x 1987 Walsh et al. (TML; omphalitis & peritonitis; 702.)
- x 1988 Beck & Forrester (TML; parasites; 628-637.)
- *1988 Beeler & O'Shea (TML; distr. & mortality)
- 1988 Brown, R.C. (fossils; pop. acc.)
- x 1988 Bulman, P. (TML; enforcement of boat speed laws; 23.)
- x 1988 Carowan, G. (TML; in capt., Epcot Center, Orlando; rehabilitation & release; 5.)
- x 1988 Dailey et al. (TML; Hobe Sound; boat kill, parasites; 159.)
- 1988 Dickey, B. (TML; Kennedy Space Center)
- x *1988 Domning, D.P. (*Metaxytherium floridanum*; Mioc.; 395-426.)
- x 1988 Hurst & Beck (TML; dietary analysis techniques; 1-145.)
- 1988 Marine Mammal Commission (TML; east coast; habitat protection needs)
- x 1988 McClenaghan & O'Shea (TML; genetic variability of subpopulations; 481-488.)
- 1988 Nabor & Patton (TML; west coast; aerial surveys)
- x *1988a O'Shea, T.J. (TML; past & present distr., abundance, & mortality, & future prospects; 184-204.)
- 1988b O'Shea, T.J. (TML; east coast; research efforts)
- x 1988 Provancha & Provancha (TML; northern Banana R.; abundance & distr.; 323-338.)
- x 1988 Rathbun, G.B. (TML; Crystal & Indian Rs.; aerial survey methods; 71-75.)
- *1988 Reynolds & Gluckman (TML; conservation)
- 1988 Reynolds & Wilcox (TML; aerial surveys)
- 1988 Silverberg & Morris (TML; Homosassa Sprs.; diet)
- 1988 Sleeper, B. (TML; pop. acc.)
- 1988 Weigle et al. (TML; Tampa Bay; use of power plants)
- 1988 Wilhelm et al. (TML; Tampa Bay; scar patterns)
- x 1989a Anon. (TML; drinking from hose; 187.)
- x 1989 Baugh et al. (TML; Cumberland Sound; feeding on *Spartina*; 88-90.)
- x 1989b Domning, D.P. (sirs.; Mioc., Suwannee R.; 54-60.)
- x 1989c Domning, D.P. (*Dioplotherium manigaulti*; Early Mioc.; 416-418.)
- 1989 Fox, A. (TML; pop. acc.)
- x 1989 Hulbert & Morgan (TM; Early Pleist., Leisey sites; 11.)
- x 1989 Lefebvre et al. (TML; distr., status, & biogeography; 567-571, 576-579, 603-604.)
- x 1989 Lewis, T.A. (TML; boat mortality; pop. acc.; 42-49.)
- x *1989 Morgan, G.S. (sirs.; Mioc., Suwannee R.; 27, 29-30, 32-34, 37-39, 43, 46, 49.)
- 1989 Nabor & Patton (TML)
- x 1989 Packard et al. (TML; Ft. Myers; at power plant, 1984-85; 692-700.)
- 1989 Patton et al. (TML; Port of the Islands)
- x 1989 Reid & O'Shea (TML; satellite tracking; 217-232.)
- x 1989 Upton et al. (TML; parasites *Eimeria* spp.; 87-90.)
- x 1989 Walsh, K. (TML; children's article; 2-9.)
- 1990 Buckingham, C.A. (TML; Crystal R.; response to disturbance)
- 1990 Chu & Dampier (TML; pop. acc.)
- 1990 Clark, M.G. (TML; children's book)
- x 1990a Domning, D.P. (Hobe & Jupiter Sounds; rhizivory experiments; 34-36.)
- x *1990b Domning, D.P. (*Corystosiren varguezii*, n.gen.n.sp.; Plioc.; 361-362.)
- 1990 Gannon, F. (TML; pop. acc.)
- 1990 Gilbrook, M.J. (TML; conservation; Geogr. Information Systems applications)
- 1990 Houhoulis, P. (TML; W. Tampa Bay; conservation; Geogr. Information Systems applications)
- x 1990 Ivany et al. (*Protosiren*; Eoc.; seagrass community; 244-258.)
- 1990 Kautz, R.S. (TML; conservation; Geogr. Information Systems applications)
- 1990 Morgan & Patton (TML; west coast; aerial surveys)
- 1990 O'Shea & Kochman (TML; distr. & ecology in relation to Geogr. Information Systems)

- 1990 Osborn, R.G. (TML; conservation; Geogr. Information Systems applications)
- x *1990 Rathbun et al. (TML; northwestern Florida; distr. & movements; 1-33.)
- *1990 Reynolds & Haddad (TML; conservation; Geogr. Information Systems Workshop)
- x 1990a Turner, R.O. (TML; new sanctuary established at Merritt Is.; 10.)
- x 1990b Turner, R.O. (TML; legislation; 7.)
- 1990 Weigle & Haddad (TML; conservation; Geogr. Information Systems applications)
- x 1991 Beck & Barros (TML; impact of debris; 508-510.)
- x 1991 Bryant, J.D. ("*Hesperosiren*" *crataegensis*; Mioc.; 475-476, 484, 486.)
- 1991 Goodwin & Thompson (TML)
- 1991 Kadel, Dukeman & Patton (TML; west coast; aerial surveys, 1988)
- 1991 Kadel, Morgan & Patton (TML; west coast; aerial surveys, 1990)
- 1991 Kiely, J. (TML; pop. acc.)
- x 1991 Lefebvre & Kochman (TML; use of Crystal & Homosassa Rs.; aerial survey methodology; 299-305.)
- x 1991 O'Shea et al. (TML; southwestern Florida; mortality from red tide, 1982; 165-179.)
- x 1991 Provancha & Hall (TML; Banana R.; impact on seagrass beds; 87-98.)
- x 1991 Reid et al. (TML; Florida; distr. & movements; 180-190.)
- x 1992a Anon. (Save the Manatee Club-Florida Audubon controversy; 89.)
- xD 1992 Hulbert, R.C., Jr. (checklist of fossil species; 28-29, 33.)
- 1992 Kadel & Patton (TML; west coast; aerial surveys, 1985-90)
- x 1992 Kadel, J. (TML; Ft. Myers; "white" individual; 15-16.)
- 1992 Nelson, M.S. (Save the Manatee Club activities)
- *1992 O'Shea et al. (TML; population biology; interim report of workshop)
- x 1992 Shackley, M. (TML; effects of tourism; 257-265.)
- x 1992 Simmons, N. (TML; rehabilitation; pop. acc.; 9.)
- 1992 Wood et al. (TML; conservation)
- 1992 Yokel, B.J. (Save the Manatee Club-Florida Audubon Soc. controversy)
- x 1993 Bonde, R.K. (TML; gen. acc.; 16-18.)
- 1993 Hughes, C.D. (TML; pop. acc.)
- x 1993 O'Keefe, M.T. (TML; pop. acc.; 1-127.)
- 1993 Smith, K.N. (TML; threats to seagrass habitats)
- 1993 Ward & Weigle (TML; conservation; GIS applications)
- 1993 Wolf, M. (TML; pop. acc.)
- x 1993 Yokel, B.J. (settlement of Florida Audubon Soc.-Save the Manatee Committee lawsuit; 2, 19.)
- Florida Manatee: SEE *Trichechus manatus*; *Trichechus manatus latirostris*; and synonyms
- Folklore: SEE Religious, Superstitious, or Ornamental Use or Observance
- Food (SEE ALSO: Behavior, Ingestive; Captivity, Sirenians in; Digestive System; Food Plants; Weed Control) (NOTE: Plants reported as part of the captive but not the natural diet of sirs. will not necessarily be found under Food Plants. Papers referring to them are, however, indexed here.)
- x 1820b Home, E. (DD; condition of stomach contents; m317.)
- x 1821b Home, E. (DD; "fuci" in stomach; 391.)
- x 1872a Murie, J. (TMM; in capt.; milk, banana; 192-193.)
- x 1875 Chapman, H.C. (TMM; in capt.; 456, 459-461.)
- x 1880 Murie, J. (TMM; in capt.; 21-23.)
- x 1881 Crane, A. (*Trichechus*; in capt.; 459-460.)
- x 1884b True, F.W. (*Trichechus*; Americas; 118-119.)
- x 1887 Martin, J.K. (TMM; Suriname; 27.)
- x 1889 Scammon, C.M. (*Trichechus*; in capt.; 582.)
- x 1891 Flower & Lydekker (*Trichechus*; in capt., Brighton; 218.)
- x 1895 Thurston, E. (DD; Sri Lanka; m99.)
- x *1899 Steller, G.W. (HG; Bering Is.; kelps; 198.)
- x 1905 Townsend, C.H. (TML; in capt., New York; *Zostera*, lettuce, celery; 97.)
- x 1906 Annandale, N. (DD; India; green alga; 242.)
- x 1906b Dexler & Freund (DD, 55-57; *Trichechus*, 57.)
- x 1908b Anon. (TML; in capt., New York; eelgrass, lettuce; 427.)
- x 1915 Ostenfeld, C.H. (sirs. & seagrass dispersal; m180.)
- x 1916a Anon. (TI; in capt., New York; *Zostera*, lettuce, bread, etc.; 1421.)
- 1921 Burkill, H.I.
- x 1923 Nopcsa, F.v. (iodine content & thyroid gland; 358.)
- x 1924a Petit, G. (DD; Madagascar; plants, 126; condition of stomach contents, 127.)
- 1924 Ridley, H.N.
- x 1924-1925 Vosseler, J. (TI; in capt., Hamburg; lettuce, cabbage, bread, *Pistia*, etc., 65, 119-121, 124-125; coprophagy, 122-123; meat, fish, 123-124.)
- x 1928 Prater, S.H. (DD; 88.)
- x 1931 Brimley, H.H. (TML; in capt., North Carolina; 321.)
- x 1932 Hirasaka, K. (DD; Taiwan; algae, crabs; 1.)
- x 1934 Hirasaka, K. (DD; Taiwan; algae, crabs; 4221.)
- x 1938 Devillers, C. (TI; in capt.; cabbage, maize, etc.; 88.)
- x 1939 Coates, C.W. (TI; in capt., New York; lettuce, etc.; 142-143.)

- x 1940 Coates, C.W. (TI; in capt., New York; clover, alfalfa; 99-100.)
- x 1941-
1943 Pereira, M.N. (TI; Brazil; plants: "comida-de-peixe-boi," "pyrypioca," 100; "canarana," "perimembéca," "arros brabo," "mururé," 102.)
- x 1944 Morais Rêgo, A.R. de (TI; Brazil; fruits, grass, detritus; 10.)
- x 1944 Pereira, M.N. (TI; Brazil; plants & mud in stomach, 41; less food available in black waters, 54-57; eating mud, 57; food plants, 56-58; calves eating plants at age of 2 months, 58.)
- x 1947 Harwood, K. (TML; in capt., Miami; water hyacinth, grass, fruit, bread; 50.)
- 1949 Poisson, H.
- x 1951b Moore, J.C. (TML; Florida; 33-34.)
- x 1954 Lawrence, J.E. (TML; 403.)
- x 1955 MacMillan, L. (DD; Australia; plants only, no roots; 17-18.)
- x 1956 Harry, R.R. (DD; Palau; clams & sea cucumbers; 22-24, 27.)
- 1957 Odum, H.T.
- x 1959 De Silva, J.A. (DD; Sri Lanka; 174.)
- x *1959 Jones, S. (DD; India; in capt., & stomach contents of wild specimens; 198-201.)
- x 1960 Allsopp, W.H.L. (TMM; Guyana; 762.)
- x 1960 Mani, S.B. (DD; India; algae in stomach; m217.)
- x 1961 Jonklaas, R. (DD; 2-3.)
- x 1963 Hofmeister, M. (?TM; in capt., Ohio; lettuce, spinach, celery; 12.)
- x 1963 Pfeffer, P. (DD; Indonesia; plants, ?crabs; 150.)
- x 1964a Bertram & Bertram (TMM; Guyana; 115, 118.)
- x 1965 Lluch B., D. (TMM; Mexico; terrestrial grasses ?preferred to seagrasses; 410-412.)
- x *1966 Jarman, P.J. (DD; Kenya; 86, 88.)
- x 1967 Aung, S.H. (DD; in capt., Rangoon; 221.)
- x 1967 Browder, J. (TML; Florida; experiments; pop. acc.; 4.)
- x 1967 Oke, V.R. (DD; in capt., Cairns, Australia; 220.)
- x 1968b Anon. (TI; in capt., San Francisco; lettuce; 2-3.)
- x 1968a Bertram & Bertram (DD; Sri Lanka, roots, etc., 386, 388; *Trichechus*, 389.)
- x 1969 Herald, E.S. (TI; in capt., San Francisco; lettuce; 29.)
- x 1971 Kingdon, J. (DD; East Africa; ?oysters, etc.; m395.)
- x 1972 Caldwell & Caldwell (TML; in capt.; plants, herring, beef; 454.)
- x 1972 Kenchington, R.A. (DD; Australia; stomach contents; 884, 886.)
- x 1972 Phillips, C. (sirs. in capt.; suggested diets; 36-37.)
- x 1973 Spain & Heinsohn (DD; Australia; seagrasses, algae, silt, animal matter; 678-680.)
- x 1974a Hartman, D.S. (TML; Florida; diet, 31-37; algae, 37, 55, 57, 79, 87, 101, 107, 109, 114, 129; lawn grass, palm fronds, cabbage, etc., 87-88, 101-102, 122.)
- x 1975 Dayton, P.K. (*Hydrodamalis*; abundance of kelp due to sea otters; 236-237.)
- xD 1975b Domning, D.P. (North Pacific sirs. & desmostylians; feeding ecology; 824.)
- x 1975 Kirkman, H. (DD; Stradbroke Is., Australia; "seagrass," m131; description of seagrass communities.)
- x 1975 Pinto da Silveira, E.K. (TMM, TI; in capt., Brazil; diets; 224-225.)
- x *1976 Allen et al. (DD; in capt., Jakarta; food analyses & feeding methods; malnutrition; 36-38.)
- x 1976 Cole & Okera (TS; Sierra Leone; rice crops; m43.)
- x *1976 Lipkin, Y. (DD; Red Sea; stomach contents; 81-96.)
- x 1976 Tas'an (DD; in capt., Jakarta; *Zostera*, *Ipomoea*, lettuce, cabbage, carrots; 5, 7-8.)
- x 1977 Boever et al. (TI; St. Louis, Missouri; lettuce & other vegetables; 5.)
- x 1977 Campbell & Irvine (TML; Florida; feeding ecology; 249-251.)
- xD 1977b Domning, D.P. (North Pacific sirs. & desmostylians; 355-361.)
- x *1977 Heinsohn et al. (DD; diet & role in ecosystem; 235-248.)
- x 1977 Marsh et al. (DD; milk & seagrasses in gut; 276.)
- xD *1978b Domning, D.P. (North Pacific; sirs. & desmostylians; 110-118, 139-146.)
- x 1978 Husson, A.M. (TMM; Suriname; bananas, etc.; 338.)
- x *1978 Powell, J.A., Jr. (TM; wild & captive; fish; 442.)
- 1979 Anderson, P.K. (DD; Australia, "bushy alga," 125, 131; Palau, sea cucumbers, 135; seagrasses, 125, 134-135.)
- x 1979 Bachman & Irvine (TML; milk volume in late lactation; 874.)
- x *1979 Hartman, D.S. (TML; Florida; diet & feeding ecology, 44-58; algae, 48-51; list of algae that may be accidentally ingested [taxa not separately indexed here], 49-51; invertebrates, 53; detritus & feces, 53, 55; food consumption in capt., 54-55.)
- 1979 Johnstone, I.M. (DD; Papua New Guinea; methods for analysis of seagrass meadows as dugong habitat)
- x 1979 Tas'an et al. (DD; in capt., Jakarta & Okinawa; misc. plants; 8-9, 18-19, 26.)
- x 1980 Denton et al. (DD; Queensland; metal content of seagrasses; 211-215.)
- x 1980 Domning, D.P. (TI, TML; in capt.; lettuce; food position preference; 544.)
- x 1980 Irvine et al. (TML; in capt.; lettuce, herring; weight

- loss & gain; 2, 7-8.)
- x 1980 Sander, H.E. (DD; Papua New Guinea; characteristics of preferred seagrass beds; 1-31.)
- x 1981 Asper & Searles (TML; in capt., Florida; misc. vegetables, tube feeding, 121, 123, 125; artificial formula, 125-127.)
- x *1981 Best, R.C. (wild & captive sir. diets & nutrition; 3-29.)
- x 1981 Brownell, Ralls & Reeves (TML; Florida; feeding ecology; review & research needs; 5.)
- x *1981 Channells & Morrissey (DD; Queensland; technique & key for identifying seagrasses in stomach samples; 303-309.)
- x 1981a Denton, G.R.W. (DD; Queensland; metal content of seagrasses; 170-171.)
- x 1981 Elliott et al. (DD; in capt., Cairns, Australia; seagrass, milk; 203-204.)
- x 1981 Jenkins, R.L. (TML; in capt., St. Augustine, Florida; vegetables, fish, etc.; 128.)
- x *1981 Johnstone & Hudson (DD; Papua New Guinea; mouth samples, 681-690; algae, 682, 685.)
- x 1981 Murray, R.M. (DD; importance of volatile fatty acids; 166-168.)
- x 1981 Powell & Waldron (TML; Blue Spring, Florida, 49-50; detritus, wood, palmetto leaf, etc.; 49.)
- x 1981 Zeiller, W. (TML; in capt., Miami; milk, vegetables, etc., 105-106; palm fronds, 107.)
- x 1982 Bengtson, J.L. (TML; St. Johns R., Florida; food preferences; 4668.)
- *1982 Best et al. (TI; in capt., Brazil; artificial formula)
- x *1982b Domning, D.P. (Trichechidae; diet & evolution; 609-616.)
- x 1982 Domning, Morgan & Ray (Eoc. sirs.; 61-63.)
- x *1982 Marsh et al. (DD; Queensland; stomach contents; algae, seagrasses; 55-67.)
- xD 1982 Reinhart, R.H. (desmostylians possibly "herbivorous to omnivorous"; 552.)
- x 1982 Werzinger, J. (TM; in capt., Nuremberg; artificial formula, carrots, lettuce, etc.; 36-37.)
- x *1983 Bengtson, J.L. (TML; St. Johns R., Florida; food consumption in wild; 1186-1192.)
- x 1983 Best, R.C. (TI; Brazil; dry-season fasting; 61-64.)
- x 1983 Irvine, A.B. (TML; in capt., Florida; lettuce, herring; 317.)
- x 1983 Tiedemann, J.A. (TML; Turkey Creek, Florida; green algae, lawn grass, etc.; 6.)
- x 1984b Best, R.C. (TI; diet & digestive physiology; gen. acc.; 374-376.)
- 1984 Janzen, D.H.
- D 1984 Kozawa, Y.
- x 1984 Lewis et al. (TML; Florida; algae; 189-191.)
- x 1984 Lomolino & Ewel (TM; consumption rates & digestive efficiencies; 176-179.)
- x 1984 Marsh, Heinsohn & Marsh (DD; low nutritive value of seagrasses; fertilization of seagrass beds by rain & silt runoff; effects of nutrition on reproduction; 782-784.)
- x 1984 Nietschmann, B. (DD; Torres Strait; list of food plants, including algae; 634-637, 639.)
- x 1984 Shane, S.H. (TML; Florida; red & green algae; 184.)
- x 1985 Morales et al. (TI; in capt.; lettuce, cabbage, celery, spinach, fish; 1230.)
- x 1985 Qiu Y.-X. (TM; in capt., Beijing; vegetables; 35.)
- x 1986a Anderson, P.K. (DD; Shark Bay, Australia; nutritional content of *Halodule* & *Amphibolis*; 476-479, 485-488.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; list of food plants, including algae [taxa of algae not separately indexed here], 989-991; food habits, 1001-1004.)
- x 1986 Colmenero-R., L.C. (TMM; Mexico; list of food plants, including algae [taxa of algae not separately indexed here], 595-597; rotten stalks, mud, etc. in dry season, 597.)
- x *1986 Gallivan & Best (TI; feeding, fasting, & metabolic rate; 552-557.)
- x 1986 Morales, P. (TI; in capt.; lettuce, cabbage, celery, spinach, fish; 44-45.)
- x 1987b Anon. (TML; in capt., Orlando, Florida; artificial formula, romaine lettuce, hydroponic wheat; m225.)
- x 1987 Domning & Thomas (seagrasses in the post-Messinian [Plioc.] Mediterranean; 229-230.)
- x 1987 Whitten et al. (DD; possible role in dispersing seeds of seagrasses; 204.)
- xD 1988 Estes & Steinberg (North Pacific sirs. & desmostylians & evolution of kelp; 21-22.)
- x *1988 Hurst & Beck (TML; Florida; dietary analysis techniques; i-xii, 1-145.)
- x 1988 O'Shea et al. (TMM; Venezuela; possible dry-season fasting; 298.)
- x 1988 Reeves et al. (TS; Sierra Leone; fish, rice, grass, mangroves; 81.)
- 1988 Silverberg & Morris (TML; Florida)
- xD 1989a Domning, D.P. (North Pacific sirs. & desmostylians & evolution of kelp; 53-56.)
- xD 1989 Estes & Steinberg (North Pacific sirs. & desmostylians & evolution of kelp; 57-60.)
- x 1991 O'Shea et al. (TML; Florida; ascidians; 170-171, 175.)
- x 1993 Erftemeijer et al. (DD; South Sulawesi; stomach contents; 229-233.)
- *1993 Smith, K.N. (TML; Florida; review)
- Food Plants: *Agarum cribrosum* (brown alga; Laminariaceae) NOTE: In the following citations of references to species of food plants, where a sir.

- taxon is not specified, reference is to the species native to the geographical area(s) mentioned.
- x 1978b Domning, D.P. (Bering Is.; 112.)
- Food Plants: *Agarum gmelini* (brown alga; Laminariaceae)
- x 1978b Domning, D.P. (Bering Is.; 112.)
- x 1981 Best, R.C. (review; 16.)
- Food Plants: *Agarum pertusum* (brown alga; Laminariaceae)
- x 1978b Domning, D.P. (Bering Is.; 112.)
- x 1981 Best, R.C. (review; 16.)
- Food Plants: *Agarum turneri* (brown alga; Laminariaceae)
- x 1978b Domning, D.P. (Bering Is.; 112.)
- x 1981 Best, R.C. (review; 16.)
- Food Plants: *Alaria esculenta* (brown alga; Alariaceae)
- x 1978b Domning, D.P. (Bering Is.; 112.)
- x 1981 Best, R.C. (review; 16.)
- Food Plants: Alismaceae
- x 1875 Marcoy, P. (S. America; 2: 193.)
- Food Plants: *Alternanthera philoxeroides* (Amaranthaceae)
- x 1974a Hartman, D.S. (Florida; 31.)
- x 1979 Hartman, D.S. (Florida; 47, 53.)
- x 1981 Best, R.C. (review; 8.)
- x 1981 Powell & Waldron (St. Johns R., Florida; 50.)
- Food Plants: *Amphibolis antarctica* (Potamogetonaceae)
- x 1981a Anderson, P.K. (DD; feeding behavior; 641.)
- x 1981b Anderson, P.K. (DD; Australia; feeding behavior; 97.)
- x 1982b Anderson, P.K. (Shark Bay, Australia; 90-91.)
- x 1985 Anderson & Prince (Shark Bay, Australia; 554.)
- x 1986a Anderson, P.K. (Shark Bay, Australia; 474, 476, 478, 484-488.)
- Food Plants: *Anabaena* (blue-green alga; Nostocaceae)
- x 1981 Best, R.C. (Florida; 8.)
- x 1981a Reynolds, J.E., III (Florida; 236, 240.)
- Food Plants: *Anacharis* (Hydrocharitaceae)
- x 1960 Allsopp, W.H.L. (Guyana; 762.)
- x 1963 Bertram & Bertram (Guyana; m92.)
- x 1969 Allsopp, W.H.L. (Guyana; 345.)
- Food Plants: *Andropogon nardus* (Gramineae)
- x 1975 Pinto da Silveira, E.K. (Brazil; in captivity; 224-225.)
- Food Plants: *Annona glabra* (Annonaceae)
- x 1975 Pinto da Silveira, E.K. ("Anona"; Brazil; in capt.; 225.)
- x 1981 Best, R.C. ("Anona"; review; 19.)
- Food Plants: *Annona reticulata* (Annonaceae)
- x 1975 Pinto da Silveira, E.K. ("Anona"; Brazil; in capt.; 225.)
- x 1981 Best, R.C. ("Anona"; review; 19.)
- Food Plants: *Artocarpus altilis* (breadfruit; Moraceae)
- x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 225.)
- x 1981 Best, R.C. (review; 19.)
- Food Plants: *Artocarpus integrifolia* (Moraceae)
- x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 225.)
- x 1981 Best, R.C. (review; 19.)
- Food Plants: *Arundinella gigantea* (Gramineae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
- Food Plants: *Avicennia germinans* (Verbenaceae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990, 1002.)
- Food Plants: *Avicennia marina* (Verbenaceae)
- x 1981 Johnstone & Hudson (Papua New Guinea; 682, 685.)
- Food Plants: *Avicennia nitida* (Verbenaceae)
- x 1981 Best, R.C. (review; 7, 9.)
- x 1982 Best & Teixeira (Brazil; 44.)
- Food Plants: *Azolla* (Salviniaceae)
- x 1969 Allsopp, W.H.L. (Guyana; 345.)
- Food Plants: *Brachiaria* (Gramineae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
- Food Plants: *Brachiaria mutica* (Gramineae)
- x 1986 Gallivan & Best (Brazil; in capt.; 552-553.)
- x 1987 Colares & Ferreira (Brazil; in capt.; 39.)
- x *1990 Colares et al. (TI; Brazil; in capt.; analysis; 44.)
- Food Plants: *Brachiaria plantaginea* (Gramineae)
- x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 225.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Cabomba* (Cabombaceae)
- x 1963 Bertram & Bertram (Guyana; m92.)
- x 1980 Domning, D.P. (TI; Brazil; in capt.; 544-545.)
- x 1981 Best, R.C. (review; 7, 11-13, 17, 20-21.)
- x 1982 Best, Ribeiro et al. (TI; Brazil; in capt.; m266.)
- x 1984 Domning & Hayek (TI; Brazil; in capt.; 106-107.)

- 119-121.)
- x 1990 Colares et al. (TI; Brazil; in capt.; 43.)
- Food Plants: *Cabomba aquatica* (Cabombaceae)
- x 1960 Allsopp, W.H.L. (Guyana; 762.)
- x 1969 Allsopp, W.H.L. (Guyana; 345-347.)
- x 1975 Pinto da Silveira, E.K. (Brazil; 224-225.)
- x 1981 Best, R.C. (review; 8, 20.)
- x 1991 Haigh, M.D. (Guyana; 341.)
- Food Plants: *Cabomba australis* (Cabombaceae)
- x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
- Food Plants: *Cabomba palaeformis* (Cabombaceae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 992.)
- Food Plants: *Caladium arborescens* (Araceae)
- 1858a Krauss, C.F.F. (Suriname; 392.)
- 1887 Kappler, A. (Suriname)
- Food Plants: *Canna indica* (Cannaceae)
- 1873 Conklin, W.A. (*Trichechus*; in capt.; 166.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Caulerpa racemosa* (green alga; Caulerpaceae)
- x 1976 Lipkin, Y. (Red Sea; 94, 96.)
- x 1981 Best, R.C. (review; 14.)
- Food Plants: *Caulerpa serrulata* (green alga; Caulerpaceae)
- x 1976 Lipkin, Y. (Red Sea; 94, 96.)
- x 1981 Best, R.C. (review; 14.)
- Food Plants: *Caulerpa taxifolia* (green alga; Caulerpaceae)
- x 1976 Lipkin, Y. (Red Sea; 94, 96.)
- x 1981 Best, R.C. (review; 14.)
- Food Plants: *Cecropia* (Moraceae)
- x 1981 Best, R.C. (review; 10.)
- Food Plants: *Centrosema brasilianum* (Fabaceae)
- x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Ceramium* (red alga; Ceramiaceae)
- x 1973 Spain & Heinsohn (Queensland; after cyclone; 678.)
- x 1981 Best, R.C. (review; 14.)
- Food Plants: *Ceratophyllum* (Ceratophyllaceae)
- x 1875 Chapman, H.C. (*Trichechus*; in capt.; m459.)
- x 1968 Lemire, M. (m492.)
- x 1969 Allsopp, W.H.L. (Guyana; 345.)
- 1986 Shaul & Haynes (Jamaica)
- Food Plants: *Ceratophyllum demersum* (Ceratophyllaceae)
- x 1974a Hartman, D.S. (Florida; 32, 92.)
- x 1977 Campbell & Irvine (Florida; 249.)
- x 1979 Hartman, D.S. (Florida; 46, 52, 55-56, 130, 139.)
- x 1981 Best, R.C. (review; 7-8, 12, 20.)
- x 1981a Reynolds, J.E., III (Florida; 236, 240.)
- x 1983 Bengtson, J.L. (Florida; 1191.)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 992.)
- Food Plants: *Chaetomorpha* (green alga; Cladophoraceae)
- x 1976 Lipkin, Y. (Red Sea; 94.)
- x 1981 Best, R.C. (review; 14.)
- Food Plants: *Chara* (green alga; Charophyceae)
- x 1969 Allsopp, W.H.L. (Guyana; 345.)
- x 1974a Hartman, D.S. (Florida; 31.)
- Food Plants: *Chara hornemanni* (green alga; Charophyceae)
- x 1979 Hartman, D.S. (Florida; 51.)
- Food Plants: *Chloris* (Gramineae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
- x 1986 Colmenero-R., L. (Mexico; 595-596.)
- Food Plants: *Chrysymenia wrightii* (red alga; Rhodophyta)
- x 1980 Kataoka & Asano (DD; in capt.; 269.)
- x 1981 Kataoka & Asano (DD; in capt.; 199.)
- Food Plants: *Cladium jamaicense* (Cyperaceae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 1001.)
- Food Plants: *Cladophora* (green alga; Cladophoraceae)
- x 1981 Best, R.C. (review; 8.)
- Food Plants: *Coccoloba* (Polygonaceae)
- x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
- Food Plants: *Cocconeis* (diatom)
- x 1977 Murray et al. (Australia; as *aufwuchs*; 8.)
- Food Plants: *Cocos nucifera* (Palmae)
- x 1979 Hartman, D.S. (Florida; 48.)
- Food Plants: *Codium decorticans* (green alga; Codiaceae)
- x 1980 Kataoka & Asano (DD; in capt.; 269.)

- x 1981 Kataoka & Asano (DD; in capt.; 199–200.)
Food Plants: *Codium magnum* (green alga; Codiaceae)
- x 1980 Kataoka & Asano (DD; in capt.; 269.)
x 1981 Kataoka & Asano (DD; in capt.; 199–200.)
Food Plants: *Conocarpus erectus* (Combretaceae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990.)
Food Plants: *Constantinea rosa-marina* (red alga; Weeksiaceae)
- x 1978b Domning, D.P. (Bering Is.; 112.)
x 1981 Best, R.C. (review; 16.)
Food Plants: Convolvulaceae
- x 1976 Mármol B., A.E. (Peru; 32.)
Food Plants: *Cymodocea* (Potamogetonaceae)
- x 1923 Petit, G. (Madagascar; 75.)
x *1959 Jones, S. (India; 198–200.)
x 1967a Jones, S. (New Caledonia; 216.)
x *1972 Heinsohn & Birch (Queensland; 416–418, 421–422.)
x 1972 Heinsohn, G.E. (Queensland; 212.)
1981 Channells & Morrissey (Queensland; technique for identification in stomach samples; 304, 307–309. x)
x 1981 Nietschmann & Nietschmann (Torres Strait; m57.)
x 1982 Marsh et al. (Queensland; 58–64.)
x 1984 Nietschmann, B. (Torres Strait; 636–637.)
x 1993 Erftemeijer et al. (South Sulawesi; 231.)
Food Plants: *Cymodocea angustata* (Potamogetonaceae)
- x 1981 Best, R.C. (review; 14.)
Food Plants: *Cymodocea australis* (Potamogetonaceae)
- x 1924a Petit, G. (Madagascar; 126–127.)
x 1928 Prater, S.H. (Madagascar; 88.)
x 1959 Jones, S. (India; 199–200.)
x 1961 Jonklaas, R. (India; 2–3.)
Food Plants: *Cymodocea ciliata* (Potamogetonaceae)
- x 1959 Jones, S. (India; 199–200.)
x 1961 Jonklaas, R. (India; 2–3.)
x 1968 Lemire, M. (m514.)
x 1971 Hughes & Oxley-Oxland (Mozambique; m300.)
x 1971 Kingdon, J. (East Africa; 395.)
x 1981 Jones, S. (India & Sri Lanka; 47.)
Food Plants: *Cymodocea isoetifolia* (Potamogetonaceae)
- x 1959 Jones, S. (India; 199.)
x 1961 Jonklaas, R. (India; 2–3.)
Food Plants: *Cymodocea manatorum* (Potamogetonaceae)
- x 1917b Anon. (Florida; m454.)
x *1917 Fairchild, D. (Florida; 345.)
x 1918 Ménégau, A. (Florida; 700.)
x 1919 Safford, W.E. (Florida; 424.)
x 1956 Moore, J.C. (Florida; 7.)
Food Plants: *Cymodocea nodosa* (Potamogetonaceae)
- x 1918 Ménégau, A. (West Africa; 701.)
x 1939 Beal, W.P.B. (West Africa; 125–126.)
x 1948 Bessac & Villiers (Senegal; 188.)
x 1981 Best, R.C. (review; 10.)
Food Plants: *Cymodocea rotundata* (Potamogetonaceae)
- x 1959 Jones, S. (India; 199–200.)
x 1961 Jonklaas, R. (India; 3.)
x 1966 Jarman, P.J. (Kenya; 86.)
x *1976 Lipkin, Y. (Red Sea; 82, 87–89, 91.)
x 1981 Best, R.C. (review; 14, 23.)
x 1981 Johnstone & Hudson (Papua New Guinea; 685, 688.)
x 1982 Barnett & Johns (Queensland; 522.)
Food Plants: *Cymodocea serrulata* (Potamogetonaceae)
- x 1976 Lipkin, Y. (review; 82, 91.)
x 1981 Best, R.C. (review; 14.)
x 1981 Johnstone & Hudson (Papua New Guinea; 685, 688.)
Food Plants: *Cynodon dactylon* (Gramineae)
- x 1986 Colmenero-R., L. (Mexico; 596.)
Food Plants: *Cynodon pentadactyla* (Gramineae)
- x 1986 Colmenero-R., L. (Mexico; 596.)
Food Plants: *Cyperus* (Cyperaceae)
- x 1981 Best, R.C. (review; 8.)
Food Plants: *Cyperus articulatus* (Cyperaceae)
- x 1981a Domning, D.P. ("*C. a. var. nodosus*"; Brazil; 91.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 993.)
x 1986 Colmenero-R., L. (Mexico; 596.)
Food Plants: *Cyperus egersii* (Cyperaceae)
- x 1986 Colmenero-R., L. (Mexico; 596.)
Food Plants: *Cyperus imbricatus* (Cyperaceae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
x 1986 Colmenero-R., L. (Mexico; 596.)
Food Plants: *Cyperus luzulae* (Cyperaceae)
- x 1981a Domning, D.P. (Brazil; 91.)

- Food Plants: *Cyperus ochraceus* (Cyperaceae)
 x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
- Food Plants: *Cyperus radiatus* (Cyperaceae)
 x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
 x 1981 Best, R.C. (review; 20.)
- Food Plants: *Cyperus surinamensis* (Cyperaceae)
 x 1986 Colmenero-R., L. (Mexico; 596.)
- Food Plants: *Cyperus virens* (Cyperaceae)
 x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
 x 1986 Colmenero-R., L. (Mexico; 596.)
- Food Plants: *Dichromena ciliata* (Cyperaceae)
 x 1981a Domning, D.P. (Brazil; 91.)
- Food Plants: *Diplanthera* (Potamogetonaceae)
 x 1968a Bertram & Bertram (m386.)
 x *1972 Heinsohn & Birch (Queensland; 416-418, 421-422.)
 x 1972 Heinsohn, G.E. (Queensland; 212.)
- Food Plants: *Diplanthera pinifolia* (Potamogetonaceae)
 x *1972 Heinsohn & Birch (Queensland; 418.)
- Food Plants: *Diplanthera uninervis* (Potamogetonaceae)
 x 1957 Gohar, H.A.F. (Red Sea; 40, 42.)
 x 1959 Jones, S. (Red Sea; m200.)
 x *1972 Heinsohn & Birch (Queensland; 418.)
 x 1979 Hilmy et al. (Red Sea; m200, 202.)
 x 1979 Tas'an et al. ("*D. universis*"; Indonesia; in capt.; 8-9, 19-20.)
- Food Plants: *Diplanthera wrightii* (Potamogetonaceae)
 x 1974a Hartman, D.S. (Florida; 31-36, 101, 107, 109, 114, 155.)
 x 1979 Hartman, D.S. (Florida; 46-47, 51, 56-57, 139.)
 x 1981 Best, R.C. (review; 9.)
- Food Plants: *Distichlis* (Gramineae)
 x 1974a Hartman, D.S. (Florida & Georgia; 37, 124.)
- Food Plants: *Distichlis spicata* (Gramineae)
 x 1979 Hartman, D.S. (Florida; 48.)
- Food Plants: *Dumontia fucicola* (red alga; Dumontiaceae)
 x 1978b Domning, D.P. (Bering Is.; 112.)
 x 1981 Best, R.C. (review; 16.)
- Food Plants: *Echinochloa* (Gramineae)
 xv 1941-
 1943 Pereira, M.N. ("canarana"; TI; Brazil; 102.)
- x 1976 Mármol B., A.E. (Peru; 32.)
- Food Plants: *Echinochloa elephantipes* (Gramineae)
 x 1831 Spix & Martius (Brazil; 1123.)
- Food Plants: *Echinochloa polystachya* (Gramineae)
 x 1972 Coimbra-Filho, A.F. (Brazil; 85.)
 x 1975 Pinto da Silveira, E.K. (Brazil; 224-225.)
 x 1981 Best, R.C. (review; 10, 12, 20.)
 x 1981 Montgomery et al. (Brazil; 83.)
 x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
 x 1987 Colares & Ferreira (Brazil; in capt.; 39.)
 x 1990 Colares et al. (TI; Brazil; in capt.; 43.)
- Food Plants: *Echinochloa pyramidalis* (Gramineae)
 x 1966 Kinzer, J. (TS; Ivory Coast; in capt.; 48.)
 x 1981 Best, R.C. (review; 20.)
 x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
- Food Plants: *Ectocarpus* (brown alga; Ectocarpaceae)
 x 1981 Best, R.C. (review; 8.)
- Food Plants: *Egeria* (Hydrocharitaceae)
 x 1982 Best, Ribeiro et al. (TI; Brazil; in capt.; m266.)
- Food Plants: *Eichhornia* (water hyacinth; Pontederiaceae)
 x 1960 Allsopp, W.H.L. (Guyana; 762.)
 x 1969 Allsopp, W.H.L. (Guyana; 345-346.)
 x 1981 Asper & Searles (TM; Florida; in capt.; parts eaten; 121.)
 x 1981a Domning, D.P. (Brazil; 91.)
 x 1989 Timm et al. (Ecuador; naturally ?controlled by TI; 6.)
- Food Plants: *Eichhornia azurea* (Pontederiaceae)
 x *1967 MacLaren, J.P. (Panama; 389, 392.)
 x 1976 Mármol B., A.E. (Peru; 32.)
 x 1981 Best, R.C. (review; 10.)
- Food Plants: *Eichhornia crassipes* (Pontederiaceae)
 xv 1947 Harwood, K. (TM; Florida; in capt.; 50.)
 x 1951b Moore, J.C. (Florida; 34.)
 x 1965 Lluch B., D. (Mexico; 410.)
 x *1967 MacLaren, J.P. (Panama; 389, 392.)
 x 1974a Hartman, D.S. (Florida, Georgia; 31-32, 64, 74-75, 77-78, 90, 92, 94, 101, 106-107, 115, 121, 124, 161, 168-170, 175-176, 220.)
 x 1975 Vietmeyer, N.D. (*Trichechus*; 71-73.)
 x 1976 Mármol B., A.E. (Peru; 32.)
 x 1977 Campbell & Irvine (Florida; 250.)
 x *1979 Hartman, D.S. (Florida; 44, 46-47, 52-53, 56-57, 85, 130, 139.)

- x 1981 Best, R.C. (review; 7, 9–13, 17–18, 20.)
- x 1981 Montgomery et al. (Brazil; 83.)
- x 1981 Powell & Waldron (St. Johns R., Florida; 49–50.)
- x 1982 Best & Teixeira (Brazil; 43–44.)
- x 1983 Bengtson, J.L. (Florida; 1187.)
- x 1983 Tiedemann, J.A. (Turkey Creek, Florida; 6.)
- x 1984 Irvine & Scott (Florida; 19.)
- x 1984 Lomolino & Ewel (TM; Florida; in capt.; digestive efficiencies; 176–179.)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990, 1001.)
- x 1986 Colmenero-R., L. (Mexico; 595–596.)
- x 1986 Gallivan & Best ("*E. crassiceps*"; Brazil; in capt.; 552–553.)
- x 1986 Timm et al. (Ecuador; 154.)
- x 1987 Colares & Colares (Brazil; seasonal abundance; 42–43.)
- x 1987 Colares & Ferreira (Brazil; in capt.; 39.)
- x 1990 Colares et al. (TI; Brazil; in capt.; 43.)
- Food Plants: *Eichhornia diversifolia* (Pontederiaceae)
- x 1986 Timm et al. (Ecuador; 154.)
- Food Plants: *Eichhornia heterosperma* (Pontederiaceae)
- x 1986 Timm et al. (Ecuador; 153–154.)
- Food Plants: *Eleocharis acicularis* (Cyperaceae)
- x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
- x 1981 Best, R.C. (review; 8, 12, 20.)
- Food Plants: *Eleocharis interstincta* (Cyperaceae)
- x 1982 Best & Teixeira (Brazil; 44.)
- Food Plants: *Elodea densa* (Hydrocharitaceae)
- x 1974a Hartman, D.S. (Florida; 32.)
- x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
- x 1979 Hartman, D.S. (Florida; 46, 57.)
- x 1981 Best, R.C. (review; 8, 12, 20.)
- Food Plants: *Enhalus acoroides* (Hydrocharitaceae)
- 1893 Vorderman, A.G. (Indonesia?)
- x 1957 Bayer & Harry-Rofen (Palau; 501–502.)
- x *1972 Heinsohn & Birch (Queensland; not eaten; 419–421.)
- x 1976 Lipkin, Y. (review; 82, 91, 92.)
- 1980 Denton et al. (Australia; 215.x)
- x 1981 Best, R.C. (review; 14.)
- 1981 Channells & Morrissey (Queensland; technique for identification in stomach samples; 307–309. x)
- x 1981 Johnstone & Hudson (Papua New Guinea; 685, 687–688.)
- x 1981 Santiapillai, C. (Sri Lanka; 3.)
- x 1982 Marsh et al. (Queensland; 58–59, 65.)
- x 1984 Marsh, Heinsohn & Marsh (Australia; 783.)
- x 1984 Nietschmann, B. (Torres Strait; 636–637.)
- x 1993 Erftemeijer et al. (South Sulawesi; 229–232.)
- Food Plants: *Enhalus koenigii* (Hydrocharitaceae)
- 1893 Vorderman, A.G.
- x 1959 Jones, S. (India; 199.)
- x 1981 Best, R.C. (review; 14.)
- Food Plants: *Enteromorpha* (alga)
- x 1979 Hartman, D.S. (Florida; 48.)
- x 1981 Best, R.C. (review; 8.)
- Food Plants: *Eragrostis* (Gramineae)
- x 1986 Colmenero-R. & Hoz-Z. ("*E. aff. contrerasii*"; Mexico; 989.)
- Food Plants: *Eragrostis hypnoides* (Gramineae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
- x 1986 Colmenero-R., L. ("*E. hipnopsis*"; Mexico; 596.)
- Food Plants: *Eragrostis reptans* (Gramineae)
- x 1965 Lluch B., D. (Mexico; 410.)
- Food Plants: *Fimbristylis capillaris* (Cyperaceae)
- x 1981a Domning, D.P. (Brazil; 91.)
- Food Plants: *Forsteronia* (Apocynaceae)
- x 1987 Colares & Colares (Brazil; seasonal abundance; 42–43.)
- Food Plants: *Fucus* (brown alga; Fucaceae)
- x 1906b Dexler & Freund (DD; m55.)
- Food Plants: *Fucus vesiculosus* (brown alga; Fucaceae)
- x 1873 Conklin, W.A. ("*Fucus vesiculosus*"; *Trichechus*; in capt.; 166.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Fuirena robusta* (Gramineae)
- x 1986 Colmenero-R. & Hoz-Z. ("*Fuireria robusta*"; Mexico; 989.)
- Food Plants: *Genipa americana* (Rubiaceae)
- x 1981a Domning, D.P. (Brazil; 91.)
- Food Plants: *Gracilaria* (red alga; Gracilariaceae)
- x 1984 Shane, S.H. (Florida; 184.)
- Food Plants: *Gracilaria verrucosa* (red alga; Gracilariaceae)
- x 1981 Best, R.C. (review; 8.)
- Food Plants: *Halodule* (Potamogetonaceae)
- x 1982 Marsh et al. (Queensland; 58–65.)

- x 1990a Domning, D.P. (Florida; 34.)
Food Plants: *Halodule beaudettei* (Potamogetonaceae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990.)
Food Plants: *Halodule pinifolia* (Potamogetonaceae)
- x 1976 Lipkin, Y. (review; 82, 91.)
x 1981 Best, R.C. (review; 14.)
x 1981 Johnstone & Hudson (Papua New Guinea; 682, 685, 687-688.)
x 1984 Nietschmann, B. ("*H. pirifolia*"; Torres Strait; 636-637.)
x 1989a Marsh, H. (Australia; 82-83.)
Food Plants: *Halodule uninervis* (Potamogetonaceae)
- x 1971 Hughes & Oxley-Oxland ("*Holidule*"; Mozambique; m300.)
x 1971 Kingdon, J. (East Africa; 395.)
x *1976 Lipkin, Y. (Red Sea; 82-83, 87-92, 96.)
x 1977 Murray et al. (Australia; 8.)
x 1981 Best, R.C. (review; 14, 23.)
x 1981 Channells & Morrissey (Queensland; technique for identification in stomach samples; 307-309.)
x 1981 Johnstone & Hudson (Papua New Guinea; 682, 685, 687-688.)
x 1982 Barnett & Johns (Queensland; 522.)
x 1986a Anderson, P.K. (Shark Bay, Australia; 474, 476-478, 483-488.)
x 1989a Marsh, H. (Australia; 82-83.)
x 1993 Erfteimeijer et al. (South Sulawesi; 231-232.)
Food Plants: *Halodule wrightii* (Potamogetonaceae)
- x 1966 Jarman, P.J. (Kenya; 86.)
x 1977 Campbell & Irvine (Florida; 250.)
x 1984 Packard, J.M. (Florida; 21-22.)
x 1984 Powell & Rathbun (Florida; 15, 17, 24.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990, 1001.)
x 1991 Provancha & Hall (Florida; 87-98.)
Food Plants: *Halophila* (Hydrocharitaceae)
- x 1963 Pfeffer, P. (Indonesia; 150.)
x 1967a Jones, S. (New Caledonia; 216.)
x 1968a Bertram & Bertram (m386.)
x 1971 Kingdon, J. (East Africa; 395.)
x *1972 Heinsohn & Birch (Queensland; 416-419, 422.)
x 1981 Channells & Morrissey (Queensland; technique for identification in stomach samples; 307-309.)
x 1981 Nietschmann & Nietschmann (Torres Strait; m57.)
x 1982 Marsh et al. (Queensland; 58-65.)
x 1984 Nietschmann, B. (Torres Strait; 636-637.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 1001.)
x 1993 Erfteimeijer et al. (South Sulawesi; 231.)
Food Plants: *Halophila decipiens* (Hydrocharitaceae)
- x 1972 Heinsohn & Birch (Queensland; 416-419.)
x 1976 Lipkin, Y. (review; 82, 91.)
x 1981 Best, R.C. (review; 14.)
x 1981 Johnstone & Hudson (Papua New Guinea; 685, 688.)
Food Plants: *Halophila engelmanni* (Hydrocharitaceae)
- x 1977 Campbell & Irvine (Florida; 250.)
x 1981 Best, R.C. (review; 8.)
Food Plants: *Halophila ovalis* (Hydrocharitaceae)
- x 1906b Dexler & Freund (Australia; 56.)
x 1924a Petit, G. (Madagascar; 126.)
x 1928 Prater, S.H. (Australia; 88.)
x 1959 Jones, S. (India; 199.)
x 1962 Marlow, B.J. (Australia; 433.)
x 1966 Jarman, P.J. (Kenya; 86.)
x 1972 Heinsohn & Birch (Queensland; 416-418.)
x 1976 Lipkin, Y. (review, 82; Red Sea, *not* eaten, 89.)
x 1977 Murray et al. (Australia; 8.)
x 1981a Anderson, P.K. (DD feeding behavior; 641.)
x 1981 Best, R.C. (review; 14.)
x 1981 Johnstone & Hudson (Papua New Guinea; 685, 687-688.)
x 1981 Santiapillai, C. (Sri Lanka; 3.)
xv 1986 Williams, T.R. (New Ireland, Papua New Guinea; 66-67.)
x 1991 Frazier & Mundkur (India; 374.)
Food Plants: *Halophila ovata* (Hydrocharitaceae)
- x 1968 Lemire, M. (m514.)
x 1976 Lipkin, Y. (review; 82, 91.)
x 1981 Best, R.C. (review; 14.)
Food Plants: *Halophila spinulosa* (Hydrocharitaceae)
- x 1972 Heinsohn & Birch (Queensland; 416-417, 419.)
x 1976 Lipkin, Y. (review; 82, 91.)
x 1981 Best, R.C. (review; 14.)
x 1981 Johnstone & Hudson (Papua New Guinea; 685, 687-688.)
Food Plants: *Halophila stipulacea* (Hydrocharitaceae)
- x 1959 Jones, S. (India; 199.)
x 1966 Jarman, P.J. (Kenya; 86.)
x *1976 Lipkin, Y. (Red Sea; 82, 87-92, 96.)
x 1981 Best, R.C. (review; 14.)
Food Plants: *Halosaccion glandiforme* (red alga; Palmariaceae)
- x 1978b Domning, D.P. (Bering Is.; 112.)
Food Plants: *Heteranthera dubia* (Pontederiaceae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990.)

- Food Plants: *Hevea spruceana* (Euphorbiaceae)
 x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
- Food Plants: *Hibiscus tiliaceus* (Malvaceae)
 x 1975 Pinto da Silveira, E.K. (Brazil; TMM, in capt.; flowers; 224.)
 x 1981 Best, R.C. (review; 19.)
- Food Plants: *Hydrilla verticillata* (Hydrocharitaceae)
 x 1974a Hartman, D.S. (Florida; 32, 115, 220.)
 x 1977 Campbell & Irvine (Florida; 250.)
 x *1979 Hartman, D.S. (Florida; 46, 52, 55-57, 108, 139.)
 x 1981 Best, R.C. (review; 7-8, 11-12.)
 x 1981a Reynolds, J.E., III (Florida; 236, 240.)
 x 1981c Reynolds, J.E., III (Florida; 28.)
 x 1983 Kochman et al. (Crystal R., Florida; 120.)
 x 1983 O'Shea, T.J. (effects of herbicide; 165-166.)
 x 1984 Powell & Rathbun (Florida; 17.)
 x *1985 Etheridge et al. (TM; Crystal R., Florida; consumption rate & feeding experiments; 21-25.)
- Food Plants: *Hymenachne amplexicaulis* (Gramineae)
 x 1981 Best, R.C. (review; 9-10, 12, 20.)
 x 1981 Montgomery et al. (Brazil; 83.)
 x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
 x 1990 Colares et al. (TI; Brazil; in capt.; 43.)
 x 1991 Haigh, M.D. ("*H. amplexicaule*"; Guyana; 341.)
- Food Plants: *Hymenachne donacifolia* (Gramineae)
 x 1986 Timm et al. (Ecuador; 154.)
- Food Plants: *Hymenaea coubaril* (Leguminosae)
 x 1986 Colmenero-R., L. (Mexico; 596.)
- Food Plants: *Hypnea* (red alga; Hypneaceae)
 x 1973 Spain & Heinsohn (Queensland; after cyclone; 678.)
 x 1981 Best, R.C. (review; 14.)
- Food Plants: *Impatiens* (Balsaminaceae)
 x 1982b Domning, D.P. (West Africa; 610, 615.)
- Food Plants: *Ipomoea* (Convolvulaceae)
 x 1969 Allsopp, W.H.L. (Guyana; 345.)
 x 1976 Tas'an (Indonesia; in capt.; 5.)
 x 1979 Tas'an et al. (Okinawa; in capt.; 18.)
- Food Plants: *Ipomoea aquatica* (Convolvulaceae)
 x 1981 Best, R.C. (review; 7-8, 10, 20, 23.)
 x 1981 Montgomery et al. (Brazil; 83.)
 x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
- Food Plants: *Ipomoea batatas* (Convolvulaceae)
 x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- Food Plants: *Ipomoea setifera* (Convolvulaceae)
 x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- Food Plants: *Kyllingia brevifolia* (= *Killingia*) (Cyperaceae)
 xv 1941-
 1943 Pereira, M.N. ("pyrypioca"; TI; Brazil; 100.)
 x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 225.)
 x 1981 Best, R.C. (review; 20.)
- Food Plants: *Lactuca sativa* (lettuce; Asteraceae) (SEE ALSO under Food)
 x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
 x 1981 Best, R.C. (review; 19, 22.)
 x 1984 Lomolino & Ewel ("*Lactuca lactuca*"; TM; Florida; in capt.; digestive efficiencies; 176-179.)
 xv 1990 Colares et al. (TI; Brazil; in capt.; 44.)
- Food Plants: *Laguncularia racemosa* (Combretaceae)
 x 1981 Best, R.C. (review; 7-8.)
 x 1982 Best & Teixeira (Brazil; 44.)
 x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990.)
- Food Plants: *Laminaria* (brown alga; Laminariaceae)
 x 1885a Woodward, H. (m463, 465.)
 x 1946 Goodwin, G.G. ("*Lampellaris*"; Bering Is.; 61.)
- Food Plants: *Laminaria saccharina* (brown alga; Laminariaceae)
 x 1978b Domning, D.P. (Bering Is.; 112.)
 x 1981 Best, R.C. (review; 16.)
- Food Plants: *Laurencia* (red alga; Rhodophyta)
 x 1973 Spain & Heinsohn (Queensland; after cyclone; 678.)
 x 1981 Best, R.C. (review; 14.)
- Food Plants: *Leersia* (Gramineae)
 x 1960 Allsopp, W.H.L. (Guyana; 762.)
 x 1963 Bertram & Bertram (Guyana; m92.)
 x 1969 Allsopp, W.H.L. (Guyana; 345.)
- Food Plants: *Leersia hexandra* (Gramineae)
 x 1975 Pinto da Silveira, E.K. (Brazil; not part of manatees' natural diet; 225.)
 x 1981 Best, R.C. (review; 10, 20.)
 x 1981 Montgomery et al. (Brazil; 83.)
- Food Plants: *Lemna* (duckweed; Lemnaceae)
 x 1983 Tiedemann, J.A. (Turkey Creek, Florida; 6.)

- Food Plants: *Ludwigia adscendens* (Onagraceae)
x 1986 Timm et al. (Ecuador; 154.)
- Food Plants: *Ludwigia helminthorrhiza* (Onagraceae)
x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
- Food Plants: *Luziola spruceana* (Gramineae)
x 1969 Allsopp, W.H.L. (Guyana; 346-347.)
x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
x 1981 Best, R.C. (review; 9-10, 20.)
x 1981 Montgomery et al. (Brazil; 83.)
x 1983 Best, R.C. (TI; Brazil; 62.)
x 1991 Haigh, M.D. (Guyana; 341.)
- Food Plants: *Luziola subintegra* (Gramineae)
x 1986 Colmenero-R. & Hoz-Z. ("*L. sabintegra*"; Mexico; 989.)
- Food Plants: *Machaerium lunatum* (Fabaceae)
x 1978 Husson, A.M. (Suriname; 338.)
- Food Plants: *Machaerium wrightii* (Fabaceae)
x 1981 Best, R.C. (review; 8.)
- Food Plants: *Madarosperma trillianum* (Asclepiadaceae)
x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
- Food Plants: Mangroves (SEE ALSO: *Avicennia*, *Conocarpus*, *Laguncularia*, *Rhizophora*)
1872 Maynard, C.J. (Florida)
x 1881 Flower, W.H. (Sierra Leone; 454.)
x 1895 Bangs, O. (Florida; 787.)
x 1957 Cadenat, J. (Senegal; 1369.)
x 1988 O'Shea et al. (Venezuela; 290.)
x 1988 Reeves et al. (Sierra Leone; 81.)
- Food Plants: *Mauritia flexuosa* (Palmaceae)
x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- Food Plants: *Medicago sativa* (alfalfa; Leguminosae)
x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224-225.)
x 1981 Best, R.C. (review; 19.)
- Food Plants: *Mimosa* (Leguminosae)
x 1969 Allsopp, W.H.L. (Guyana; 346.)
- Food Plants: *Mimosa pigra* (Leguminosae)
x 1986 Colmenero-R., L. (Mexico; 595-596.)
- Food Plants: *Montrichardia* (Araceae)
xv 1805 Pitou, L.-A. ("moucou moucou"; French Guiana; 2: 260.)
- x 1887 Martin, K. (Suriname; 27.)
x 1969 Allsopp, W.H.L. (Guyana; 346.)
xv 1974b Dekker, D. ("mokko mokko"; Suriname; 2.)
- Food Plants: *Montrichardia arborescens* (Araceae)
xv 1880 Murie, J. ("Moca-moca"; Guyana; in capt.; 21.)
x 1964a Bertram & Bertram (Guyana; m118.)
x 1978 Husson, A.M. (Suriname; 338-339.)
x 1981 Best, R.C. (review; 7-8, 10, 20.)
x 1981a Domning, D.P. (Brazil; 91.)
x 1981 Montgomery et al. (Brazil; 83.)
x 1982 Best & Teixeira (Brazil; 43-44.)
- Food Plants: *Mougeotia* (green alga; Zygnemataceae)
x 1981 Best, R.C. (review; 8.)
x 1981a Reynolds, J.E., III (Florida; 236.)
- Food Plants: *Myriophyllum* (Haloragaceae)
x 1969 Allsopp, W.H.L. (Guyana; 345.)
x 1975 Pinto da Silveira, E.K. ("*M. brasiliense* and/or *M. elatinoideis*"; Brazil; in capt.; 224.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 992.)
- Food Plants: *Myriophyllum brasiliense* (Haloragaceae)
x 1975 Pinto da Silveira, E.K. ("*M. brasiliense* and/or *M. elatinoideis*"; Brazil; in capt.; 224.)
x 1983 O'Shea, T.J. (effect of herbicide; 165.)
- Food Plants: *Myriophyllum spicatum* (Haloragaceae)
x 1974a Hartman, D.S. (Florida; 32, 220.)
x 1977 Campbell & Irvine (Florida; 249.)
x 1979 Hartman, D.S. (Florida; 46, 52, 55-56, 139.)
x 1981 Best, R.C. (review; 7-8, 12, 20.)
- Food Plants: *Najas arguta* (Najadaceae)
x 1986 Timm et al. (Ecuador; 154.)
- Food Plants: *Najas guadalupensis* (Najadaceae)
x 1974a Hartman, D.S. (Florida; 32, 92.)
x 1979 Hartman, D.S. (Florida; 46.)
x 1981 Best, R.C. (review; 8, 12, 20.)
x 1983 Bengtson, J.L. (Florida; 1191.)
x 1983 O'Shea, T.J. (effects of herbicide; 165.)
- Food Plants: *Najas marina* (Najadaceae)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 1001.)
- Food Plants: *Navicula* (diatom; Naviculaceae)
x 1979 Hartman, D.S. (Florida; 48.)
x 1981 Best, R.C. (review; 8.)
- Food Plants: *Nelumbium speciosum* (Nelumbonaceae)
x 1969 Allsopp, W.H.L. (Guyana; 346-347.)

- x 1981 Best, R.C. ("*Nelumbo speciosum*"; Guyana, Suriname; 8.)
- x 1991 Haigh, M.D. ("*Nelumbo speciosa*"; Guyana; 341.)
- Food Plants: *Nelumbo* (Nelumbonaceae)
- x 1960 Allsopp, W.H.L. (Guyana; 762.)
- x 1963 Bertram & Bertram ("*Nelumbium*"; Guyana; m92.)
- x 1969 Allsopp, W.H.L. (Guyana; 345.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Nelumbo lutea* (Nelumbonaceae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 1001.)
- Food Plants: *Neptunia oleracea* (Leguminosae)
- x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
- Food Plants: *Nereocystis luetkeana* (brown alga; Lesoniaceae)
- x 1978b Domning, D.P. (Bering Is.; 112.)
- x 1981 Best, R.C. (review; 16.)
- Food Plants: *Nitella* (green alga; Charophyceae)
- x 1969 Allsopp, W.H.L. (Guyana; 345.)
- Food Plants: *Nymphaea* (Nymphaeaceae)
- x 1948 Bessac & Villiers (TS; in capt.; 188.)
- x 1960 Allsopp, W.H.L. (Guyana; 762.)
- x 1963 Bertram & Bertram (Guyana; m92.)
- x 1969 Allsopp, W.H.L. (Guyana; 345.)
- x 1981 Best, R.C. (review; 10, 17, 20.)
- x 1981 Montgomery et al. (Brazil; 83.)
- x 1982b Domning, D.P. ("*N. cf. rufescens*"; West Africa; 609-610.)
- Food Plants: *Nymphaea ampla* (Nymphaeaceae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 1001.)
- Food Plants: *Nymphaea lotus* (Nymphaeaceae)
- x 1982b Domning, D.P. (West Africa; 609-610.)
- Food Plants: *Nymphaea odorata* (Nymphaeaceae)
- x 1986 Colmenero-R., L. (Mexico; 596.)
- Food Plants: *Operculina alata* (Convolvulaceae)
- x 1981 Best, R.C. (review; 10.)
- x 1981 Montgomery et al. (Brazil; 83.)
- Food Plants: *Oryza* (Gramineae)
- x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
- Food Plants: *Oryza latifolia* (Gramineae)
- x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Oryza perennis* (Gramineae)
- xv 1941-
1943 Pereira, M.N. ("arros brabo"; TI; Brazil; 102.)
- x 1981 Best, R.C. (review; 10, 12.)
- x 1981 Montgomery et al. (Brazil; 83.)
- Food Plants: *Oscillatoria* (blue-green alga; Oscillatoriaceae)
- x 1979 Hartman, D.S. (Florida; 48.)
- x 1981 Best, R.C. (review; 8.)
- Food Plants: *Panicum* (Gramineae)
- x 1831 Spix & Martius (Brazil; 1123.)
- x 1951b Moore, J.C. (Florida; 33.)
- x 1969 Allsopp, W.H.L. (Guyana; 345.)
- x 1974a Hartman, D.S. (Florida, Georgia; 37, 90.)
- x 1980 Domning, D.P. (TI; Brazil; in capt.; 544.)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
- Food Plants: *Panicum amplexicaule* (Gramineae)
- x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- Food Plants: *Panicum apressum* (Gramineae)
- x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Panicum elephantipes* (Gramineae)
- x 1978 Husson, A.M. (Suriname; 338.)
- Food Plants: *Panicum gladiatum* (Gramineae)
- x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224-225.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Panicum hemitomom* (Gramineae)
- x 1981 Best, R.C. (review; 9.)
- x 1981a Reynolds, J.E., III (Florida; 237, 240.)
- Food Plants: *Panicum jumentorum* (Gramineae)
- x 1935 Barrett, O.W. (Puerto Rico; m216.)
- x 1981 Best, R.C. (review; 9.)
- Food Plants: *Panicum laxum* (Gramineae)
- x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Panicum maximum* (Gramineae)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 993.)
- x 1986 Colmenero-R., L. (Mexico; 595-596.)

- Food Plants: *Panicum molle* (Gramineae)
 x *1935 Barrett, O.W. (Central America, Puerto Rico; 216-217.)
 x 1981 Best, R.C. (review; 9.)
- Food Plants: *Panicum polycomum* (Gramineae)
 x 1981a Domning, D.P. (Brazil; 91.)
- Food Plants: *Panicum purpurascens* (Gramineae)
 x 1979 Hartman, D.S. (Florida; 48, 130.)
 x 1981 Best, R.C. (review; 7, 9-10, 13, 20.)
 x 1981 Powell & Waldron (St. Johns R., Florida; 50.)
 x 1982 Best, Ribeiro et al. (TI; Brazil; in capt.; m266.)
 x 1983 Bengtson, J.L. (Florida; 1191.)
 x 1984 Domning & Hayek (TI; Brazil; in capt.; 106-107, 119-121.)
- Food Plants: *Panicum spectabile* (Gramineae)
 x 1948 Mendes, A. (TI; Brazil; 326.)
 x 1975 Pinto da Silveira, E.K. (Brazil; 224-225.)
 x 1981 Best, R.C. (review; 20.)
- Food Plants: *Panicum zizanioides* (Gramineae)
 x 1975 Pinto da Silveira, E.K. (Brazil; 224-225.)
 x 1981 Best, R.C. (review; 20.)
- Food Plants: Papilionaceae
 1858a Krauss, C.F.F. ("brandimakka"; Suriname; 392.)
- Food Plants: *Paspalum* (Gramineae)
 x 1831 Spix & Martius ("*Paspalus*"; Brazil; 1123.)
 x 1974a Hartman, D.S. (Florida, Georgia; 37, 87, 94, 122.)
 x 1976 Mármol B., A.E. (Peru; 32.)
 x 1986 Colmenero-R., L. ("*P. aff. natatum*"; Mexico; 595-596.)
- Food Plants: *Paspalum acuminatum* (Gramineae)
 x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 225.)
 x 1981 Best, R.C. (review; 20.)
- Food Plants: *Paspalum fasciculatum* (Gramineae)
 x 1974 Mondolfi, E. (Venezuela; 14.)
 x 1981 Best, R.C. (review; 10, 12.)
 x 1981 Montgomery et al. (Brazil; 83.)
 x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
 x 1990 Colares et al. (TI; Brazil; in capt.; 43.)
- Food Plants: *Paspalum paniculatum* (Gramineae)
 x *1965 Lluch B., D. (Mexico; in stomach contents; 410.)
 x 1981 Best, R.C. (review; 9.)
 x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 993.)
- Food Plants: *Paspalum pusillum* (Gramineae)
 x 1975 Pinto da Silveira, E.K. (Brazil; 224-225.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Paspalum repens* (Gramineae)
 x 1969 Allsopp, W.H.L. (Guyana; 347.)
 x 1974 Mondolfi, E. ("*Panicum repens*"; Venezuela; 14.)
 x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
 x 1981 Best, R.C. (review; 9-10, 12, 20.)
 x 1981 Montgomery et al. (TI; Brazil; 83-84.)
 x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)
 x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
 x 1987 Colares & Ferreira (Brazil; in capt.; 39.)
 x 1990 Colares et al. (TI; Brazil; in capt.; 43.)
 x 1991 Haigh, M.D. (Guyana; 341.)
- Food Plants: *Paspalum vaginatum* (Gramineae)
 x 1979 Hartman, D.S. (Florida; 48.)
- Food Plants: *Paspalum vergatum* (Gramineae)
 x 1969 Allsopp, W.H.L. (Guyana; not eradicated by manatees; 347.)
 x 1981 Best, R.C. (review; 9.)
 x 1991 Haigh, M.D. (Guyana; 341.)
- Food Plants: *Pennisetum* (Gramineae)
 x 1986 Timm et al. (Ecuador; 154.)
- Food Plants: *Pennisetum purpureum* (Gramineae)
 x 1988 Reeves et al. (Sierra Leone; 81.)
- Food Plants: *Phalaris aquatica* (Gramineae)
 x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 225.)
 x 1981 Best, R.C. (review; 20.)
- Food Plants: *Phaseolus ovatus* (Leguminosae)
 x 1981 Best, R.C. (review; 10.)
 x 1981 Montgomery et al. (Brazil; 83.)
- Food Plants: *Phaseolus pilosus* (Leguminosae)
 x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
- Food Plants: *Phragmites communis* (Gramineae)
 x 1981 Best, R.C. (review; 9.)
 x 1981 Powell & Waldron (St. Johns R., Florida; 50.)
 x 1981a Reynolds, J.E., III (Florida; 236-237, 240.)
 x 1986 Colmenero-R. & Hoz-Z. (Mexico; 1001.)
 1986 Shaul & Haynes (Jamaica)
- Food Plants: *Phyllospadix* (Potamogetonaceae)
 x 1978b Domning, D.P. (Bering Is.; 112.)
 x 1981 Best, R.C. (review; 16.)

- Food Plants: *Pistia* (Araceae)
x 1969 Allsopp, W.H.L. (Guyana; 345.)
x 1981 Asper & Searles (TM; Florida; in capt.; 121.)
- Food Plants: *Pistia stratiotes* (Araceae)
1897 Goeldi, E.A.
x 1924–
1925 Vosseler, J. (TI; in capt.; 65.)
x 1975 Pinto da Silveira, E.K. (Brazil; 224–225.)
x 1976 Mármol B., A.E. (Peru; 32.)
x 1981 Best, R.C. (review; 7–8, 10, 12–13, 17, 20.)
x 1981 Montgomery et al. (Brazil; 83.)
x 1983 Bengtson, J.L. (Florida; 1187.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 1001.)
x 1987 Colares & Colares (Brazil; seasonal abundance; 42–43.)
x 1990 Colares et al. (TI; Brazil; in capt.; 43.)
- Food Plants: *Polygonum senegalense* (Polygonaceae)
x 1948 Bessac & Villiers (Senegal; 188.)
x 1981 Best, R.C. (West Africa; 10.)
- Food Plants: *Pontederia* (Pontederiaceae)
x 1981 Best, R.C. (review; 9.)
- Food Plants: *Pontederia cordata* (Pontederiaceae)
x 1981 Best, R.C. (review; 10.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990.)
x 1986 Colmenero-R., L. (Mexico; 596.)
- Food Plants: *Pontederia rotundifolia* (Pontederiaceae)
x *1967 MacLaren, J.P. (Panama; 389, 392.)
x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
x 1981 Best, R.C. (review; 9, 20.)
- Food Plants: *Pontederia sagittata* (Pontederiaceae)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990.)
- Food Plants: *Portulaca grandiflora* (Portulacaceae)
x 1880 LeBaron, J.F. (“*Portulacca*”; Florida; 1005.)
x 1951b Moore, J.C. (“*Portulacca*”; Florida; 34.)
- Food Plants: *Posidonia* (Potamogetonaceae)
x 1963 Pfeffer, P. (Indonesia; 150.)
x 1968a Bertram & Bertram (m386.)
- Food Plants: *Posidonia australis* (Potamogetonaceae)
x 1976 Lipkin, Y. (review; 82, 91–92.)
x 1981 Best, R.C. (review; 14.)
- Food Plants: *Potamogeton* (Potamogetonaceae)
x 1878 Brown, A.E. (*Trichechus*; in capt.; 295.)
- x 1969 Allsopp, W.H.L. (Guyana; 345.)
- Food Plants: *Potamogeton pectinatus* (Potamogetonaceae)
x 1974a Hartman, D.S. (Florida; 32.)
x 1979 Hartman, D.S. (Florida; 46.)
x 1981 Best, R.C. (review; 9, 11, 20.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990, 1001.)
x 1990 Rathbun et al. (Florida; 18, 27.)
- Food Plants: *Quercus virginiana* (live oak; Fagaceae)
x *1986 O’Shea, T.J. (Florida; acorns; 183–185.)
- Food Plants: *Reussia rotundifolia* (Pontederiaceae)
x 1981 Best, R.C. (review; 10.)
x 1981 Montgomery et al. (Brazil; 83.)
- Food Plants: *Rhabdadenia biflora* (Apocynaceae)
x 1981 Best, R.C. (review; 8.)
x 1981a Domning, D.P. (Brazil; 91.)
x 1982 Best & Teixeira (Brazil; 44.)
- Food Plants: *Rhizoclonium* (green alga; Cladophoraceae)
x 1981 Best, R.C. (“*Rhizoclonium*”; review; 8, 12.)
x 1981a Reynolds, J.E., III (“*Rhizoclonium*”; Florida; 236.)
- Food Plants: *Rhizophora mangle* (Rhizophoraceae)
x 1979 Hartman, D.S. (Florida; 47–48.)
x 1981 Best, R.C. (review; 7, 9–10.)
x 1982 Best & Teixeira (Brazil; 44.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990, 1002.)
- Food Plants: *Ruppia* (Ruppiaceae)
x 1969 Allsopp, W.H.L. (Guyana; 345.)
- Food Plants: *Ruppia maritima* (Ruppiaceae)
x 1974a Hartman, D.S. (Florida; 31–35, 107.)
x 1975 Pinto da Silveira, E.K. (Brazil; 224–225.)
x 1977 Campbell & Irvine (Florida; 249.)
x 1979 Hartman, D.S. (Florida; 46, 51, 56–57, 139.)
x 1981 Best, R.C. (review; 7, 9, 21.)
x 1984 Powell & Rathbun (Florida; 15, 17–18, 24.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990, 1001.)
x 1990 Rathbun et al. (Florida; 17–18, 27.)
- Food Plants: *Sabal palmetto* (Palmae)
x 1981 Best, R.C. (review; 19.)
x 1981 Powell & Waldron (Blue Spring, Florida; 49.)
- Food Plants: *Sagittaria* (Alismataceae)
x 1878 Brown, A.E. (*Trichechus*; in capt.; 295.)
x 1969 Allsopp, W.H.L. (Guyana; 345.)
x 1981 Best, R.C. (review; 8, 12, 20.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989.)

- Food Plants: *Sagittaria graminea* (Alismataceae)
x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
- Food Plants: *Sagittaria guyanensis* (Alismataceae)
x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
- Food Plants: *Sagittaria latifolia* (Alismataceae)
x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
- Food Plants: *Salvinia* (Salviniaceae)
x 1966b Bertram & Bertram (Africa; weed control; 216.)
x 1969 Allsopp, W.H.L. (Guyana; 345.)
x 1981 Best, R.C. (review; 21.)
- Food Plants: *Salvinia auriculata* (Salviniaceae)
x 1981 Best, R.C. (TI; Brazil; 10, 12.)
x 1981 Montgomery et al. (Brazil; 83.)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990.)
x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
x 1990 Colares et al. (TI; Brazil; in capt.; 43.)
- Food Plants: *Salvinia minima* (Salviniaceae)
x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990.)
- Food Plants: *Salvinia minor* (Salviniaceae)
x 1981 Best, R.C. (TI; Brazil; 10.)
x 1981 Montgomery et al. (Brazil; 83.)
- Food Plants: *Salvinia oblongifolia* (Salviniaceae)
x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
- Food Plants: *Salvinia rotundifolia* (Salviniaceae)
x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
x 1979 Hartman, D.S. (Florida; 47.)
x 1981 Best, R.C. (review; 9.)
- Food Plants: *Salvinia sprucei* (Salviniaceae)
x 1981 Best, R.C. (TI; Brazil; 10.)
x 1981 Montgomery et al. (Brazil; 83.)
- Food Plants: *Sambucus canadensis* (Caprifoliaceae)
x 1981 Best, R.C. (review; 8.)
x 1981 Powell & Waldron (St. Johns R., Florida; 50.)
- Food Plants: *Sargassum* (brown alga; Sargassaceae)
x 1973 Spain & Heinsohn (Queensland; after cyclone; 678-680.)
x 1974 Heinsohn & Spain (Queensland; after cyclone; 151.)
x 1981 Best, R.C. (review; 14.)
- Food Plants: *Scirpus* (Cyperaceae)
x 1981 Best, R.C. (review; 8.)
- Food Plants: *Scirpus cubensis* (Cyperaceae)
x 1983 Best, R.C. (TI; Brazil; 61.)
x 1987 Colares & Colares ("*Scyrpus*"; Brazil; seasonal abundance; 42-43.)
- Food Plants: *Scleria cyperina* (Cyperaceae)
x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
x 1981 Best, R.C. (review; 20.)
- Food Plants: *Scleria luteola* (Cyperaceae)
x 1981 Best, R.C. (review; 20.)
- Food Plants: *Scleria paludosa* (Cyperaceae)
x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- Food Plants: *Scleria pterota* (Cyperaceae)
x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
x 1981 Best, R.C. (review; 20.)
- Food Plants: *Simaba guianensis* (Palmaceae)
x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- Food Plants: *Spartina alterniflora* (Gramineae)
x 1974a Hartman, D.S. ("*Spartina*"; Florida, Georgia; 37, 67, 73, 79.)
1978 Ronald et al. (Guyana)
1979 Hardisky, M. (Georgia)
x 1979 Hartman, D.S. (Florida; 48.)
x 1982 Rathbun et al. (Georgia; 153.)
x *1989 Baugh et al. (Florida, Georgia; 88-90.)
- Food Plants: *Spartina bakeri* (Gramineae)
x 1983a Kinnaird, M.F. (Florida; 44.)
- Food Plants: *Spartina brasiliense* (Gramineae)
x 1981 Best, R.C. (review; 9.)
xv 1981a Domning, D.P. ("paraturá"; Brazil; 91.)
x 1982 Best & Teixeira (Brazil; 44.)
- Food Plants: *Spirogyra* (green alga; Zygnemataceae)
x 1981 Best, R.C. (review; 8, 12.)
x 1981a Reynolds, J.E., III (Florida; 236.)
x 1986 Colmenero-R., L. (Mexico; 596.)
- Food Plants: *Spyridia* (red alga; Rhodophyta)
x 1973 Spain & Heinsohn (Queensland; after cyclone; 678.)
x 1981 Best, R.C. (review; 14.)

- Food Plants: *Styopodium zonale* (brown alga; Phaeophyta)
- x 1976 Lipkin, Y. (Red Sea; 88, 92.)
- x 1981 Best, R.C. (review; 14.)
- Food Plants: *Symmeria* (Polygonaceae)
- x 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
- Food Plants: *Syringodium filiforme* (Potamogetonaceae)
- x 1974a Hartman, D.S. (Florida; 32-36, 101, 107, 109, 114, 160.)
- x 1977 Campbell & Irvine (Florida; 250.)
- x 1979 Hartman, D.S. (Florida; 46-47, 51, 56-57, 139.)
- x 1981 Best, R.C. (review; 9.)
- x 1984 Packard, J.M. (Florida; 21-22.)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990, 1001.)
- x 1987 Estrada & Ferrer (Cuba; 9.)
- x 1990a Domning, D.P. (Florida; 34.)
- x *1991 Provancha & Hall (Florida; 87-98.)
- Food Plants: *Syringodium isoetifolium* (Potamogetonaceae)
- x 1971 Kingdon, J. ("Syringodium"; East Africa; 395.)
- x *1972 Heinsohn & Birch (Queensland; not eaten; 419.)
- x *1976 Lipkin, Y. (Red Sea; 82, 87-92.)
- x 1981 Best, R.C. (review; 14, 23.)
- x 1981 Channells & Morrissey (Queensland; technique for identification in stomach samples; 307-309.)
- x 1981 Johnstone & Hudson (Papua New Guinea; 685, 688.)
- x 1982 Marsh et al. (Queensland; 58.)
- x 1993 Erfteimeijer et al. ("Syringodium"; South Sulawesi; 231.)
- Food Plants: *Thalassia* (Hydrocharitaceae)
- x *1972 Heinsohn & Birch (Queensland; not eaten; 418, 422.)
- x 1981 Nietschmann & Nietschmann (Torres Strait; m57.)
- x 1982 Marsh et al. (Queensland; 58-61.)
- Food Plants: *Thalassia hemprichii* (Hydrocharitaceae)
- x 1976 Lipkin, Y. (Red Sea; 89, 91, 94, 96.)
- x 1981 Best, R.C. (review; 14.)
- x 1981 Channells & Morrissey (Queensland; technique for identification in stomach samples; 304, 307-309.)
- x 1981 Johnstone & Hudson (Papua New Guinea; 685, 687-688.)
- x 1981 Santiapillai, C. (Sri Lanka; 3.)
- x 1984 Nietschmann, B. (Torres Strait; 636-637.)
- x 1993 Erfteimeijer et al. (South Sulawesi; 231-232.)
- Food Plants: *Thalassia testudinum* (Hydrocharitaceae)
- x 1974a Hartman, D.S. (Florida; 31-36, 107, 109, 122, 149, 155, 160, 168.)
- x 1977 Campbell & Irvine (Florida; 250.)
- x 1979 Hartman, D.S. (Florida; 46-47, 51, 56, 139.)
- x 1981 Best, R.C. (review; 8.)
- x 1984 Packard, J.M. (Florida; 21-22.)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 1001-1002.)
- x 1987 Estrada & Ferrer (Cuba; 9.)
- Food Plants: *Thalassiophyllum clathrus* (brown alga; Laminariaceae)
- x 1978b Domning, D.P. (Bering Is.; 112.)
- x 1981 Best, R.C. (review; 16.)
- Food Plants: *Thalassodendron* (Potamogetonaceae)
- x 1981 Nietschmann & Nietschmann (Torres Strait; m57.)
- x 1982 Marsh et al. (Queensland; "probably eaten"; m61.)
- Food Plants: *Thalassodendron ciliatum* (Potamogetonaceae)
- x *1976 Lipkin, Y. (Red Sea; 82, 87-92, 96.)
- x 1981 Best, R.C. (review; 14, 23.)
- x 1981 Channells & Morrissey (Queensland; m304.)
- x 1984 Nietschmann, B. (Torres Strait; 636-637.)
- Food Plants: *Theobroma cacao* (cocoa; Sterculiaceae)
- x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 225.)
- x 1981 Best, R.C. (review; 19.)
- Food Plants: *Theobroma grandiflorum* (cocoa; Sterculiaceae)
- x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 225.)
- x 1981 Best, R.C. (review; 19.)
- Food Plants: *Tradescantia diuretica* (Commelinaceae)
- x 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224-225.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Typha* (Typhaceae)
- x 1969 Allsopp, W.H.L. (Guyana; 346.)
- Food Plants: *Typha augustifolia* (Typhaceae)
- x 1981 Best, R.C. (review; 9.)
- Food Plants: *Typha domingensis* (Typhaceae)
- x 1975 Pinto da Silveira, E.K. (Brazil; 224.)
- x 1979 Hartman, D.S. (Florida; 48.)
- x 1981 Best, R.C. (review; 21.)
- x 1986 Colmenero-R. & Hoz-Z. (Mexico; 990, 1001.)
- Food Plants: *Typha latifolia* (Typhaceae)
- x 1983 Tiedemann, J.A. (Turkey Creek, Florida; 6.)
- Food Plants: *Udotea argentea* (green alga; Udoteaceae)
- x 1976 Lipkin, Y. (Red Sea; 94.)

- 1981 Best, R.C. (review; 14.)
- Food Plants: *Ulva* (green alga; Ulvaceae)
- 1969 Allsopp, W.H.L. (Guyana; 345.)
- 1974a Hartman, D.S. (Florida; 73.)
- 1981 Best, R.C. (review; 20.)
- 1984 Lewis et al. (Florida; 189-190.)
- Food Plants: *Ulva lactuca* (green alga; Ulvaceae)
- 1908b Gudematsch, J.F. (TM; in capt.; 231.)
- Food Plants: *Ulva latissima* (green alga; Ulvaceae)
- 1875 Chapman, H.C. (*Trichechus*; in capt.; m459.)
- 1968 Lemire, M. (m492.)
- Food Plants: *Utricularia* (Lentibulariaceae)
- 1960 Allsopp, W.H.L. (Guyana; 762.)
- 1963 Bertram & Bertram (Guyana; m92.)
- 1981 Best, R.C. (review; 8, 20.)
- 1986 Colmenero-R. & Hoz-Z. ("*U. aff. gibba*"; Mexico; 989.)
- Food Plants: *Utricularia foliosa* (Lentibulariaceae)
- 1969 Allsopp, W.H.L. (Guyana; 345, 347.)
- 1981 Best, R.C. (review; 10, 12.)
- 1981 Montgomery et al. (Brazil; 83.)
- 1986 Timm et al. (Ecuador; 154.)
- 1987 Colares & Colares (Brazil; seasonal abundance; 42-43.)
- 1991 Haigh, M.D. (Guyana; 341.)
- Food Plants: *Utricularia minor* (Lentibulariaceae)
- 1981 Best, R.C. (review; 10.)
- 1981 Montgomery et al. (Brazil; 83.)
- Food Plants: *Vallisneria* (Hydrocharitaceae)
- 1969 Allsopp, W.H.L. (Guyana; 345.)
- Food Plants: *Vallisneria americana* (Hydrocharitaceae)
- 1981 Powell & Waldron (Blue Spring, Florida; 49-50.)
- 1983 Bengtson, J.L. (Florida; 1187.)
- 1983a Kinnaird, M.F. (northeastern Florida; 44.)
- 1985 Etheridge et al. (TM; Florida; consumption rate; 21-23.)
- 1986 Colmenero-R. & Hoz-Z. (Mexico; 989, 992, 1001.)
- Food Plants: *Vallisneria neotropicalis* (Hydrocharitaceae)
- 1974a Hartman, D.S. (Florida; 32, 74-75, 78, 90, 92.)
- 1975 Pinto da Silveira, E.K. (Brazil; in capt.; 224.)
- 1977 Campbell & Irvine (Florida; 249-250.)
- *1979 Hartman, D.S. (Florida; 46, 51-52, 56-57, 139.)
- 1981 Best, R.C. (review; 7-8.)
- Food Plants: *Vallisneria spiralis* (Hydrocharitaceae)
- 1875 Chapman, H.C. (*Trichechus*; in capt.; m456, 459, m461.)
- x 1968 Lemire, M. (m492.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Vaucheria* (yellow-green alga; Vaucheriaceae)
- x 1981 Best, R.C. (Florida; 8.)
- x 1981a Reynolds, J.E., III (Florida; 236.)
- Food Plants: *Victoria regia* (= *Victoria amazonica*) (Nymphaeaceae)
- 1909 Dilg, C. (TI; seed capsules; 135.)
- x 1969 Allsopp, W.H.L. (Guyana; young plants; 345.)
- Food Plants: *Vigna luteola* (Fabaceae)
- x 1975 Pinto da Silveira, E.K. (Brazil; 225.)
- x 1981 Best, R.C. (review; 20.)
- Food Plants: *Vigna repens* (Fabaceae)
- x 1979 Hartman, D.S. (Florida; 48.)
- Food Plants: *Vossia* (Gramineae)
- x 1969 Allsopp, W.H.L. (TS; in capt.; 351.)
- Food Plants: *Vossia cuspidata* (Gramineae)
- x 1981 Best, R.C. (review; 10.)
- Food Plants: *Zostera* (Potamogetonaceae)
- x 1905 Townsend, C.H. (TM; in capt.; 97.)
- x 1963 Pfeffer, P. (Indonesia; 150.)
- x 1968a Bertram & Bertram (m386.)
- x 1971 Kingdon, J. (East Africa; 395.)
- x *1976 Allen et al. (South Sulawesi; 35-37.)
- x 1979 Tas'an et al. (Indonesia; in capt.; 19.)
- x 1982 Marsh et al. (Queensland; 58-59, 63.)
- Food Plants: *Zostera capensis* (Potamogetonaceae)
- x 1976 Lipkin, Y. (review; 82, 91.)
- x 1981 Best, R.C. (review; 14.)
- Food Plants: *Zostera capricornis* (Potamogetonaceae)
- x 1906b Dexler & Freund (Australia; 56.)
- x 1924a Petit, G. (m126.)
- x 1928 Prater, S.H. (Australia; 88.)
- x 1962 Marlow, B.J. ("*Z. capricorni*"; Australia; 433.)
- x 1968 Lemire, M. ("*Z. capricorni*"; m514.)
- x 1972 Heinsohn & Birch ("*Z. capricorni*"; Queensland; 416-417, 419, 422.)
- x 1976 Lipkin, Y. ("*Z. capricorni*"; review; 82, 91.)
- x 1978 Anderson & Birtles ("*Z. capricorni*"; Queensland; 19.)
- x 1981a Anderson, P.K. ("*Z. capricorni*"; DD; Australia; feeding behavior; 641.)
- x 1981b Anderson, P.K. (DD; Australia; feeding behavior; 96.)
- x 1981 Best, R.C. (review; 14.)

- x 1981 Channells & Morrissey (Queensland; technique for identification in stomach samples; 307–309.)
- Food Plants: *Zostera marina* (Potamogetonaceae)
- x 1908b Gudernatsch, J.F. (TM; in capt.; 231.)
- x 1916a Anon. (TI; in capt.; 1421.)
- x 1976 Tas'an (Indonesia; 5.)
- x 1980 Kataoka & Asano (DD; in capt.; 269–270.)
- x 1981 Best, R.C. (review; 14, 20, 23.)
- x 1981 Kataoka & Asano (DD; in capt.; 199–200.)
- Formosa: SEE Taiwan
- France
- *1833 Hamilton, R. (manatee stranded near Dieppe)
- x 1835a Duvernoy, G.L. (unidentified sir.; Roedersdorf; 1–9, 1 pl.)
- x 1838 Serres, M. de (*Manatus* & *Halicore medius*; Plioc., Montpellier; 285–286.)
- x 1846 Gervais, F.L.P. (*Metaxytherium*; Montpellier; m264.)
- x *1847b Gervais, F.L.P. (*Halitherium Serresii*, n.sp.; Plioc., Montpellier; 210–217, 221.)
- x *1866 Lartet, E. (*Rytiodus Capgrandi*, n.gen.n.sp., Mioc., 673–674; other sirs., 682–684.)
- x 1870 Delfortrie, E. (*Halitherium*; Early Mioc.; bones scarred by fish teeth; 261.)
- x 1871 Farge, E. (“*Halitherium*”; Middle Mioc.; 265–268.)
- x 1872 Farge, E. (“*Halitherium*”; Middle Mioc.; 412–416.)
- x 1880 Delfortrie, E. (*Rytiodus*; Mioc.; 131–135.)
- x *1884 Gaudry, A. (*Halitherium Chouqueti*, n.sp.; Olig., Paris Basin; 372–375.)
- 1885b Flot, L. (*Halitherium schinzii*; Montmorency)
- x *1887 Flot, L. (*Prohalicore Dubaleni*, n.gen.n.sp., Mioc., Landes, 134, 138; “*Halitherium* n.sp.,” Eoc., 138.)
- 1892 Viguier, M.-G. (*Halitherium* sp.; Plioc., Montpellier)
- x 1914 Depéret, C. (*Felsinotherium serresi*; Plioc.; 1858–1862.)
- 1934b Sickenberg, O.
- 1946 Richard, M. (“*Eotherium* sp.”; Late Eoc.)
- 1963 Patte, E. (*Halitherium*; Olig., Poitou [erroneous record])
- 1964 Rey, R. (*Halitherium*)
- x 1969 Freudenthal, M. (Eoc. sirs.; Taulanne; 64–65.)
- x 1970 Chavanon & Saubade (*Halitherium*; Olig., Gironde; 261–262.)
- x 1970 Ginsburg, L. (*Halianassa cuvieri*; Mioc., Loire Basin; 189.)
- x 1971 Ginsburg & Janvier (*Metaxytherium medium*; Mioc.; 161, 183–184, 189.)
- 1972 Sittler, C. (*Halitherium schinzii*; Olig., Sundgau; 113.)
- x 1974 Anglada et al. (*Halitherium* sp.; Mioc., Sausset; 1–2.)
- x 1974 Patte, E. (corrects erroneous record of *Halitherium* from Poitou; 24.)
- x 1979 Ginsburg et al. (*Metaxytherium medium*; Mioc., Doué-la-Fontaine; 224, 226.)
- 1979 Viaud, J.-M. (*Halitherium*)
- x *1987 Domning & Thomas (*Metaxytherium serresii*; Plioc., Montpellier; 206, 228–229.)
- French Guiana
- 1664 Biet, A.
- x 1743 Barrere, P. (TMM; 159–162, 1 pl.)
- x 1805 Pitou, L.-A. (TMM; gen. acc.; 2: 259–260.)
- x 1963 Bertram & Bertram (TMM; status; m91.)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 587, 608.)
- Fucotherium* Kaup, 1840 (= *Metaxytherium*)
- x *1840 Kaup, J.J. (published as syn. of *Metaxytherium*; 675.)
- x 1872a Gill, T. (in classification; 92.)
- x 1932a Simpson, G.G. (“*Furcotherium*”; m481.)
- x 1978c Domning, D.P. (syn. of *Metaxytherium*; m577.)
- Genetics
- x 1970 Loughman et al. (TI; karyotype; 151–152, pl. 49.)
- x 1976 White et al. (TML; karyotype; 413, 416–417.)
- 1977 White et al. (TML; karyotype)
- x 1984 Short, R.V. (DD; chromosomes; 383–384.)
- x 1988 Assis et al. (TI; karyotype; 41–50.)
- x 1988 McClenaghan & O’Shea (TML; genetic variability; 481–488.)
- x 1993 Bradley et al. (TML; cytochrome b DNA sequence; 197–202.)
- Geographic Information Systems: SEE Conservation
- Georgia (U.S.)
- 1884 Flower & Garson (Eoc. sir.)
- x *1956 Tomkins, I.R. (TML; 288–289.)
- x 1958 Tomkins, I.R. (TML; 154.)
- x 1966 Kellogg, R. (supposed sir. tusk [actually sperm whale tooth]; ?Mioc.; 78.)
- x 1969 Voorhies, M.R. (supposed sir. [actually entelodont]; Eoc.; 93–94.)
- x 1970 Pickering, S.M., Jr. (“*Eosiren* sp.?”; Eoc.; m20.)
- 1973 Voorhies, M.R.
- x *1974a Hartman, D.S. (TML; 54–61.)
- x 1974 Voorhies, M.R. (indeterminate sir. ribs; Mioc., Statenville Local Fauna; 228.)
- x 1978 Irvine & Campbell (TML; aerial sightings; 615.)

- 1979 Hardisky, M. x
- x 1982 Domning, Morgan & Ray (*Eoc. sirs.*; 4, 6, 11-12.) x
- x *1982 Rathbun et al. (TML; 153-154, 157-164.) x
- x 1985 Ralph et al. (TML; m55.) x
- 1988 Marine Mammal Commission (TML; habitat protection needs) x
- x *1988a O'Shea, T.J. (TML; 185, 187-188, 197-199.) x
- x 1989 Baugh et al. (TML; Cumberland Sound; feeding on *Spartina*; 88-90.) x
- x 1989b Domning, D.P. (*Metaxytherium*; Mioc., Suwannee R.; 58-59.) x
- x 1989 Morgan, G.S. (*Metaxytherium*; Mioc., Suwannee R.; 50.) x
- x 1989 Palmer, D. (TML; construction of artificial warm-water refugium; 7.) x
- x 1989 Reid & O'Shea (TML; satellite tracking; 221, 227, 230.) x
- x 1993 Turner & Buckingham (TML; Kings Bay Naval Submarine Base; accidental mortality & manatee protection plan; 1, 10-11.) x
- Germany
- x *1834 Kaup & Scholl (*Pugmeodon Schinzii*, n.gen.n.sp. [nomen nudum]; Olig., Flonheim; 16.) x
- x 1835 Jäger, G.F.v. (indeterminate sir.; Mioc., Baltringen; 3-4, pl. 9.) x
- x *1838a Kaup, J.J. (*Halytherium*, n.gen.; *Pugmeodon Schinzii*, n.gen.n.sp.; Olig.; 319.) x
- x 1839b Meyer, H.v. (*Halianassa Studeri*; Lössrach; 77.) x
- 1850 Jäger, G.F.v. x
- x 1861 Van Beneden, P.J. (*Halitherium*; Darmstadt; 481.) x
- *1882 Lepsius, G.R. (*Halitherium schinzii*) x
- 1923 Berry, E.W. (Mainz Basin) x
- 1957 Hunger & Magalowski x
- x 1962 Schäfer, W. (*Halitherium schinzi*; Olig.; 53-56.) x
- 1962 Wilhelm, W. (*Halitherium schinzi*; Olig.; 51-53.) x
- 1963 Pietzsch, K. (Middle Olig.) x
- *1965 Siegfried, P. x
- 1972 Schwenger, J. (Mainz Basin) x
- 1973 Eisvogel, G. (Mainz Basin) x
- 1973 Koehn, C. x
- 1978 Schäfer, W. (*Halitherium*) x
- x *1980 Tobien, H. (*Halitherium schinzii*; occurrences in Mainz Basin; 207-209.) x
- 1982 Fischer & Krumbiegel (*Halitherium schinzii*; Leipzig area) x
- x 1982 Fischer, K. (*Halitherium schinzii*; Middle Olig., Leipzig; 151-153.) x
- x 1986a Pilleri, G. (sir. premolar; Mioc., Baltringen; 18, 22, pl. 5.) x
- *1986 Rothausen, K. x
- Greenland
- x *1780 Fabricius, O. ("*Trichechus manatus*"; skull; 6.) x
- 1809a Cuvier, G. (HG; based on Fabricius; 299.) x
- x 1825a Harlan, R. (HG; based on Fabricius; m281.) x
- x 1828 Fleming, J. ("*Manatus borealis*"; based on Fabricius; 29.) x
- x 1840 Baer, K.E.v. (HG; based on Fabricius; 64.) x
- x 1978b Domning, D.P. (specimen of Fabricius probably TM; 138-139.) x
- Growth Rates
- x 1924- x
- 1925 Vosseler, J. (TI; in capt., Hamburg; 124, 168-172.) x
- x 1967a Jones, S. (DD; in capt., India; 218.) x
- x 1972 Heinssohn, G.E. (DD; Queensland; 208-211.) x
- x 1979 Tas'an et al. (DD; in capt., Jakarta; body size & tail shape; 9-13.) x
- x 1980 Dekker, D. (TMM; in capt., Amsterdam; 26.) x
- x 1980 Marsh, H. (DD; Australia; calculated growth curves; 189-190, 198.) x
- x 1981 Best, R.C. (TI; in capt., Manus; 0.8 kg/week on milk diet; 21.) x
- x 1981 Cardeilhac et al. (TML; in capt., St. Augustine, Florida; on milk diet; 143.) x
- x 1981 Kataoka & Asano (DD; in capt., Toba, Japan; 202.) x
- x *1981 Odell, D.K. (TML; in capt., Miami; 131-140.) x
- x 1981 Zeiller, W. (TML; in capt., Miami; 106.) x
- x 1982 Best, Ribeiro et al. (TI; in capt., Manus; on artificial formulas; 266.) x
- x 1984 White, Francis-Floyd & Waterstrat (TML; in capt.; 30-34.) x
- 1988a Qiu Y.-X. (TM; in capt., Beijing; 36-37.) x
- x 1990 O'Shea & Reep (wild TML; Florida; brain & body size; 535-541.) x
- 1992 Grubel da Silva, Soavinski et al. (TMM; in capt., Brazil) x
- Guatemala (SEE ALSO: Central America)
- 1722 SEE Ximénez, F., 1967. x
- x 1883 Stoll, O. (TMM; Lake Izabal; m346.) x
- 1887 Brigham, W.T. (TMM) x
- x 1947 Marden, L. (TMM; 546, 552, 558.) x
- 1980 Janson, T. (TMM) x
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 581-582, 606.) x
- Guyana (formerly British Guiana)
- 1596 Raleigh, W. x
- 1698 Grillet & Bechamel x
- x 1769a Bancroft, E. (TMM; gen. acc.; 186-187.) x
- x 1769b Bancroft, E. (TMM; gen. acc.; 112-113.) x
- x 1807 Bolingbroke, H. (TMM; gen. acc.; 234.) x
- x 1848 Schomburgk, R. (TMM, ?TI; distr. & in capt.; 786.) x
- *1866 Duff, R. x
- x 1875 Anon. (TMM from Demerara; in capt., London; 295.) x

- x 1876 Chapman, H.C. (TMM from Demerara; in capt., London; 459.)
- x 1880 Murie, J. (TMM; in capt.; 21.)
- x 1889 Anon. (TMM from Demerara; in capt., London; 527–528.)
- x 1898 Kirke, H. (TMM; 134–135.)
- 1907 Heilprin, A.
- x 1912 Rodway, J. (TMM; superstition; 84.)
- 1915 Roth, W.E.
- 1916 Board Agric. Br. Guiana
- 1917 Beebe et al. (TMM; charms)
- 1919 Beebe, W. (TMM; 226.)
- x 1920 Beebe, W. (TMM; in capt., Georgetown; 730–732.)
- 1921 Anthony, H.E.
- *1925 Berkel, A.v. (TMM; earliest [17th century] account?)
- x 1937 Turner, J.P. (TMM; photo; 498.)
- 1941 Roth, V.
- 1957 Burton, M. (TMM; photo)
- x 1960 Allsopp, W.H.L. (TMM; weed control; 762.)
- x 1960a Anon. (TMM; weed control; 58.)
- 1960 McTurk, W.H.
- 1961 Roth, V.
- x 1962 Bertram & Bertram (TMM; weed control; 1329.)
- x 1963 Bertram & Bertram (TMM; status, distr., & econ. use; 90–93.)
- *1963 Bertram, G.C.L. (TMM; gen. acc.)
- x *1964a Bertram & Bertram (TMM; behavior & ecology; 115–120.)
- 1964 Norwood, V.G.C.
- 1968 Hanif & Poonai
- x *1969 Allsopp, W.H.L. (TMM; weed control experiments; 344–350.)
- x *1973a Anon. (TMM; weed control; workshop report; 4–5, 17–19.)
- x 1973 Bertram & Bertram (TMM; distr. & status; 320–321.)
- *1974c Anon. (workshop report on Manatee Research Centre)
- x 1974 Bertram, G.C.L. (proposed Manatee Research Centre; 12–13, 19.)
- x 1974 Sanger, C. (TMM; weed control; captive breeding; 23.)
- x 1974a Spurgeon, D. (TMM; weed control; 238–239.)
- x 1974b Spurgeon, D. (TMM; weed control; 10–11.)
- x 1974b Vietmeyer, N.D. (TMM; weed control; 60–64.)
- x 1977 Bertram & Bertram (history & status of INCERE-MAN project; 106–108.)
- x 1977 Van Bree & Duguy (TMM; 292.)
- 1987 Bertram, G.C.L. (TMM)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 586, 608.)
- x *1991 Haigh, M.D. (TMM; weed control; 339–349.)
- Haiti
- x 1851 Gosse, P.H. (TMM; 346–347.)
- x 1942 Morison, S.E. (TMM; sighted by Columbus; 309–310.)
- x 1985 Rathbun, Woods & Ottenwalder (TMM; status & distr.; 234–236.)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 575, 601.)
- Halianassa* von Meyer, 1838 (= *Halitherium*, in part; *Metaxytherium*, in part; *Protosiren*, in part)
- x *1838 Meyer, H.v. (n.gen.; 667.)
- x 1840a Meyer, H.v. (additional material; m587.)
- x 1840b Meyer, H.v. (synonymy; 587.)
- x 1843 Meyer, H.v. (considered to include Flonheim sirs. & *Halitherium Christolii*; 702, 704.)
- x 1847b Gervais, F.L.P. (syn. of *Halitherium*; 207, 220.)
- x 1857 Jäger, G. (comp. w/ *Dugong*; 98.)
- x 1872a Gill, T. (synonymy; 92.)
- *1887 Studer, T.
- x 1906 Abel, O. (dentition; 51.)
- x 1941 Kretzoi, M. (in classification; 154–155.)
- x 1942b Kaltenmark, J. (m103.)
- x 1945 Simpson, G.G. (in classification; 135, 251.)
- x 1951 Reinhart, R.H. (nomenclature; m209–211.)
- x *1952 Thenius, E. (syn. of *Halitherium*; 110–111.)
- x 1963 Mitchell & Repenning (occurrence in Pacific; 13–14.)
- x *1966 Kellogg, R. (review; 68–69.)
- x 1966 Mitchell, E.D., Jr. (artist's reconstruction; 59.)
- 1966c Shikama, T.
- x 1970 Shikama & Domning (syn. of *Metaxytherium*; 395.)
- x 1971 Ginsburg & Janvier (not senior to *Metaxytherium*, 183–184; comp. w/ *M. medium*, 188.)
- x 1973 Crusafont-Pairó, M. (Spain; occurrences & bibliography; 96–97.)
- 1976 Reinhart, R.H. (syn. of *Metaxytherium*; 191–192.)
- x 1977 Savage & Tewari (syn. of *Metaxytherium*; m216.)
- x 1978c Domning, D.P. (*H. sensu Studer*; phyletic position; 577, 579.)
- x 1982 Kleinschmidt, A. (m378–380.)
- x 1982 Ridgway, B. (Hawthorn Formation [Mioc.], Florida; 13.)
- x 1987 Domning & Thomas (*H. Studer* a syn. of *Metaxytherium*; 207.)
- x *1987b Domning, D.P. (proposed suppression, as syn. of *Halitherium*; 122–125.)
- x *1989 ICZN (name suppressed; 83–84.)
- Halianassa allisoni* Kilmer, 1965 (= *Dioplotherium allisoni*)
- x *1965 Kilmer, F.H. ("*H.(?) allisoni*"; n.sp.; Mioc., Baja California; 57–74.)

- x 1970 Shikama & Domning (m395.)
 x 1977b Domning, D.P. (role in North Pacific paleoecology; 353–354, 356–357, 360.)
 x *1978b Domning, D.P. (referred to *Dioplotherium*; 4–5.)
- Halianassa brocchii* (de Blainville, 1844) Bronn, 1848 (= *Metaxytherium subapenninum*)
 *1855 Kaup, J.J. (n.comb.)
- Halianassa collinii* von Meyer, 1846 (= *Halitherium christolii*, in part; *Halitherium schinzii*, in part)
 x *1846 Meyer, H.v. (n.sp.; considered to include *Pugmeodon Schinzi* & *Manatus Schinzi*; 328.)
 x 1847 Meyer, H.v. (Linz, Austria; 189–190.)
 1855 Ehrlich, F.C.
 1867 Hauer, F.v.
 x 1867 Peters, K.F. (m309.)
 x 1966 Kellogg, R. (review; 69.)
- Halianassa cordieri* (de Christol in de Blainville, 1844) Bronn, 1848 (= *Metaxytherium medium*)
 *1848 Bronn, H.G. (n.comb.)
- Halianassa cuvieri* (de Christol, 1832) Bronn, 1848 (= *Metaxytherium medium*)
 *1848 Bronn, H.G. (n.comb.)
 x 1951 Reinhart, R.H. (comp. w/ *Trichechus*; 209.)
 x 1970 Ginsburg, L. (Mioc., France; 189.)
 x 1971 Ginsburg & Janvier (syn. of *Metaxytherium medium*; m182.)
 x 1973 Crusafont-Pairó, M. (Spain; occurrences & bibliography; 96–97.)
 1975 Crusafont-Pairó & Golpe Posse (Spain)
- Halianassa jordani* (Kellogg, 1925) Reinhart, 1951 (= *Dusisiren jordani*)
 x *1951 Reinhart, R.H. (n.comb.; brain; 210.)
 x 1963 Mitchell & Repenning (occurrence; 14.)
 x 1965 Kilmer, F.H. (comp. w/ *H. allisoni*; 64–65, 69, 71–72.)
 x 1978b Domning, D.P. (referred to *Dusisiren*; m21.)
- Halianassa studeri* von Meyer, 1838 (= *Halitherium schinzii*, in part; *Metaxytherium krahuletzii* and *M. medium*, in part; *Protosiren minima*, in part)
 x *1838 Meyer, H.v. (n.gen.n.sp.; 667.)
 x 1839a Meyer, H.v. (in faunal list; 4.)
 x 1839b Meyer, H.v. (m77.)
 x 1840 Kaup, J.J. (synonymy; 674–675.)
 x 1847b Gervais, F.L.P. (m208.)
 *1887 Studer, T.
 x 1914 Depéret, C. (comp. w/ *Metaxytherium* spp.; m1861.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 444–445, 475–478.)
 x *1952 Thenius, E. (referred to *Thalattosiren*; 110–112.)
 x *1966 Kellogg, R. (review, 68–69, pl. 43; comp. w/ *Metaxytherium calvertense*, 78.)
 x 1974 Fondi & Pacini (comp. w/ *Metaxytherium forestii*; 43.)
 x 1987 Domning & Thomas (*H. studeri* sensu Studer a ?syn. of *Metaxytherium krahuletzii*; 208, 223.)
 x *1987b Domning, D.P. (proposed suppression by designation of neotype; 122–125.)
 x *1989 ICZN (neotype designated, name suppressed; 83–84.)
- Halianassa vanderhoofi* Reinhart, 1959 (= *Dusisiren jordani*)
 *1959 Reinhart, R.H. (n.sp.)
 x 1963 Mitchell & Repenning (occurrence; 9, 14.)
 x 1965 Kilmer, F.H. (comp. w/ *H. allisoni*; 64–65, 69, 71–72.)
 x 1966 Kellogg, R. (comp. w/ *Metaxytherium calvertense*; 75, 77–78.)
 1966c Shikama, T.
 x 1967 Paula Couto, C. de (m346.)
 x 1970 Shikama & Domning (syn. of *Metaxytherium jordani*; 395.)
 x 1971b Domning, D.P. (syn. of *Metaxytherium jordani*; m217.)
 x 1972 Varona, L.S. (comp. w/ *Metaxytherium riveroi*; 7, 10.)
 x 1975 Domning & Frye (syn. of *Metaxytherium jordani*; m3.)
 x 1977b Domning, D.P. (syn. of *Metaxytherium jordani*; m354.)
 x *1978b Domning, D.P. (syn. of *Dusisiren jordani*; 21, 69–71.)
 x 1981 Clark, J.C. (Mioc., Santa Cruz, California; 28, 34.)
- Halianassinae* Reinhart, 1959 (subfamily; = *Halitheriinae*, in part; *Hydrodamalinae*, in part)
 *1959 Reinhart, R.H. (new subfamily; 8, 62–63.)
 x 1978b Domning, D.P. (divided between *Halitheriinae* & *Hydrodamalinae*; 3–4.)
- Halibutherium* Gloger, 1842 (nomen nudum; = *Halitherium*?)
 *1842 Gloger, C.
 x 1932a Simpson, G.G. (m481.)
- Halicore* Illiger, 1811 (= *Dugong*)
 x *1811 Illiger, C. (n.gen.; in classification; 140–141.)
 *1822 Fleming, J. ("*Halicora*"; unjustified emendation; 2:204.)
 x 1825 Gray, J.E. ("*Halicora*"; in classification; m341.)

- x 1827 Berthold, A.A. (in classification; 62.)
- x 1827 Billberg, G.J. (in classification; tab. A.)
- x 1828 Billberg, G.J. (in classification; tab. A.)
- x 1837 Burmeister, H. (in classification; 793.)
- x 1838a Kaup, J.J. (comp. w/ *Halytherium dubium*; 319.)
- x 1847b Gervais, F.L.P. ("*Halichore*"; comp. w/ *Halitherium serresii*, 211–217; comp. w/ *Toxodon*, 218–219.)
- x 1864 Dana, J.D. (in classification; m169.)
- x 1867c Brandt, J.F. (brain, comp. w/ *Trichechus* & *Hydrodamalis*; 269–270.)
- x 1867 Claudius, M. (ear region, comp. w/ HG; 10–11.)
- x 1870 Adams, A. (Sakhalin; 198.)
- 1870 Krauss, C.F.F.
- x 1872a Gill, T. (in classification; 92.)
- x 1872a Murie, J. (anatomy, comp. w/ TMM; 133, 135, 137, 141, 154, 166–167, 170–171, 173–174, 179, 183, 190–191.)
- x 1873 Gill, T. (phylogeny; 272.)
- x 1874 Flower, W.H. (comp. w/ *Halitherium*; 2–5.)
- x 1875a Owen, R. (brain; m102, m104–105.)
- x 1875 Wilder, B.G. (m111.)
- x 1878 Brown, A.E. (gen. acc.; 292–298.)
- x 1880 Cope, E.D. (squamosal foramina; 456.)
- x 1880 Zigno, A. de (comp. w/ *Halitherium veronense*; 294, 296.)
- x 1883a Cope, E.D. (m54.)
- x 1883b Cope, E.D. (comp. w/ *Dioplotherium*; 309.)
- x 1884 De Vis, C.W. (comp. w/ *Chronozoon*; 394.)
- x 1884 Doran, A.H.G. (ear ossicles, comp. w/ HG; 367–370.)
- x 1885a Woodward, H. (skull, m459; rostral pads, m460; brain, 461; manus, m462; tusks, m465; teeth, 467; m470, m472.)
- x 1887 Flot, L. (comp. w/ *Prohalicore*, 134–135, pl. 1; descent, 136–138.)
- xD 1888 Marsh, O.C. (thought related to *Desmostylus*; m96.)
- x 1889b Dollo, L. (comp. w/ *Miosiren*; 416, 418–421.)
- x 1889 Lefèvre, T. (descent from Olig. Belgian sir.; 199–200.)
- x 1890 Dollo, L. (comp. w/ *Miosiren*; m65.)
- x 1891 Flower & Lydekker (anatomy, 213–214, 220–221; m223.)
- x 1894 Dawson, G.M. (m156–157.)
- x 1895 Palmer, T.S. (syn. of *Dugong*; 449–450.)
- x 1897 Sinclair, W.F. (meat; m198.)
- x 1898 Anderson, R.J. (manus; 765–767.)
- x 1899 Palmer, T.S. (syn. of *Dugong*; m494.)
- x 1902a Osborn, H.F. (m714.)
- x 1903a Smith, G.E. (brain; m328.)
- x 1904 Eggeling, H. (sternum; 99.)
- x 1904a Lorenz, L.v. (pelvis; 1–8, 11, pl. 1.)
- x 1905 Toldt, C. (angular process of mandible; m337.)
- x 1906 Abel, O. (dentition; 50–51, 60.)
- 1910 Anon.
- x 1912 Issel, A. (Assab, Eritrea; comp. w/ *Felsinotherium subapenninum*; 121.)
- x 1914 Depéret, C. (comp. w/ *Felsinotherium*; 1860.)
- xD 1915 Hay, O.P. (comp. w/ *Desmostylus*; 385–389, 391.)
- x 1916a Matthew, W.D. (tooth formula; 26–28.)
- x 1922 Sonntag, C.F. (tongue; 646–647, 654.)
- x 1923 Nopcsa, F.v. (pachyostosis; m357.)
- x 1924–
- 1925 Vosseler, J. (German East Africa; feeding behavior; 225–226.)
- x 1942a Kaltenmark, J. (anatomy; gen. acc.; 53–54, 61–64.)
- x 1942b Kaltenmark, J. (comp. w/ *Metaxytherium* sp.; 106–108, 111–113.)
- x 1943 Kaltenmark, J. (nasals, 15–16, m18; phylogeny, 21.)
- x 1944 Zbyszewski, G. (humerus, comp. w/ *Metaxytherium petersi*; m72.)
- x 1945 Simpson, G.G. (syn. of *Dugong*; 135.)
- x 1952a Koenigswald, G.H.R.v. (lack of fossils in Indian Ocean, & vernacular name, m610; descent from *Indosiren*, 611.)
- 1957 Pronina, I.G.
- x 1960 Kappers et al. (epiphysis, spinal cord; 1: 286, 2: 1064.)
- 1972 Hasegawa, U.
- x 1978c Domning, D.P. (syn. of *Dugong*; m578.)
- Halicore australis* (Retzius, 1794) Owen, 1847 (= *Dugong dugon*)
- *1847 Owen, R. (n.comb.)
- x 1857 Fairholme, J.K.E. (Australia; 352–353.)
- 1860 Bennett, G. (Australia)
- 1876 Gill, W.W. (Torres Strait)
- x 1876 Southwell, T. (synonymy; 76.)
- x 1878 Brown, A.E. (gen. acc.; 293–298.)
- x 1881 Anon. (Australia; econ. use; 738–747.)
- x 1882 Faithful, P. (Moreton Bay, Queensland; 4–7, 9–11, 13, 15.)
- x 1883 Wallace, A.R. (Queensland; 54.)
- x 1885a Woodward, H. (teeth; 467–468.)
- x *1886 Miklouho-Maclay, N. de (brain; 193–196, pl. 24.)
- x *1887 Ward, H.L. (vertebrae, pelvis; 536.)
- 1888 Senior, W. (Moreton Bay, Queensland)
- x 1891 Flower & Lydekker (econ. use; 221.)
- 1893 Kent, W.S. (Queensland)
- x 1904a Lorenz, L.v. (pelvis; 1–7, pl. 1.)
- x 1905 De Vis, C.W. (comp. w/ *H. brevirostris*; 27–29.)
- x *1906 Annandale, N. (synonymized with *H. dugong*; 238.)

- x 1923 Sowerby, A. de C. (m135.)
- x 1924a Petit, G. ("*H. australe*"; distr. comp. w/ other species; 124–125.)
- x 1925 Kellogg, R. (comp. w/ *Metaxytherium jordani*; 67–69.)
- x 1929 Birulia, A.A. (pelvis, comp. w/ HG; m88–89.)
- x 1933b Dollman, G. (comp. w/ African dugong; m16.)
- x 1934 Hirasaka, K. ("*H. australe*"; distr.; 4222.)
- x 1937 Promus, J. (Queensland; netting; 40–41.)
- x 1940 Pocock, R.I. (syn. of *Dugong dugon*; 330–331.)
- x 1942a Kaltenmark, J. ("*H. australe*"; m56.)
- x 1954b Friant, M. (brain; 134.)
- x *1967 Welsby, T. (Moreton Bay, Queensland; 1: 102–110, 2: 233–257.)
- 1968 Banfield, E.J. (Queensland)
- x 1969 Robineau, D. (temporal region; 6.)
- Halicore brevirostris* De Vis, 1905 (= *Dugong dugon*)
- x *1905 De Vis, C.W. (n.sp.; ?subfossil, Papua New Guinea; 27–30, pl. 10.)
- 1975 Mahoney & Ride
- x 1982 Molnar, R.E. ("*H. brevirostre*"; ?Pleist., Papua New Guinea; 676, 679.)
- Halicore cetacea* Illiger, 1815 (= *Dugong dugon*)
- *1815 Illiger, C. (n.sp.)
- x 1848 Gistel, J. (in classification; 83.)
- 1876 Bšk., V.
- 1877 Heuglin, M.T.v.
- 1878 Linstow, O.v.
- x 1880 Hartmann, R. (external morphology; 156–159.)
- x 1899 Stiles & Hassall (nematode *Ascaris halicoris*; m149.)
- x 1934 Hatt, R.T. (m536.)
- x 1982 Kleinschmidt, A. (syn. of *Dugong dugon*; 382.)
- Halicore cuvierii* de Christol, 1832 (= *Metaxytherium medium*, in part; *Metaxytherium serresii*, in part; *Protosiren minima*, in part)
- *1832 Christol, J. de (n.sp.)
- x 1838 Meyer, H.v. (syn. of *Halianassa Studeri*; 667.)
- x 1840 Kaup, J.J. (synonymy; 674–675.)
- x 1840b Meyer, H.v. (syn. of *Halianassa*; 587.)
- x 1847b Gervais, F.L.P. ("*Halichore*"; m206, 208, 221.)
- x 1932a Simpson, G.G. (m475.)
- x 1942a Kaltenmark, J. (history of name, m102; m113.)
- x 1952 Hooijer, D.A. (syn. of *Metaxytherium medium*; 113.)
- x *1966 Kellogg, R. (m69; history of name, 70.)
- x 1971 Ginsburg & Janvier (syn. of *Metaxytherium medium*; m182.)
- x 1987 Domning & Thomas (syn. of *Metaxytherium medium*; 206–207, 210.)
- x 1987b Domning, D.P. (history of confusion with *Halianassa*; 123.)
- Halicore dugong* (Gmelin, 1788) Illiger, 1811 (= *Dugong dugon*)
- *1811 Illiger, C. (n.comb.)
- 1820 Ranzani, C.
- 1821a Raffles, T.S.
- 1821b Raffles, T.S.
- 1821c Raffles, T.S.
- 1829–
- 1844 Guérin-Ménéville, F.-E.
- 1830–
- 1835 Gray, J.E. (India)
- x 1834 Rüppell, E. (m113.)
- x 1835b Duvernoy, G.L. ("*H. Dugung*"; in classification; tab. 4.)
- x 1837 Burmeister, H. (in classification; 793.)
- 1838–
- 1845 Smith, A.
- 1838 Waterhouse, G.R.
- x 1838 Waterhouse, G.R. (Sumatra; 35.)
- x 1843 Backhouse, J. (Australia; 368–369.)
- x 1851 Barkow, H.C.L. (fetus; nerves & muscles; 119–122.)
- x 1851 Diesing, C.M. ("*H. Dugung*"; nematode *Ascaris Dugonis*, n.sp.; 191, 502.)
- 1851 Horsfield, T. ("*H. dugung*"; Siam; 139.)
- 1852–
- 1853 Kelaart, E.F. (Sri Lanka)
- 1853 Pucheran & Jacquinot
- x 1857 Jäger, G. (skull; 98–99, pl. 6.)
- x 1869a Bickmore, A.S. (Aru Islands; 244.)
- x 1869b Bickmore, A.S. (Aru Islands; 182.)
- 1871 Klunzinger, C.B. (Red Sea; hunting, econ. use)
- 1871b Van Beneden, P.J.
- x 1876 Southwell, T. (gen. acc.; 57, 75–76.)
- x 1878 Brown, A.E. (gen. acc.; 293–298.)
- 1878 Klunzinger, C.B. (Red Sea)
- x 1884 Fischer, P. (barnacle *Platylepas bissexlobata*; New Caledonia; 359.)
- x 1885a Woodward, H. (m468.)
- x 1887b Baur, G. (supernumerary phalanges; 840.)
- 1887 Collett, R. ("*H. dugung* var. *australis*"; Queensland)
- 1888 Ching, J.L. ("*H. dugong australis*")
- x 1889a Leboucq, H. (fetus; nails; 190–192.)
- 1889b Leboucq, H.
- 1889 Turner, W.
- x 1891 Flower & Lydekker (m221.)
- 1894 Turner, W.
- x 1894 Zaaier, T. ("*H. dujong*"; cranial sutures; 340.)
- x 1895 Phipson, H.M. (India; 489–490.)

- x 1895 Thurston, E. (India, Sri Lanka; 98-99.)
x 1895 Yerbury & Thomas (Red Sea; 555.)
x 1897 Etheridge et al. (?Pleist., Sydney, Australia; 170-174, 178-180, pls. 8-11.)
1900 Etheridge, R., Jr. (?Pleist., Papua New Guinea)
1901a Finsch, O. ("*H. dujong*"; Papua New Guinea, Australia; hunting)
x 1901 Roth, W.E. (Queensland; hunting; 30.)
x *1904 Freund, L. (manus; osteology; 363-397, pls. 14-15.)
x 1904a Lorenz, L.v. (m4.)
x 1905 Etheridge, R., Jr. (New South Wales; 17-19, pl. 4.)
1905 Freund, L. (sternum)
x 1905 Linstow, O.v. (India, Red Sea; nematode *Ascaris halicoris*; m258.)
x *1906 Annandale, N. (India, 238-243; Australia, 238, 242; Andaman Islands, 241.)
1906a Dexler & Freund
x 1907 Annandale, N. (pelvis, 79; manus, 79-80.)
x *1907 Pick, F.K. (lung anatomy & histology; 245-272.)
*1908a Freund, L. (skull; ontogeny)
x 1908b Freund, L. (bones & cartilages of nasal region; 254-256.)
x 1908 Hanitsch, R. ("*H. duyong*"; in capt., Singapore; 13.)
1911 Dexler & Eger
1911 Riha, A.
1912a Dexler, H.
x *1912b Dexler, H. (brain; 97-190, pls. 5-6.)
x *1914a Freund, L. (skeletal embryology; 353-386, pl. 16.)
1915 Matthes, E.
1921c Matthes, E.
1921d Matthes, E.
x 1923 Sowerby, A. de C. (m135.)
x 1924a Petit, G. (distr.; Madagascar, natural history; 124-127.)
x 1924c Petit, G. (kidney; 2198-2200.)
x 1926 Cheesman, R.E. (Red Sea; 348, m350.)
x 1926 Dahl, K. (Australia; m266.)
x 1926 Sanielevici, H. ("*H. dugung*"; diet, mastication; 251, 254-255.)
x 1928 Prater, S.H. (gen. acc.; 84-97, pls. 1-4.)
x 1929 Petit & Rochon-Duvigneaud (eye, sensory capacities; 129-138.)
x 1931 Sickenberg, O. (pachyostosis, osteosclerosis, 410-413, 415, 427; tooth replacement, 429; neoteny of brain & genitalia, 430-431.)
x *1932 Hirasaka, K. (Taiwan; 1-4, pl. 1.)
x 1932 Korschelt, E. (rib fractures; 450.)
1933 Bahrdr, H.J.
x 1934 Hirasaka, K. (distr. in Pacific; 4221-4222.)
x 1934 Thomson, D.F. (Cape York, Australia; hunting lore; 237-263, pls. 29-31.)
x 1935a Wislocki, G.B. (lungs; 385, 388, 392-394.)
x 1935b Wislocki, G.B. (placentation; 159, 164, 172-173, 176.)
x 1936 Lopes, A.P. (Mozambique; 28-36.)
x 1936 Sunter, G.H. (Northern Territory, Australia; harpooning; 47-48.)
1938 Asano, N.
x 1942a Kaltenmark, J. (m56.)
x 1951 Aragon, F. (Philippines; 265-268.)
x 1953 Brash, J.C. (tooth replacement; 464-466, 468-471.)
x 1954b Friant, M. (brain; 129-130, 134.)
x 1957 Gohar, H.A.F. (syn. of *Dugong dugon*; m37.)
x 1959 De Silva, J.A. (Sri Lanka; conservation; 173-174.)
x 1959a Engel, S. (lung anatomy & histology; 102-104, 106, 111-114.)
x *1959b Engel, S. (lung anatomy & histology; 90-100.)
x 1960 Jonklaas, R. (Sri Lanka; pop. acc.; 302-304.)
x 1960 Mani, S.B. (India; 216-217.)
x 1961 Silas, E.G. (India; 263-266.)
x 1961 Slijper, E.J. (closure of foramen ovale & ductus arteriosus; 536.)
1961 Thiemmedh, J. (Gulf of Thailand)
xv *1962 Engel, S. (lung anatomy & histology; 95-107.)
x 1963 Fenart, R. (skull; vestibular orientation; 92-98.)
x 1966 Kellogg, R. (m69.)
x 1967 Tsuyuki & Itoh (fatty acids; 1035-1037.)
x 1970 Cansdale, G.S. (probable identity of Biblical *tachash*; 138-139.)
x 1971 Fleischer, G. (ear; functional anatomy; 351-353, 355-359.)
x 1974 Itoh & Tsuyuki (fatty acids, comp. w/ TS; 310.)
x 1976 Fleischer, G. (anchoring of stapes; 305, 308-310.)
x 1982 Molnar, R.E. (?Pleist., Papua New Guinea; 680.)

Halicore hemprichii Ehrenberg, 1832 (= *Dugong dugon*)
*1828-
1899 Hemprich & Ehrenberg (n.sp.)
x 1888 Hart, H.C. (mentioned in Bible; 26-27, 220, 228.)
x 1923a Petit, G. (mating; m77.)
x 1924a Petit, G. (distr., comp. w/ other species; 124-125.)
x 1930 Aharoni, J. (dispersal to Palestine via Suez Canal; 330.)
x 1940 Pocock, R.I. (?syn. of *Dugong dugon*; 330.)
x 1942a Kaltenmark, J. (m56.)
x 1957 Gohar, H.A.F. (syn. of *Dugong dugon*; 4, 36.)

Halicore indica (Boddaert, 1785) Desmarest, 1822 (= *Dugong dugon*)
*1822 Desmarest, A.G. ("*H. indicus*"; n.comb.)
1830 Cheek, H.H.

- x 1886 Miklouho-Maclay, N. de ("*H. indicus*"; m193.)
 1896 Stossich, M. (nematode *Ascaris halicoris*)
- x 1899 Stiles & Hassall (nematode *Ascaris halicoris*; m151.)
- x 1922 Sonntag, C.F. ("*H. indicus*"; tongue; 646.)
- Halicore lottum* Ehrenberg, 1832 (= *Dugong dugon*)
- *1828–
 1899 Hemprich & Ehrenberg (n.sp.)
 1877 Heuglin, M.T.v.
- x 1940 Pocock, R.I. (?syn. of *Dugong dugon*; 330.)
- x 1957 Gohar, H.A.F. (syn. of *Dugong dugon*; 4, 36.)
- x 1982 Kleinschmidt, A. (syn. of *Dugong dugon*; 382.)
- Halicore malayana* Owen, 1875 (= *Dugong dugon*)
- x *1875b Owen, R. (n.sp.; comp. w/ *Prorastomus*; 560–561, 563, 565–566.)
- Halicore medius* [sic] (Desmarest, 1822) de Serres, 1838 (= *Metaxytherium serresii*, not *M. medium*)
- x *1838 Serres, M. de (n.comb.; Plioc., Montpellier, France; 286.)
- x 1847b Gervais, F.L.P. ("*Halichore*"; m205, 209, 221.)
- x 1987 Domning & Thomas (syn. of *Metaxytherium serresii*; 210.)
- Halicore minuta* Bronn, 1838 (Hippopotamidae)
- *1838 Bronn, H.G. (n.sp.)
- Halicore syren* Brookes, 1828 or 1830? (= *Dugong dugon*)
- *1828b? Brookes, J. (n.sp.)
- Halicore tabernaculi* Rüppell, 1834 (= *Dugong dugon*)
- x *1834 Rüppell, E. (n.sp.; Red Sea; 99–114, pl. 6.)
- x 1838 Owen, R. (heart, m35; skeleton, 41.)
- 1845 Reichenbach, H.G.L.
- 1871 Ule, O.
- x 1875a Owen, R. (m102.)
- x 1876 Southwell, T. (gen. acc.; 57, 76.)
- x 1881 Anon. (m738.)
- x 1885a Woodward, H. (m468.)
- x 1891 Flower & Lydekker (m221.)
- x 1904a Lorenz, L.v. (pelvis; 4–7, pl. 1.)
- x 1906 Abel, O. (dentition; m60.)
- x 1914a Freund, L. (pelvis; 372–373.)
- x 1916 Lucas, F.A. (pop. acc.; 315–316, 318.)
- x 1920 Schoff, W.H. (Biblical references to use of hide; 10–11, 51–53, 77, 140.)
- x 1924a Petit, G. (syn. of *H. hemprichi*; m124.)
- x 1925 Mertens, R. (type specimen listed; 30.)
- x 1929 Birulia, A.A. (pelvis, comp. w/ HG; m87–88.)
- x 1940 Pocock, R.I. (?syn. of *Dugong dugon*; 330.)
- x *1957 Gohar, H.A.F. (referred to *Dugong dugon* as subspecies; 37–39.)
- 1963 Bertram, G.C.L. (pop. acc.)
- x 1969 Robineau, D. (temporal region; 6.)
- x 1982 Domning, Rice et al. (syn. of *Dugong dugon*; m305.)
- x 1982 Kleinschmidt, A. (syn. of *Dugong dugon*; 382.)
- Halicorea* Brandt, 1846 (tribe or family; included *Manatus* and *Halicore* but not *Rytina*)
- *1846c Brandt, J.F.
- x 1848 Gistel, J. (in classification; 83.)
- Halicoreae* Brandt, 1833 (tribe; included *Manatus* and *Halicore* but not *Rytina*)
- *1833 Brandt, J.F. (new tribe)
- Halicorida* Brandt, 1868 (family; = *Dugongidae*)
- *1868a Brandt, J.F. (n.fam.)
- x 1872a Gill, T. (divided into 3 families; 13–14.)
- Halicoridae* Gray, 1825 (family; = *Dugongidae*)
- x *1825 Gray, J.E. (n.fam.; in classification; 341, 344.)
- x 1872a Gill, T. (in classification; 14, 91–92.)
- x 1872b Gill, T. (m301.)
- x 1873 Gill, T. (phylogeny; 272–273.)
- x 1884 Flower, W.H. (in classification; m184.)
- x 1889b Dollo, L. (m421.)
- x 1891 Flower & Lydekker (in classification, m220; m223.)
- x 1895 Palmer, T.S. (syn. of *Dugongidae*; 450.)
- x 1904 Case, E.C. (teeth; m57.)
- x 1932c Simpson, G.G. (syn. of *Dugongidae*; 281.)
- x 1945 Simpson, G.G. (syn. of *Dugongidae*; 135.)
- Halicorinae* Abel, 1913 (subfamily; = *Dugonginae*)
- *1913 Abel, O. (new subfamily)
- Halicoroidea* Gill, 1872 (superfamily; = *Dugongidae*)
- x *1872a Gill, T. (new superfamily; in classification; 13, 91–92.)
- x 1872b Gill, T. (m301.)
- x 1873 Gill, T. (phylogeny; 272–273.)
- Haligyna* Billberg, 1827 (= *Hydrodamalis*)
- x *1827 Billberg, G.J. (n.gen.; in classification; tabs. A & B, 33.)
- x 1828 Billberg, G.J. (in classification; tabs. A & B, 33.)
- x 1925 ICZN (nomenclature; 38.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis*; 75.)
- Haligyna borealis* (Gmelin, 1788) Billberg, 1827 (= *Hydrodamalis gigas*)
- x *1827 Billberg, G.J. (n.comb.; 33.)

- x 1828 Billberg, G.J. (in classification; 33.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 93.)
- Halipaedisca* Gistel, 1848 (= *Trichechus*)
- x *1848 Gistel, J. (proposed as replacement name for *Manatus*; 83.)
- 1850 Gistel & Bromme
- x 1925 ICZN (syn. of *Trichechus*; 38.)
- x 1934 Hatt, R.T. (syn. of *Trichechus*; 534.)
- x 1961 Cabrera, A. ("*Halipaediscus*"; syn. of *Trichechus*; 309.)
- x 1978c Domning, D.P. (syn. of *Trichechus*; m578.)
- Halipaedisca americana* (Link, 1795) Gistel, 1848 (= *Trichechus manatus*)
- x *1848 Gistel, J. ("*H. americanus*"; n.comb.; 83.)
- Halitherida Carus, 1868 (family; = Halitheriinae)
- *1868 Carus, J.V. (n.fam.)
- x 1945 Simpson, G.G. (syn. of Dugongidae; 135.)
- Halitheriidae Gill, 1872 (family; = Halitheriinae)
- x *1872a Gill, T. (n.fam.; in classification; 13, 91-92.)
- x 1872b Gill, T. (m301.)
- x 1873 Gill, T. (phylogeny; 273.)
- x 1889b Dollo, L. (m421.)
- x 1891 Flower & Lydekker (m222.)
- x 1941 Kretzoi, M. (in classification; 154.)
- x 1945 Simpson, G.G. (syn. of Dugongidae; 135.)
- Halitheriinae (Carus, 1868) Abel, 1913 (subfamily)
- *1913 Abel, O. (new rank)
- x 1945 Simpson, G.G. (in classification; 135.)
- 1960 Kaiser, H.E.
- x 1978b Domning, D.P. (redefined; 3-5.)
- x 1986 Domning & Ray (Halitheriinae indet.; Early Mioc., Oregon; 263-276.)
- 1992 Kohno & Takaizumi (Halitheriinae indet.; Late Mioc., Japan)
- Halitherium* Kaup, 1838
- x *1838a Kaup, J.J. ("*Halytherium*"; n.gen.; 319, pl. 2.)
- x 1838b Kaup, J.J. (comp. w/ DD; m536.)
- x 1839b Meyer, H.v. ("*Halytherium*"; syn. of *Halianassa*; 77.)
- x 1840 Kaup, J.J. (synonymy, 674-675; diagnosis, 675.)
- x 1840b Meyer, H.v. (syn. of *Halianassa*; 587.)
- x *1847b Gervais, F.L.P. (review & diagnosis; 203-221.)
- 1855 Kaup, J.J.
- 1858b Krauss, C.F.F.
- x 1861 Van Beneden, P.J. (Germany, Austria; 481.)
- x 1864 Dana, J.D. (m183.)
- x 1866 Adams, A.L. (Mioc., Malta; 595-596.)
- x 1866 Lartet, E. (comp. w/ *Rytiodus*, etc.; 678-680, 682-683, 685.)
- x 1867 Claudius, M. (ear region, comp. w/ HG; 6, 9-10.)
- 1867 Peters, K.F.
- 1867 Stache, G.
- x 1868 Falconer, H. (Malta; 304.)
- x 1870 Delfortrie, E. (Early Mioc., France; bones scarred by fish teeth; 261.)
- x 1871 Farge, E. (Middle Mioc., France; bone scarred by sharks; 265-268, pl. 2.)
- x 1872 Farge, E. (Middle Mioc., France; bone scarred by sharks; 412-416.)
- x 1872a Gill, T. (in classification; 92.)
- x 1872a Murie, J. (anatomy, comp. w/ TMM; 135, 154, 167, 190-191.)
- x 1873 Gill, T. (affinities; 271-272.)
- x 1874 Flower, W.H. (comp. w/ other sirs.; 2, 5-7.)
- x 1875a Owen, R. (brain, 102; Malta, 104, 105.)
- x 1875b Owen, R. (comp. w/ *Prorastomus*; 566-567.)
- x 1875 Wilder, B.G. (phyletic position; m111.)
- 1875a Zigno, A. de (Mioc., Isthmus of Suez)
- x 1878 Brown, A.E. (m292.)
- x 1878a Zigno, A. de (Italy, 67-70; comp. w/ *Felsinotherium*, 69.)
- x 1880 Delfortrie, E. (comp. w/ *Rytiodus*; 131, 135-139, 141-142.)
- x 1883a Cope, E.D. (South Carolina; 54.)
- x 1883b Cope, E.D. (comp. w/ *Dioplotherium*; 309.)
- 1885 Gaudry, A.
- x 1885 Ryder, J.A. (hind limbs; m515, 519.)
- x 1885a Woodward, H. (femur, m459; teeth, m464, m472; comp. w/ other sirs., 465.)
- x 1886b Hartlaub, C. (comp. w/ *Manatherium*; 370, 374-376.)
- x *1887 Flot, L. (ancestral to *Trichechus*, 136-138; "new species," 138, pl. 1.)
- 1887 Gaudry, A.
- x 1889b Dollo, L. (comp. w/ *Miosiren*; 416-419, 421.)
- x 1891 Flower & Lydekker (anatomy; 213, 222-224.)
- 1892 Viguier, M.-G.
- 1901 Kornhuber, A.
- x 1902b Osborn, H.F. (m715.)
- 1902 Schafarzick, F. (Hungary)
- 1903 Van Oort, E.D.
- *1904a Abel, O.
- x 1904 Freund, L. (carpus, comp. w/ DD, etc.; m394.)
- x 1904a Lorenz, L.v. (pelvis; m1, m6-7.)
- 1905 Van Oort, E.D.
- x 1906 Abel, O. (dentition; 51-52, 59-60.)
- x 1906 Almera, D.J. (Middle Eoc., Spain; 379.)
- 1911 Lefevre
- x 1914 Depéret, C. (m1858-1859.)
- x 1914a Freund, L. (fusion of cervical vertebrae; m360.)
- x 1917 Schréter, Z. ([actually *Metaxytherium*]; Hungary; m176.)

- 1922 Dal Piaz, G.
- x 1923a Allen, G.M. (vertebral epiphyses; m236.)
- x 1924 Andrews, C.W. (dentition; m306.)
- x 1924 Birulia, A.A. (pelvis, comp. w/ HG; m88-89.)
- x 1924 Hay, O.P. (teeth; m4.)
- x *1927 Collignon & Cottreau (Mioc., Madagascar; 138, 164-165, 169.)
- x 1928 Prater, S.H. (m98.)
- 1934 Nopcsa & Heidsieck
- x 1935 Dartevelle, E. ("Halitherium sp.?"; Mioc., Congo; 717-718.)
- 1935 Fekete, Z. (Hungary)
- 1937 Dal Piaz, G.
- x 1941c Heuvelmans, B. (dentition, comp. w/ DD; 5-6, 14.)
- x 1941 Kretzoi, M. (Hungary, m146; comp. w/ *Sirenavus*, etc., 148-149, 151, 154, pl. 6.)
- x 1942a Kaltenmark, J. (comp. w/ *Trichechus*; m59.)
- x 1942b Kaltenmark, J. (history of name, 103-104; m106; comp. w/ *Metaxytherium* sp., 108.)
- x 1943 Kaltenmark, J. (phylogeny; 18-23.)
- x 1943 Kellogg, R. (Caribbean; m299.)
- x 1945 Simpson, G.G. (in classification; 135, 251.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 438-441.)
- x 1951 Reinhart, R.H. (m207, 209.)
- x 1952 Thenius, E. (senior syn. of *Halianassa*; 110-111.)
- x 1953 Maldonado-Koerdell, M. ("cf. *Halitherium*"; Olig., Mexico; 146-148.)
- 1954 Astre, G.
- x 1956 Bataller, J.R. (Eoc. & Mioc., Spain; 24-25.)
- 1959 Spillmann, F.
- x 1959 Telles-Antunes, M.C.F. (Early Mioc., Lisbon; 129-137, pl. 1.)
- 1963 Patte, E.
- 1964 Rey, R. (France)
- x 1968 Olsen, S.J. (Mioc., northern Florida; 129, 133-134.)
- x 1970 Chavanon & Saubade (Olig., France; 261-262.)
- x 1970 Fuchs, H. ("?Halitherium sp."; Eoc., Romania; 1185-1191.)
- x 1971 Ginsburg & Janvier (comp. w/ *Metaxytherium medium*; 184, 186, 188.)
- x 1973 Crusafont-Pairó, M. (Spain; occurrences & bibliography; 97-98.)
- x 1973 Spillmann, F. ("?Halitherium sp." of Fuchs [1970] comp. w/ other *Halitherium* species; 206-207.)
- x 1974 Anglada et al. (Early Mioc., France; 1-2.)
- x 1974 Domning, D.P. (Mississippi; m8.)
- x 1974 Patte, E. (corrects erroneous record from Poitou, France; 24.)
- x 1977 Kordos, L. (comp. w/ *Paralitherium*; 366-367.)
- x 1977 Savage & Tewari (Madagascar specimen considered Dugongidae indet.; 217.)
- x 1978c Domning, D.P. (phyletic position, occurrence in Africa; 575-579.)
- 1978 Schäfer, W.
- 1979 Kattinger, E.
- x 1980 Inuzuka et al. (m641.)
- 1980 Sahni & Mitra
- x 1980 Sanders, A.E. (Olig., South Carolina; 612.)
- x 1982 Domning, Morgan & Ray (supposed Eoc. records; 5, 39.)
- x 1982 Kleinschmidt, A. (body proportions, 375; distr., 378-380; pelvis, 392.)
- x 1983 Bizzotto, B. (comp. w/ *Prototherium*, etc.; 100, 106, 111.)
- x 1985a Kordos, L. (Hungary; zoogeography; 314.)
- x 1985 Muizon & Domning (m209.)
- 1986 Rothausen, K.
- x *1987b Domning, D.P. (suppression of spelling *Halytherium* proposed; *Pugmeodon schinzii* proposed as type species; 122-125.)
- x *1989 ICZN (spelling *Halytherium* suppressed; type species designated; name placed on Official List; 83-84.)
- Halitherium abeli* Spillmann, 1959 (= *Halitherium christolii*)
- *1959 Spillmann, F. (n.sp.; Late Olig., Austria)
- x 1973 Spillmann, F. (stratigraphic & phyletic position; 205.)
- x 1977 Kordos, L. (comp. w/ *Paralitherium*; 367.)
- x 1980 Kordos, L. (comp. w/ Hungarian *Eotheroides*; 389, 397.)
- x 1987 Domning & Thomas (syn. of *H. christolii*; 207, 225, 227.)
- x 1988 Domning, D.P. (comp. w/ *Metaxytherium floridanum*; 408.)
- Halitherium aegyptiacum* (Owen, 1875) von Zittel, 1893 (= *Eotheroides aegyptiacum*)
- *1893 Zittel, K.A.v. (n.comb.)
- x 1895 Depéret, C. ("*H. (Eotherium) Aegyptiacum*"; m410.)
- Halitherium alleni* Simpson, 1932
- x *1932a Simpson, G.G. (n.sp.; 445.)
- x *1966 Kellogg, R. (referred to *Felsinotherium*; 91-92.)
- x 1989c Domning, D.P. (history of name; 416.)
- Halitherium angustifrons* de Zigno, 1875 (= *Prototherium veronense*)
- *1875a Zigno, A. de (n.sp.)
- x 1878a Zigno, A. de (review; 68, 70.)
- x 1885a Woodward, H. (m470.)
- x 1892 Lydekker, R. (m78.)
- x 1943 Kaltenmark, J. (phylogeny; 17-19, 21.)

- x 1980 Kordos, L. (nature of type material; 387.)
x 1983 Bizzotto, B. (comp. w/ *Prototherium*; 100, 108.)
- Halitherium antillense* Matthew, 1916
x *1916a Matthew, W.D. (n.sp.; Olig., Puerto Rico; 23–29.)
1916b Matthew, W.D.
v 1916 Reeds, C.A.
x 1923a Allen, G.M. (m232.)
x 1932a Simpson, G.G. (m422, 496.)
x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 67.)
x 1966 Kellogg, R. (review; 65–66.)
x 1978b Domning, D.P. (comp. w/ *Dusisiren*; 73–74.)
x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 272.)
x 1990 MacPhee & Wyss (review; 21, 31–32.)
- Halitherium antiquum* (Leidy, 1856) Allen, 1926 (nomen dubium; = "*Manatus antiquus*")
x *1926 Allen, G.M. (n.comb.; 455–459, pls. 2–3.)
x 1932a Simpson, G.G. (m421, 444.)
x 1966 Kellogg, R. (history of name; 91.)
x 1988 Domning, D.P. (considered nomen dubium; 396.)
x 1989c Domning, D.P. (considered nomen dubium; 416.)
- Halitherium beaumontii* (de Christol in de Blainville, 1844) Gervais, 1852 (nomen dubium)
*1852 Gervais, F.L.P. (n.comb.)
x 1885a Woodward, H. (m470.)
- Halitherium bellunense* de Zigno, 1875
*1875a Zigno, A. de (n.sp.; Italy)
x 1877 Lawley, R. (m342.)
x 1878a Zigno, A. de (review; 68, 70.)
x 1885a Woodward, H. (m470.)
x 1892 Lydekker, R. (teeth; 78.)
x 1895 Depéret, C. (m410.)
*1905 Abel, O.
x 1927 Collignon & Cottreau (m165.)
x 1932a Simpson, G.G. (comp. w/ other sirs.; 474, 476–478.)
x 1937 Venzo, S. (considered Chattian [Olig.] in age; 7, 13, 196.)
x 1965 Kilmer, F.H. (m69.)
x 1987 Domning & Thomas (probably not *Halitherium*; 207.)
x 1989c Domning, D.P. (?related to rytiodontines; 425–426.)
- Halitherium brocchii* (de Blainville, 1844) Gervais, 1847 (= *Metaxytherium subapenninum*)
x *1847b Gervais, F.L.P. (n.comb.; 221.)
- Halitherium bronni* Krauss, 1858 (= *Halitherium schinzii*)
*1858b Krauss, C.F.F. (n.sp.)
- x 1862 Bronn, H.G. (m418.)
x 1970 Fuchs, H. (comp. w/ Romanian ?*Halitherium*; 1186–1187.)
- Halitherium canhami* Flower, 1874 (= *Miosiren canhami*)
x *1874 Flower, W.H. (n.sp.; Mioc., England; 1–7, pl. 1.)
x 1875a Owen, R. (m104, 105.)
x 1885a Woodward, H. (m470.)
1891 Newton, E.T.
x 1927 Hopwood, A.T. (m21.)
*1934b Sickenberg, O.
- Halitherium capgrandi* (Lartet, 1866) Cope, 1883 (= *Rytiodus capgrandi*)
x *1883a Cope, E.D. (n.comb.; comp. w/ *Dioplotherium*; 52.)
- Halitherium chouqueti* Gaudry, 1884 (= *Halitherium schinzii*)
x *1884 Gaudry, A. (n.sp.; 373–375, pl. 17.)
x 1887 Flot, L. (review; 136.)
x 1895 Depéret, C. (m410.)
- Halitherium christolii* Fitzinger, 1842
*1842 Fitzinger, L.J. (n.sp.; Late Olig., Austria)
x 1843 Meyer, H.v. (syn. of *Halianassa*; 704.)
x 1847b Gervais, F.L.P. (m209.)
x 1867 Peters, K.F. (synonymy; 310.)
*1904a Abel, O.
x 1916a Matthew, W.D. (comp. w/ ?*H. antillense*; m26.)
1916b Matthew, W.D.
x 1926 Allen, G.M. (comp. w/ *H. antiquum*; m457.)
x 1932a Simpson, G.G. (m474, 478.)
x 1943 Kaltenmark, J. (phylogeny; 19–21.)
x 1951 Kretzoi, M. (m439, m441.)
x 1951 Reinhart, R.H. (m207.)
*1959 Spillmann, F.
x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 67–68.)
x 1966 Kellogg, R. (review; 69.)
x 1970 Fuchs, H. (comp. w/ Romanian ?*Halitherium*; 1187.)
x 1973 Fuchs, H. (comp. w/ Romanian sir.; 73, 76–77.)
x 1973 Spillmann, F. (comp. w/ *H. pergense*; 200, 202–207, 209, pl. 40.)
x 1977 Kordos, L. (comp. w/ *Paralitherium*; 367.)
x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 9, 12, 73, 118.)
x 1978c Domning, D.P. (phyletic position; 576.)
x 1980 Kordos, L. (comp. w/ Hungarian *Eotheroides*; 389, 397.)
x 1982 Domning, Morgan & Ray (comp. w/ Eoc. sirs.; 43.)
x 1985a Domning, D.P. (biochronological utility; 183.)
x 1985 Muizon & Domning (phyletic position; 211.)

- x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 272.)
- x 1987 Domning & Thomas (considered ancestral to *Metaxytherium*; 207–208, 220–227.)
- x 1988 Domning, D.P. (?ancestor of *Metaxytherium*; 417–418.)
- Halitherium cordieri* (de Christol in de Blainville, 1844) Peters, 1867 (= *Metaxytherium medium*)
- x *1867 Peters, K.F. (n.comb.; skeleton; 309–314, pl. 7.)
1899 Kornhuber, A.
- x 1952 Thenius, E. (syn. of *Thalattosiren petersi*; 109.)
- Halitherium curvidens* de Zigno, 1875 (= *Prototherium veronense*)
- *1875a Zigno, A. de (n.sp.; Late Eoc., Italy)
- x 1878a Zigno, A. de (review; 68, 70.)
- x 1885a Woodward, H. (m470.)
- x 1892 Lydekker, R. (m78.)
- x 1980 Kordos, L. (syn. of *Prototherium veronense*; m387–389, m395–397.)
- Halitherium cuvieri* (de Christol, 1832) Kaup, 1840 (= *Metaxytherium medium*)
- x *1840 Kaup, J.J. (n.comb.; 675.)
- x 1847b Gervais, F.L.P. (m221.)
- x 1867 Peters, K.F. (syn. of *H. Cordieri*; m310, m314.)
- x 1885a Woodward, H. (m470.)
1906 Couffon, O.
- x 1971 Ginsburg & Janvier (syn. of *Metaxytherium medium*; m182.)
- x 1976 Kordos, L. (m282.)
- Halitherium dubium* (Cuvier, 1824) Kaup, 1838 (= *Halitherium schinzii*, not *Protosiren minima*; used in reference to misidentified material)
- x *1838a Kaup, J.J. ("*Halytherium dubium*," n.gen.n.sp.; Olig., Germany; 319, pl. 2.)
- x 1847b Gervais, F.L.P. (m208.)
- x 1866 Lartet, E. (occurrence; m684.)
- x 1885a Woodward, H. (m470.)
- x 1895 Depéret, C. (m410.)
- x 1966 Kellogg, R. (history of name; 70.)
- x 1987b Domning, D.P. (history of name; 122–125.)
- Halitherium fossile* (Holl, 1829) Gervais, 1847 (= *Metaxytherium medium*)
- x *1847b Gervais, F.L.P. ("*H. fossilis*," n.comb.; 221.)
- x 1884 Gaudry, A. (comp. w/ *H. Chouqueti*; 375.)
- x 1885a Woodward, H. (m470.)
- x 1887 Flot, L. (review; 137–138.)
- x 1891 Flower & Lydekker (teeth illustrated; 223.)
1909 Mayet & Lecointre
- x 1919 Gómez Lluca, F. (syn. of *Metaxytherium Cuvieri*; 54.)
- 1926 Cottreau, J.
- x 1942b Kaltenmark, J. (m113.)
- x 1956 Bataller, J.R. (Spain; skull; 24–25, pls. 6–8.)
- x 1971 Ginsburg & Janvier (syn. of *Metaxytherium medium*; 182–183.)
- x 1977 Hooijer, D.A. (m3.)
- Halitherium guettardi* (de Blainville, 1844) Gervais, 1847 (= *Halitherium schinzii*)
- x *1847b Gervais, F.L.P. (n.comb.; 221.)
- x 1866 Lartet, E. (occurrence; m684.)
- x 1884 Gaudry, A. (m373.)
- x 1885a Woodward, H. (m470.)
- x 1895 Depéret, C. (syn. of *H. schinzi*; m410.)
1920 Depéret & Roman (syn. of *H. schinzi*; m37.)
- x 1942b Kaltenmark, J. (m101, m113.)
- x 1943 Kaltenmark, J. (phylogeny; 21–22.)
- Halitherium kaupi* Krauss, 1858 (= *Halitherium schinzii*)
- *1858b Krauss, C.F.F. (n.sp.)
- Halitherium minor* Cope, 1883 (= *Metaxytherium serresii*)
- x *1883a Cope, E.D. (n.comb.; comp. w/ *Dioplotherium*; 52.)
- Halitherium olseni* Reinhart, 1976 (= *Crenatosiren olseni*)
- x 1971 Reinhart, R.H. ("*H. olsenensis*," nomen nudum; m8.)
- *1976 Reinhart, R.H. (n.sp.; Mioc., Florida)
- x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 272.)
- x 1987 Bajpai et al. (comp. w/ *Metaxytherium kachchhense*; 22–23.)
- x 1989b Domning, D.P. (Early Mioc., Suwannee R., Florida; 54–56, 59.)
- x 1989c Domning, D.P. (comp. w/ *Dioplotherium manigaulti*; 421, 424–426.)
- x 1989d Domning, D.P. (m435.)
- x 1989 Morgan, G.S. (Early Mioc., Suwannee R., Florida; 27, 30, 32, 39.)
- x 1990b Domning, D.P. (comp. w/ *Corystosiren varguezi*; 369.)
- x 1990 MacPhee & Wyss (comp. w/ *Metaxytherium* cf. *calvertense*; 25.)
- x *1991b Domning, D.P. (made the basis of *Crenatosiren*, n.gen.; 398.)
- x 1991 Toledo & Domning (comp. w/ *Dioplotherium* cf. *allisoni*, 124; comp. w/ cf. *Rytiodus*, 133.)
- x 1992 Hulbert, R.C., Jr. (syn. of *Crenatosiren olseni*; 33.)
- Halitherium pergense* (Toula, 1899) Spillmann, 1959 (= *Halitherium christolii*)
- *1959 Spillmann, F. (n.comb.)

- x 1970 Fuchs, H. (comp. w/ Romanian ?*Halitherium*; 1185–1186.)
- x *1973 Spillmann, F. (stratigraphic position & comparisons with other species; 197–209.)
- x 1987 Domning & Thomas (syn. of *H. christolii*; 207.)
- Halitherium raulinii* (Gervais, 1849) Depéret, 1895 (= *Halitherium schinzii*)
- x *1895 Depéret, C. (“*H. (Trachytherium) Raulini*”; n.comb.; m410.)
- Halitherium schinzii* (Kaup, 1838) Kaup, 1855
- *1855 Kaup, J.J. (n.comb.)
- x 1862 Bronn, H.G. (vertebrae, ribs, humeri, tusks; 416–418.)
- *1862b Krauss, C.F.F.
- x 1866 Lartet, E. (occurrence; m684.)
- x 1867 Peters, K.F. (comp. w/ *H. cordieri*; 309–314.)
- x 1874 Flower, W.H. (m3, 5.)
- x *1879 Adams, A.L. (“*H. Schinzi*?”; Malta; 525–527, pl. 25.)
- *1882 Lepsius, G.R.
- x 1884 Gaudry, A. (comp. w/ *H. Chouqueti*; 373–375, pl. 17.)
- 1885a Flot, L.
- 1885b Flot, L. (Montmorency, France)
- x 1885a Woodward, H. (skeleton, 466; teeth, 467; m470.)
- x 1887 Flot, L. (review; 136.)
- x 1889b Dollo, L. (comp. w/ *Miosiren*; 417.)
- x 1889 Lefèvre, T. (Olig., Belgium; 198–200.)
- x 1892 Lydekker, R. (comp. w/ *H. bellunense* & *H. veronense*; 78, 81–83.)
- x 1893 Howes & Harrison (vertebral epiphyses; m790.)
- x 1895 Depéret, C. (m410; comp. w/ *Metaxytherium krahuletzi*, 411.)
- x 1902 Andrews, C.W. (comp. w/ *Eosiren libyca*; 295.)
- x 1906 Abel, O. (dentition; 60.)
- 1911 Schmidtgen, O.
- x 1912 Issel, A. (comp. w/ *Felsinotherium subapenninum*; 121.)
- 1912 Schmidtgen, O.
- x 1914 Depéret, C. (comp. w/ *Felsinotherium Serresi*; 1858–1859.)
- x 1916a Matthew, W.D. (comp. w/ *H. antillense*; 24–26.)
- x 1923a Allen, G.M. (m233.)
- x 1925 Abel, O. (most skeletons said to be composite; 48.)
- x 1925 Kellogg, R. (comp. w/ *Metaxytherium jordani*; 58, 67.)
- x 1926 Allen, G.M. (comp. w/ *H. antiquum*; 456.)
- x 1926 Sanielevici, H. (diet & tooth morphology; 251–252, 254.)
- x 1927 Collignon & Cottreau (comp. w/ Madagascar *Halitherium*; 164–165.)
- x 1927 Hopwood, A.T. (illustration of skeleton; 20.)
- x 1928b Petit, G. (fusion of cervical vertebrae 2 & 3; m431.)
- 1929a Dette, K.
- x 1931 Sickenberg, O. (pachyostosis, osteosclerosis, 409–415, 427; tooth replacement, 429.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 424, 431–436, 443–444, 454, 456, 460, 464, 472, 474, 476–478, 480, 495, 499.)
- x 1932b Simpson, G.G. (critique of restorations; 7.)
- 1935 Haupt, O. (Olig., Mainz Basin, Germany)
- 1936 Gillet & Théobald (Olig., France)
- 1936 Neumann, D. (manus)
- x 1941 Kretzoi, M. (m147, m151.)
- x 1942b Kaltenmark, J. (m103, m113.)
- x 1943 Kaltenmark, J. (phylogeny; 19, 21.)
- x 1946 Slijper, E.J. (spinal column; tab. 5.)
- 1947 Cailleux & Feugueur
- x 1951 Kretzoi, M. (m439, m441.)
- 1962 Barthel, K.W.
- x 1962 Schäfer, W. (manner of decay of carcass; 53–56.)
- x *1962 Wilhelm, W. (Olig., Germany; skeleton; 51–53.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 67–68.)
- 1966 Barthel, K.W.
- x 1966 Kellogg, R. (?Mississippi, 66; Europe, 68–69; comp. w/ *Metaxytherium calvertense*, 76, 78, 81, 83–85, 88.)
- x 1967 Siegfried, P. (femur, comp. w/ *Eotheroides libyca*; 165, 169–171.)
- x 1970 Fuchs, H. (comp. w/ Romanian ?*Halitherium*; 1185–1188.)
- x 1972 Sittler, C. (Olig., Alsace, France; vertebrae; 113.)
- x 1973 Crusafont-Pairó, M. (Spain; occurrences & bibliography; 97.)
- x 1973 Fuchs, H. (comp. w/ Romanian sir.; 72–73, 75–77.)
- x 1973 Spillmann, F. (comp. w/ *H. pergense*; 198, 200, 202–204, 206–207, 209.)
- x 1974 Fondi & Pacini (comp. w/ *Metaxytherium forestii*; 43.)
- x 1977 Hooijer, D.A. (comp. w/ *Metaxytherium cf. medium*; 2–4, 6, 12.)
- x 1977 Kordos, L. (comp. w/ *Paralitherium*; 367.)
- x 1977 Schäfer, W. (display, Senckenberg Museum, Frankfurt; 196–197.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 3, 9, 12, 16, 73–74.)
- x *1980 Tobien, H. (Olig., Mainz Basin, Germany; occurrences summarized; 207–209.)
- 1982 Bahlo & Tobien (Olig., Mainz Basin, Germany)
- x 1982b Domning, D.P. (molarization of premolars; m608.)
- x 1982 Domning, Morgan & Ray (comp. w/ Eoc. sirs.; 30, 39.)
- *1982 Fischer & Krumbiegel
- x 1982 Fischer, K. (Middle Olig., Germany; 151–153.)
- 1983 Müller, A.

- x 1985a Domning, D.P. (biochronological utility; 183.)
- x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 272–273.)
- x 1987 Domning & Thomas (?ancestral to *Metaxytherium*; 207, 220–227.)
- x *1987b Domning, D.P. (history of name; 122–125.)
- *1987 Pilleri, G.
- x 1989c Domning, D.P. (comp. w/ rytiodontines; 423, 425.)

Halitherium schinzii forma *delheidi* (Hartlaub, 1886)
Sickenberg, 1934

- *1934b Sickenberg, O. (new rank)
- x 1942b Kaltenmark, J. (comp. w/ *Metaxytherium* sp.; 107–108.)
- x 1970 Fuchs, H. (comp. w/ Romanian ?*Halitherium*; 1185–1188.)
- x 1973 Fuchs, H. (comp. w/ Romanian sir.; 72.)
- x 1982 Fischer, K. (comp. w/ other *H. schinzii*; 151–152.)

Halitherium schinzii lareolense Pilleri, 1987

- *1987 Pilleri, G. (“*H. schinzi lareolensis*”; new subspecies)

Halitherium schinzii forma *typica* Sickenberg, 1934

- *1934b Sickenberg, O. (new subspecies)

Halitherium serresii Gervais, 1847

- x *1847b Gervais, F.L.P. (n.sp.; Plioc., Montpellier, France, 210–217, 221; comp. w/ *Toxodon*, 218–219.)
- *1859 Gervais, F.L.P.
- x 1874 Flower, W.H. (m5.)
- x 1875a Owen, R. (m104.)
- x 1878a Zigno, A. de (m67.)
- x 1883a Cope, E.D. (comp. w/ *Diplottherium*; 52.)
- x 1885a Woodward, H. (m470.)
- x 1914 Depéret, C. (syn. of *Felsinotherium Serresi*; 1858.)
- x 1966 Kellogg, R. (history of name; 70.)
- x 1987 Domning & Thomas (syn. of *Metaxytherium serresii*; 207, 210.)

Halitherium studeri (von Meyer, 1837) Kaup, 1855 (= *Metaxytherium krahuletzii*)

- *1855 Kaup, J.J. (n.comb.)

Halitherium subapenninum (Bruno, 1839) Kaup, 1855 (= *Metaxytherium subapenninum*)

- *1855 Kaup, J.J. (n.comb.)
- x 1867 Peters, K.F. (comp. w/ *H. Cordieri*; 310.)

Halitherium uyterhoeveni Abel, 1925 (= *Halitherium schinzii*)

- x *1925 Abel, O. (n.sp.; nomen nudum; Olig., Belgium; 39.)
- 1934b Sickenberg, O. (206)

Halitherium veronense de Zigno, 1875 (= *Prototherium veronense*)

- *1875a Zigno, A. de (n.sp.; Late Eoc., Italy)
- x 1877 Lawley, R. (m342.)
- x 1878a Zigno, A. de (review; 68, 70.)
- x *1880a Zigno, A. de (additional material; 291–298, pl. 4.)
- 1882 Zigno, A. de
- x 1885a Woodward, H. (m470.)
- x 1887 Flot, L. (review; 136.)
- x 1892 Lydekker, R. (referred to *Prorastomus*; 78, 81–83.)
- x 1895 Depéret, C. (“*H. (Prototherium) Veronense*”; m410.)
- x 1902 Yoshiwara & Iwasaki (“*H. varonense*”; m12.)
- x 1906 Abel, O. (dentition; 52.)
- x 1932a Simpson, G.G. (m473.)
- x 1942 Heuvelmans, B. (dentition & synonymy; 1.)

Halobioidea Ameghino, 1889 (= Sirenia)

- *1889 Ameghino, F. (new taxon, rank not specified)

Halysiren Kretzoi, 1941 (= *Metaxytherium*)

- x *1941 Kretzoi, M. (proposed as replacement name for *Cheirotherium*, 153; in classification, 153–155, pl. 6.)
- x 1978c Domning, D.P. (syn. of *Metaxytherium*; m577.)
- x 1987 Domning & Thomas (syn. of *Metaxytherium*; 208–209.)

Halytherium Kaup, 1838 (= *Halitherium*)

- x *1838a Kaup, J.J. (n.gen.; Olig., Germany; 319, pl. 2.)
- x *1987b Domning, D.P. (proposed suppression in favor of *Halitherium*; 122–125.)
- x *1989 ICZN (correct spelling deemed to be *Halitherium*; 83–84.)

Haplosiren Kretzoi, 1951 (= *Metaxytherium*)

- x *1951 Kretzoi, M. (n.gen.; Mioc., Hungary; 438–441.)
- x 1952 Thenius, E. (considered nomen nudum; 112.)
- x 1985a Kordos, L. (Hungary; zoogeography; 314.)
- 1985c Kordos, L.

Haplosiren leganyii Kretzoi, 1951 (= *Metaxytherium medium?*)

- x *1951 Kretzoi, M. (n.gen.n.sp.; Mioc., Hungary; 438–441.)
- 1982c Domning, D.P. (comp. w/ *Metaxytherium serresi*; 29–30.)
- 1984 Kordos & Solt
- 1985b Kordos, L.
- x 1987 Domning & Thomas (?syn. of *Metaxytherium medium*; 208, 215, 229.)

Hematology: SEE Biochemistry; Circulatory System

- Hemicaulodon* Cope, 1869 (Pinnipedia; = *Odobenus*)
- *1869 Cope, E.D. (n.gen.)
 - x 1872a Gill, T. (in classification; 92.)
 - x 1883a Cope, E.D. (comp. w/ *Dioplotherium*; 52.)
 - x 1941 Kretzoi, M. (m150.)
- Hemicaulodon effodiens* Cope, 1869 (Pinnipedia; = *Odobenus rosmarus*)
- *1869 Cope, E.D. (n.gen.n.sp.)
 - x 1885a Woodward, H. (m470.)
 - x 1923a Allen, G.M. (m231.)
 - x 1966 Kellogg, R. (m65; comp. w/ *Rytiodus*, 78.)
 - *1975 Ray, C.E.
 - x 1982 Domning, Morgan & Ray (considered an odobenid; 2.)
- Herbicides: SEE Pollution, Effects of
- Hesperosiren* Simpson, 1932 (= *Metaxytherium*)
- x *1932a Simpson, G.G. (n.gen.; Mioc., Florida; 424, 426–427.)
 - x 1941 Kretzoi, M. (in classification; 153, 155.)
 - x 1945 Simpson, G.G. (in classification; 135, 251.)
 - x 1951 Reinhart, R.H. (m210.)
 - x 1957 Kellogg & Whitmore (paleoecology; 1022.)
 - x 1965 Arata & Jackson (m176.)
 - x 1971b Domning, D.P. (m217.)
 - x 1971 Ginsburg & Janvier (comp. w/ *Metaxytherium medium*; 184, 186.)
 - x 1974 Domning, D.P. (m8.)
 - x 1974 Fondi & Pacini (comp. w/ *Metaxytherium forestii*; 43.)
 - x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 14, 49, 51, 74.)
 - x 1982 Kleinschmidt, A. (m378–380.)
 - x 1987 Bajpai et al. (comp. w/ *Metaxytherium kachchense*; 22.)
 - x 1988 Domning, D.P. (records from Bone Valley [Florida] erroneous; 397, 400–401.)
 - *1994 Aranda-Manteca et al. (synonymized w/ *Metaxytherium*)
- Hesperosiren crataegensis* Simpson, 1932 (= *Metaxytherium crataegense*)
- x *1932a Simpson, G.G. (n.gen.n.sp.; Mioc., Florida; 427–443, 455, 464, 478, 495, 499.)
 - x 1932b Simpson, G.G. (mounted skeleton, New York; 5–7.)
 - x 1941 Gregory, J.T. (comp. w/ *Felsinotherium ossivalense*; 38.)
 - x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 66, 70.)
 - x 1966 Kellogg, R. (review, 66; comp. w/ *Metaxytherium calvertense*, 73, 78, 84–85.)
- x 1971 Reinhart, R.H. (m8.)
 - x 1972 Varona, L.S. (comp. w/ *Metaxytherium riveroi*; 7.)
 - 1976 Reinhart, R.H.
 - x 1985 Muizon & Domning (comp. w/ *Metaxytherium calvertense*; 205–206.)
 - x 1988 Domning, D.P. (comp. w/ *Metaxytherium florida-num*; 400–401, 413–415, 417–418.)
 - x 1989b Domning, D.P. (m56.)
 - x 1989 Morgan, G.S. (m39.)
 - x 1991 Bryant, J.D. (Mioc., Florida; 475–476, 481, 484, 486.)
 - x 1992 Hulbert, R.C., Jr. (Florida; in checklist; 29.)
- Hippopotamus dubius* Cuvier, 1824 (= *Protosiren minima*)
- *1824 Cuvier, G. (n.sp.)
 - x 1847b Gervais, F.L.P. (m209–210.)
 - x 1952 Hooijer, D.A. (syn. of *H. minimus*; 113.)
 - x 1966 Kellogg, R. (review; 68–70.)
 - x 1978c Domning, D.P. (considered type species of *Halitherium*; m576.)
 - x 1987b Domning, D.P. (history of name; 122–125.)
- Hippopotamus intermedius* Holl, 1829 (= *Metaxytherium medium*)
- *1829 Holl, F. (n.sp.)
- Hippopotamus medius* Desmarest, 1822 (= *Metaxytherium medium*)
- *1822 Desmarest, A.G. (n.sp.)
 - x 1847b Gervais, F.L.P. (m208.)
 - x 1867 Peters, K.F. (syn. of *Halitherium Cordieri*; m309.)
 - x 1952 Hooijer, D.A. (syn. of *Metaxytherium medium*; 113–114.)
 - x *1966 Kellogg, R. (review; 69–70.)
 - x 1971 Ginsburg & Janvier (syn. of *Metaxytherium medium*; 182–183.)
 - x 1977 Hooijer, D.A. (m3.)
 - x 1978c Domning, D.P. (m577.)
 - 1987 Domning & Thomas (syn. of *Metaxytherium medium*; 206.)
 - x 1987b Domning, D.P. (confusion with *Halianassa*; 123.)
- Hippopotamus minimus* Desmarest, 1822 (= *Protosiren minima*)
- *1822 Desmarest, A.G. (n.sp.)
 - x 1952 Hooijer, D.A. (priority over *H. dubius*; 113.)
 - x 1987b Domning, D.P. (priority over *H. dubius*; 123.)
- Hippopotamus minutus* Cuvier, 1824 (Hippopotamidae)
- *1824 Cuvier, G. (n.sp.)
- Histology (SEE ALSO: Skeleton; other organ systems)
- x 1820b Home, E. (DD; digestive organs, 317; lung cells &

- sacs, 319.)
- x 1861 Möbius, K. (TM; rostral pads; 148-156, pl. 7.)
- x 1862 Goebel, A. (HG; bone; chemical analysis; 188-193.)
- 1877 Garrod, A.H.
- 1878 Gulliver, G.
- 1878 Tomes, C.S. (teeth)
- 1880 Murie, J.
- x 1890 Pilliet, A.H. (*Trichechus*; stomach; 450-453.)
- x 1892 Waldeyer, W. (*Trichechus*; stomach, intestine; 81-85.)
- 1898 Tomes, C.S. (teeth)
- 1901 Gebhardt, F.A.M.W. (bone)
- x 1907 Pick, F.K. (DD; lung, 258-269; blood cells, 266-267.)
- x 1908 Humphreys, J. (*Trichechus*; dentine; m8.)
- 1911 Lefevre (*Halitherium*; bone)
- 1913 Hopewell-Smith, A. (DD; dentine)
- 1924 Mummery, J.H. (dentine)
- x 1929 Petit & Rochon-Duvigneaud (DD; eye; 135-136.)
- x 1931 Sickenberg, O. (osteosclerosis; 407-412, 416, 434-435.)
- x 1934 Addison, W.H.F. (*Trichechus*; brain cells; 587, 590.)
- 1934 Nopcsa & Heidsieck (pachyostosis)
- x *1935a Wislocki, G.B. (TM; lungs; 385-396.)
- x *1935b Wislocki, G.B. (TML; placenta; 164-171, 176-177, pls. 4-7.)
- x 1938 Oldham et al. (TI; hypophysis; 27-32.)
- xD 1939c Ijiri, S. (*Desmostylus japonicus*; tooth; 135-138.)
- 1940 Bélanger, L.F. (lungs)
- x *1942b Fawcett, D.W. (TML; bone, 271-285, 287-303, 308-309; thyroid, 285-287, 304-307.)
- 1946 Widdowson, T.W. (dentine)
- 1947 Amprino & Godina (bone)
- x 1951 Fernand, V.S.V. (DD; pituitary, adrenal; 57-62, pls. 1-2.)
- 1951 Kleinschmidt, A. (HG, skin, 294-295, 306-308, 310; TM, skin, 308.)
- x 1953 Fernand, V.S.V. (DD; tooth enamel, dentine, cementum; 144-146, pls. 28-29.)
- x 1953 Quiring & Harlan (TM; thyroid, adrenal, pituitary, thymus; 201.)
- x 1954 Cruz & Fernand (DD; changes caused by trematodes; 503-505.)
- x 1957 Gohar, H.A.F. (DD; skin; 11.)
- x 1958 Enlow & Brown (*Trichechus*; bone; 198-199, pl. 34.)
- x 1958 Knoll, W. (*Trichechus*; blood cells; 332-333.)
- x 1959a Engel, S. (DD; lung; 102-104, 106, 111-114.)
- x *1959b Engel, S. (DD; lung; 90-100.)
- 1960 Schwille, F. (bones, teeth)
- x *1962 Engel, S. (DD; lung; 95-107.)
- 1962 Glas, J.-E. (tooth enamel)
- x 1963 Boyde & Stewart (TM; tooth enamel; 1102-1103.)
- xD 1963 Mitchell, E.D., Jr. (*Paleoparadoxia*; pachyostosis; 196-197, 199.)
- xD 1964 Mitchell, E.D., Jr. (desmostylians; pachyostosis; 214.)
- 1967 Boyde & Lester (teeth)
- 1967 Cave & Aumonier (DD)
- 1967 Lester & Boyde (teeth)
- x *1968 Lemire, M. (*Trichechus*, DD; stomach; 477-491.)
- x 1969 Caldwell et al. (DD; gall bladder, liver; 437-441.)
- x 1969b Kaiser, H.E. (pachyostosis & histochemistry; m207-208.)
- D 1971 Iwata & Uozumi
- x 1972 Blessing et al. (*Trichechus*; spleen; 175-178, 182-188, 190, 193, 195-198, 200-202.)
- x 1972 Kenchington, R.A. (DD; digestive tract; 885-887.)
- 1972 Ota, Y.
- x 1972 Verhaar, W.J.C. (*Trichechus*; brain; 271-292.)
- D 1973 Kobayashi & Kamei
- D 1974 Kozawa, Y.
- x 1975 Forrester et al. (TM; histopathology; 567.)
- x 1976 White et al. (TML; blood; 413-415.)
- x *1977 Marsh, H. (DD; stomach, duodenum; 273, 278-292.)
- x 1978 Kasuya & Nishiwaki (DD; incisor growth layers; 301-310, 4 pls.)
- x 1980 Denton et al. (DD; liver; haemosiderin deposits; 213-214.)
- x 1980 Marsh, H. (DD; teeth; 184-189, 196.)
- x 1980 Miller et al. (TM; transseptal fibers & tooth replacement; 128A.)
- x 1981 Domning & Myrick (TI; bone; tetracycline marking; 203-207.)
- x 1981 Elliott et al. (DD; intestine, liver; salmonellosis; 203-206.)
- 1981 Kaiser et al.
- x 1981 Kamiya & Yamasaki (DD; sinus hair; 193-197.)
- x 1981 Yamasaki et al. (DD; tongue; 185, 190-191.)
- x 1982 Cohen et al. (TM; photoreceptors; 197-202.)
- x 1982 Kleinschmidt, A. (bone density, 387-389; HG, skin, 402, 404-409.)
- x 1982 Medway, Black & Rathbun (TM; hematology; 11-15.)
- x 1982 Reynolds & Krause (TM; duodenum; 35-38.)
- x 1983 Buegelt & Bonde (TM; toxoplasmic meningoencephalitis; 1294-1296.)
- x 1983 Piggins et al. (TI; retina; 116-117, 123.)
- x 1983 Wall, W.P. (TM; bone density; 197, 201-204.)
- x 1984 Bazzini et al. (TM; hemopoiesis in vertebral bodies; 19.)
- D 1984a Kozawa, Y.
- x 1984b Kozawa, Y. (tooth enamel prisms; 438-440.)
- x *1984 Marsh, Heinsohn & Channells (DD; female repro-

- ductive tract; 751-763.)
- x *1984 Marsh, Heinsohn & Glover (DD; male reproductive tract; 723-740.)
- x 1984 Snipes, R.L. (TM; cecum; 71-74.)
- 1985 Kozawa, Y. (tooth enamel)
- x 1985 Mackay-Sim et al. (TM; olfactory epithelium; 187-191.)
- x 1985 Ralph et al. (TM; pineal region of brain; 55-60.)
- x 1986 Bazzini et al. (TM; hemopoiesis; 150-152.)
- 1986 Kalashnikova & Kazanskaya (TM; liver cells)
- 1986 Umnova & Novoselova (TM; skeletal muscles)
- x 1988 Fischer, M.S. (TM; external auditory meatus, 367; tympanic membrane, 368; tympanic cavity, 370; eustachian tube, 373.)
- D 1988b Kamiya, H. (*Paleoparadoxia*; tooth enamel)
- 1989 Buffrénil & Schoevaert (DD; pachyostosis)
- x *1989 Buffrénil & Schoevaert (DD; pachyostosis; 2107-2119.)
- x 1989 Hill & Reynolds (TM; kidney; 53-56.)
- x 1989 Maluf, N.S.R. (TM; kidney; 277-278, 280, 282-283.)
- x 1990 Buergelt et al. (TML; thickened heart valves; 220-227.)
- x 1991 Domning & de Buffrénil (pachyosteosclerosis; 334-336, 358-364.)
- x 1992 Ketten et al. (TML; middle & inner ear; 83-84, 86-88.)
- D 1992 Sakae, T. (*Desmostylus*; enamel mineralogy)
- Historical Notes
- x 1846a Brandt, J.F. (discussion of study of rostral pads of HG; 91-94.)
- 1861 Brandt, J.F.
- x 1868c Brandt, J.F. (discussion of contents of *Symbolae Sirenologicae*; 471-474.)
- x 1868d Brandt, J.F. (new reconstruction of HG in *Symbolae Sirenologicae*; 457-458.)
- x 1893 Stejneger, L. (HG skeletons in museums; 81.)
- x 1897 Sinclair, W.F. (DD; possible mention by Cosmas of Alexandria [6th century A.D.]; 198.)
- x 1923 Jackson, E.S. (DD; Australia; medicinal use of oil by Dr. Wm. Hobbs; m282.)
- x 1942 Simpson, G.G. (early finds of fossil sirs. in North America; m177.)
- D 1971 Takashi, Y.
- x 1974 Rayfield, E. (map with illustration of HG reproduced from National Ocean Survey archives, after Dall [1891]; 45, 47.)
- x 1975 Bertram & Sale (report of meeting on dugong research in East Africa; 389-390.)
- x D 1977 Hasegawa, Y. (artists' reconstructions of desmostylians; pop. acc.; 90-91.)
- 1978 Arvy, L.
- x 1978 Stanbury, P.J. (DD; Australia; accounts of Dampier & Portlock; 18.)
- x 1985 Baldwin, C.L. (DD; Australia; research in progress, Feb. 1984; Appendix.)
- 1987 Bertram, G.C.L. (account of the Bertrams' studies of sirs.)
- x 1988 Flannery, T. (HG skeleton in Australian Museum, Sydney; 462.)
- 1991 Yamashita, K. (DD; in ancient Japanese documents)
- x D 1993 McAnally, L.M. (*Cornwallius sookensis*; British Columbia; discovery & theft of type material; 8-9.)
- Homing: SEE Migration and Movements
- Honduras (SEE ALSO: Central America)
- 1935 Strong, W.D. (TMM)
- 1940 Hagen, V.W.v. (TM)
- 1974 Davidson, W.V. (TMM now absent from Bay Islands)
- x *1979 Klein, E.H. (TMM; status & distr.; 21-28.)
- x 1983 Rathbun et al. (TMM; status; 301-308.)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 582, 606.)
- Hungary
- 1902 Schafarzik, F.
- 1911 Koch, A. (*Halitherium*; Olig.)
- x 1917 Schröter, Z. (*Metaxytherium petersi*; Mioc.; 176-177.)
- 1934b Sickenberg, O.
- 1935 Fekete, Z.
- x *1941 Kretzoi, M. (*Sirenavus hungaricus*, n.gen.n.sp., Middle Eoc.; & other sirs.; 146-147, 156.)
- 1944 Mottl, M. (Eoc.)
- x *1951 Kretzoi, M. (*Haplosiren leganyii*, n.gen.n.sp.; Mioc.; 438-441.)
- x 1953 Kretzoi, M. (indeterminate sir.; Early Eoc., Dudar; 273-277.)
- 1955 Kretzoi, M.
- 1965 Balogh & Rónai (Eoc.)
- 1971 Detre et al. (Eoc.)
- 1976 Kordos, L.
- x *1977 Kordos, L. (*Paralitherium tarkanyense*, n.gen.n.sp.; Late Eoc., Felsőtárkány; 349-367.)
- x 1978 Kordos, L. (*Protosiren cf. fraasi*; Middle Eoc., Felsögalla; 288-289.)
- *1979 Kordos, L. (*Anisosiren pannonica*, n.gen.n.sp.)
- x 1980 Kordos, L. (*Eotheroides* sp.; Middle Eoc., Balinka; 385-397.)
- 1983 Báldi, T.
- 1984 Kordos & Solt
- x 1985a Kordos, L. (sir. fossil record; 314.)
- 1985b Kordos, L. (specimens collected by F. Legányi)
- 1985c Kordos, L.

- Hunting and Capture (SEE ALSO: Accidental Mortality; Archeological Sites, Sirenians at; Captivity, Sirenians in; Conservation; Economic Use; Natural Enemies; Weed Control)
- 1526 Oviedo, G.F. de (TMM; West Indies)
- x 1743 Barrere, P. (TMM; French Guiana; 159-161, 1 pl.)
- 1764 Soimonov, F.I. (HG)
- x 1791 Bartram, W. (TML; Florida; 231-232.)
- x 1801 Edwards, B. (TMM; West Indies; remoras; 1: 127.)
- x 1809 Descourtilz, M.E. (TMM; San Domingo; 2: 274-276.)
- x 1820 Raffles, T.S. (DD; Singapore; harpoons; 180-181.)
- x 1824 Harlan, R. (TML; Florida; harpoon; 392.)
- x 1825a Harlan, R. (TML, Florida, 277; TMM, Belize, 278; harpoons.)
- x 1826 Wied-Neuwied, M. zu (TMM; Brazil; harpoons; 603.)
- x 1829 Maw, H.L. (TI; Brazil-Peru border; harpoons; m237.)
- x 1831 Spix & Martius (TI; Brazil; hunted during high water; 1122.)
- x 1834 Ruppell, E. (DD; Red Sea; harpoons; 100, 112-113.)
- x 1836 Smyth & Lowe (TI; Peru; harpooned in rainy season; 242-243.)
- 1837 Williams, J.L.
- x 1838 Humboldt, A.v. (TMM; Orinoco R.; annual hunts; 9.)
- x 1843 Backhouse, J. (DD; Australia; nets; 368-369.)
- x 1847 Edwards, W.H. (TI; Brazil; harpoons; 187.)
- 1847 Young, T. (TM)
- 1852 MacGillivray, J. (DD; Moreton Bay, Australia; fishery)
- x 1853 Wallace, A.R. (TI; Brazil; 187, 460.)
- x 1857 Fairholme, J.K.E. (DD; Australia; nets, harpoons; 353.)
- x 1857 Holton, I.F. (*Trichechus*; Colombia, Brazil; m46.)
- x 1857 Shaw, N. (TS; Benué R., Africa; m99.)
- x 1863c Brandt, J.F. (HG; extermination; 558-564.)
- x 1867a Brandt, J.F. (HG; extermination; 445-450.)
- x 1869 Marcoy, P. (*Trichechus*; South America; 1: 673; 2: 149-153, 157.)
- 1871 Klunzinger, C.B. (DD; Red Sea)
- x 1871 Myers & Myers (TMM; Orinoco R.; harpoons, stockades; 103.)
- x 1875 Marcoy, P. (*Trichechus*; South America; 2: 45, 187-191, 194.)
- 1876 Gill, W.W. (DD; Torres Strait)
- x 1876 Orton, J. (TI; Brazil; harpoons, nets; 299, 477.)
- 1876 Rambler (TML; Florida)
- x 1880 LeBaron, J.F. (TML; Florida; nets, guns; 1006.)
- x 1881 Anon. (DD; Queensland; nets, 744-745; harpoons, 745.)
- x *1881 Flower, W.H. (TS; West Africa; traps set on land; manatee-catching society; 454-455.)
- x 1882 Faithful, P. (DD; Queensland; nets [made in England!], harpoons; 11.)
- x 1883 Moloney, C.A. (TS; Gold Coast; traps, nets; 27-28.)
- x 1884b True, F.W. (*Trichechus*; Americas; nets, guns, harpoons, crossbows; 123-127.)
- x 1886 Miklouho-Maclay, N. de (DD; Australia; nets, drowning; m193.)
- x 1887 Roviroso, J.N. (TMM; Mexico; harpoons; 357.)
- x *1887 Stejneger, L. (HG; Commander Islands; 1048-1053.)
- 1889 Jacobsen (DD; Indonesia)
- x 1890 Büttikofer, J. (TS; Liberia; guns, harpoons, nets, fences; 2: 392-393.)
- 1890 Senior, W. (DD; Queensland)
- x 1891 Stuart, H.V. (TML; sold as beef in New York; 137.)
- x 1893 Goeldi, E.A. (*Trichechus*; Brazil; harpoons, nets; 120.)
- 1893 Stretton, W.G. (DD; Australia; making of harpoon rope)
- 1894 Kuroiwa, T. (DD)
- x *1895 Veríssimo, J. (TI; Brazil; harpoons, nets; 35-39, 92-93.)
- x 1898 Anon. (TML; Seminole Indians, Florida; harpoons; 102.)
- x *1899 Steller, G.W. (HG; Bering Is.; clubs, axes, hooks; 197-199.)
- x 1901 Anon. (DD; Torres Strait; nets, harpoons; 21238-21239.)
- *1901a Finsch, O. (DD; Papua New Guinea, Australia)
- x 1901 Roth, W.E. (DD; Queensland; harpoons, fences; 30.)
- 1902 Moriceau (DD; Madagascar)
- x *1903 Rodriguez Ferreira, A. (TI; Pará, Brazil; 169-170, 172-173.)
- x 1904 Allen, J.A. (TMM; Colombia; 423.)
- x 1904 Wilcox, W.A. (TMM; Puerto Rico; nets; 387.)
- x 1906 Annandale, N. (DD; India, nets, 241-242; Australia, nets, 242.)
- x *1906b Dexler & Freund (DD; Australia; nets; 51-52, 55, 60-61, 64.)
- x 1907 Dimock, A.W. (TML; Florida; live capture; 848-853.)
- 1908 Dimock, A.W.
- 1908 Maclaud, C. (TS; West Africa)
- x 1909 Anon. (DD; Australia; nets; 93.)
- x 1910 Packard, W. (TML; Florida; accidental netting; m144-145.)
- x 1911 Gann, T.W.F. (TMM; Belize; ?use of nets by ancient Maya; 78.)
- x 1912 Harris, W.K. (DD; Australia; nets, harpoons; 227.)
- x 1912 Rodway, J. (TMM; Guyana; m84.)
- x 1913 Frobenius, L. (TS; Yoruba rituals; 1: 199.)

- x 1914 Woodroffe, J.F. (TI; Amazonia; traps; 243–244.)
- 1917 Brown, W.P. (TML; Florida)
- x 1917 Fairchild, D. (TML; Florida; 343–344.)
- x 1918 Cuní y Valera, L.A. (TMM; Cuba; 95.)
- x 1919 Jay, D. (DD; Australia; harpoons; 40–41.)
- x *1920 Goldman, E.A. (TMM; Panama; 70–71.)
- x 1922 Golder, F.A. (HG; by Bering expedition; 237–238, 279.)
- x 1922 Swanton, J.R. (TML; Florida; by Indians; 389.)
- x *1923a Petit, G. (DD; Madagascar, harpoons, nets, rituals, 75–77, 81–82; New Guinea, nets, 82.)
- 1924 Abraham, H.C. (DD; Malaysia; harpoons)
- 1924 Adams, M.P.G. (DD; northwestern Australia)
- x *1924 Dandouau, A. (DD; Madagascar; harpoons, rituals; 151–153.)
- x 1924–
- 1925 Vosseler, J. (TI; Brazil; for aquarium; 63–64.)
- x 1925 Fernandes, A. de A. (*Trichechus*; Brazil; harpoons; 263–267.)
- x 1925 Lee, I. (DD; Australia; net; 520.)
- x *1925 Steller, G.W. (HG; Bering Is.; hooks, harpoons; 180, 227–228.)
- 1925 Tindale, N.B. (DD; Australia)
- x 1926 Derscheid, J.M. (TS; Congo; nets; kept alive for weeks; 30.)
- x 1926 MacCreagh, G. (TI; Rio Uaupés area, Brazil; by Tiquié Tucana Indians; harpoon, blowgun; 313, 323–324.)
- x 1926 Schurz, W.L. (TI; Brazil; 2 photos of carcasses; 449–450.)
- 1927 Landtmann, G. (DD; New Guinea; rituals)
- x *1927b Petit, G. (DD; Madagascar; rituals; 246–250.)
- x 1928 Cundall, F. (TMM; Jamaica; 139, 143.)
- x 1928 Prater, S.H. (DD; nets, harpoons; 87–88.)
- x 1929 Prater, S.H. (DD; Andaman Islands, harpoons; India, nets; 987.)
- x 1931 Tate, G.H.H. (*Trichechus*; South America; harpoons; 253.)
- 1932 Haddon, A.C. (DD; Torres Strait)
- x 1932 Hirasaka, K. (DD; Japan & Ryukyus; 3.)
- 1932 Petrie, C.C. (DD; Queensland; nets & harpoons)
- x *1933 Jobim, A. (*Trichechus*; Brazil; techniques; 140–144.)
- x 1934 Bittencourt, A. (TI; Brazil; 24–25.)
- x 1934 Hirasaka, K. (DD; Japan & Ryukyus; 4221.)
- x *1934 Thomson, D.F. (DD; Cape York, Australia; Aboriginal hunting lore; 237–263, pls. 29–30.)
- x *1935 Barrett, O.W. (TMM; Central America; 216–217.)
- x 1936 Sunter, G.H. (DD; Australia; harpoons; 47–48.)
- x 1937 Johnson, E. (TS; Gambia; nets; 63–64.)
- x 1937 Pinheiro, A. (*Trichechus*; Brazil; 215–218.)
- x 1937 Promus, J. (DD; Queensland; commercial netting; 40–41.)
- x 1937 Sanderson, I.T. (TS; West Africa; 267.)
- x 1937 Sunter, G.H. (DD; Australia; harpoons; 53–61.)
- x *1937 Woods, F.J. (TS; Nigeria; traps, bait, harpoons, nets; 23–27.)
- x 1938 Wood, T. (DD; Buccaneer Archipelago, Australia; m53.)
- x 1939 Coates, C.W. (TI; Brazil; harpoons, nets, guns; 148.)
- 1939 Patterson, E.K. (DD; Australia)
- x 1939 Wavrin, M. de (*Trichechus*; Amazonia & northern South America; beating, harpoons; 194–196.)
- x 1940 Machado, F. de P. (TI; Brazil; hunted chiefly in winter; 246.)
- x 1941 Landa, D. de (TMM; Yucatan; harpoons; 16th century; 190–191.)
- x 1941–
- 1943 Pereira, M.N. (TI; Brazil; harpoons, nets; 100, 102, 153.)
- x 1942 Morison, S.E. (TMM; Cuba, remoras, in 1494, 457; Dominican Republic, in 1502, 592.)
- 1944 Andreyev, A.I. (HG)
- x *1944 Morais Rêgo, A.R. de (TI; Brazil; harpoons; 10–12.)
- x *1944 Pereira, M.N. (TI; Brazil; hunted less in black water, 45; holes made by hunters in floating meadows, 48; hunting pressure in different regions, 53–55; hunting methods, 72–83.)
- 1945 Church, A.E. (DD; Australia)
- x 1945 Santos, E. (TI; Brazil; harpoons, nets; 157–158.)
- x *1946 Baughman, J.L. (*Trichechus*; Americas; 234–237.)
- 1946 Harney, W.E. (DD; Australia)
- x 1946 Swanton, J.R. (TML; Florida; by Indians; 250, 282, 297–298, 329.)
- x 1947 Harwood, K. (TML; Florida; live capture by harpoon; 50.)
- x 1947 Marden, L. (TMM; Guatemala; 546, 552, 558.)
- *1948 Andreyev, A.I. (HG; Bering Is., 1759–60; Cherepanov's account; 113–115.)
- x 1948 Bessac & Villiers (TS; Senegal; harpoons, nets, shark nets, superstitions; 188–189.)
- x 1948 Mendes, A. (TI; Brazil; harpoons, nets; 326.)
- x 1949 Loveless, J.R. (DD; Queensland; nets; 8.)
- 1950 Durand, J. (TM)
- x 1951a Moore, J.C. (TML; Florida; poaching; 4, 6, 8–11.)
- x 1951b Moore, J.C. (TML; Florida; 23, 35.)
- 1951 Taylor, D.M. (TMM; Belize)
- x 1952 Andreyev, A.I. (HG; Bering Is., 1758–59; 19.)
- x 1954 Aragão, A. de (TI; Brazil; harpoons; 54–56.)
- x *1955 MacMillan, L. (DD; Australia; nets, harpoons; 19.)
- 1956 Thomson, D.F. (DD; Queensland)
- x 1957 Cadenat, J. (TS; Senegal; accidental capture; 1368–1369.)
- x 1957 Gohar, H.A.F. (DD; Red Sea; nets; 5.)
- x 1957 Meggers & Evans (TI; Brazil; by Indians; m570.)
- x 1958 Fichter, G.S. (TML; Florida; m31–32.)

- x 1959 De Silva, J.A. (DD; Sri Lanka; 173-174.)
- x 1959 Spittel, R.L. (DD; Sri Lanka; statistics; 174-175.)
- x 1960 Blancou, L. (TS; West Africa; m244.)
- x 1960 Crusz, H. (DD; Sri Lanka; 301-302.)
- x 1960 Jonklaas, R. (DD; Sri Lanka; nets, harpoons; 303.)
- x 1960 Mani, S.B. (DD; India; 217.)
- x *1960 Norris, C.E. (DD; Sri Lanka; statistics; 297-300.)
- x 1961 Jonklaas, R. (DD; India; nets, harpoons; 7-8.)
- x 1961 Silas, E.G. (DD; India; nets; 265-266.)
- x 1962 Bertram & Bertram (TMM; Guyana; 1329.)
- 1963 Bertram, G.C.L. (TMM; Guyana)
- 1963 Freundt de Castro, E.
- 1963 Kulatunge, D.
- x 1963 Pfeiffer, P. (DD; Indonesia; harpoons, nets; 150-151.)
- x 1964a Anon. (TML; Florida; netted for weed-control study; 29-30.)
- x 1964 Cansdale, G. (TS; Ghana; rituals; m171.)
- x 1964 Johnson, D.H. (DD; Arnhem Land, Australia; 507.)
- x 1965 Harrison, T. (DD; Borneo & Sabah; hunting & accidental netting; 103.)
- x 1965 Layne, J.N. (TML; Florida; guns; 166-167.)
- x *1965 Lluch B., D. (TMM; Mexico; netting & live transport, 414-417; harpoons; m416.)
- x 1966a Anon. (DD; Kenya; nets; pop. acc.; 46-49.)
- x 1966a Bertram & Bertram (DD; Australia; 938-939.)
- x 1966b Bertram & Bertram (gen. acc.; 212-217.)
- x *1966 Jarman, P.J. (DD; Kenya; harpoons, nets; 85.)
- x *1966 Thomas, D. (DD; Rameswaram, India; nets; 80-82.)
- x 1967 Aung, S.H. (DD; Burma; net; m221.)
- x 1967 Edwards, W.E. (HG; extermination; m148.)
- x 1967 Jones, S. (DD; India; net; 216-217.)
- x 1967 MacLaren, J.P. (TMM; by Caribbean buccaneers; 387.)
- 1967 Van Reyk, P.
- x *1967 Welsby, T. (DD; Queensland; harpoons, nets; 1: 104-110, 2: 233-257.)
- 1968 Banfield, E.J. (DD; Queensland; harpoons, nets, rifle; contraction of hide prevents bleeding from bullet wounds)
- x 1968 Charnock-Wilson, J. (TMM no longer hunted in Belize; 293-294.)
- x 1968 Grimwood, I.R. (TI; Peru; exploitation; 418.)
- x 1969 Chelnokov, F.G. (HG; Bering Is.; butchering; 71, 73.)
- x 1969 Gibson, J.R. (HG; by Russians; 30, 48, 51-52.)
- x 1969 Grimwood, I.R. (TI; Peru; exploitation; 61.)
- 1969 Sauer, C.O.
- x 1970a Bertram & Bertram (DD; Sri Lanka; accidental netting; 53-55.)
- x 1970b Bertram & Bertram (DD; Sri Lanka; accidental netting; 363.)
- x 1970 Yin, T. (DD; Burma; nets; 326.)
- x 1971b Domning, D.P. (HG; extermination by North Pacific aborigines; 219.)
- x 1971 Hughes & Oxley-Oxland (DD; Mozambique; nets; 300-301.)
- x 1971 Kingdon, J. (DD; East Africa; nets, harpoons, drowning with a heavy stone; 397-398.)
- x *1972b Domning, D.P. (HG; extermination, & origin of North Pacific aboriginal whaling; 187-189.)
- x 1972 Heinsohn & Birch (DD; Queensland; shark nets; 415-417.)
- x *1972 Heinsohn, G.E. (DD; Queensland; shark nets; 205-208.)
- x 1972 Kenchington, R.A. (DD; Australia; accidental netting; 884.)
- x 1972 Stoddart, D.R. (DD; western Indian Ocean; by Europeans; 209-210.)
- x 1972 Walker, K. (DD; Queensland; nets; 71, 73.)
- x *1973 Bertram & Bertram (DD, magnitudes & trends of takes, 307-316, 333, techniques, 324-328; *Trichechus*, magnitudes & trends of takes, 316-321, 327.)
- x 1973 Vorontsov, N.N. (HG; extermination by North Pacific aborigines; 124.)
- x 1974a Hartman, D.S. (TML; Florida; vandalism, poaching; 214-215.)
- x *1974 Heinsohn & Spain (DD; Queensland; shark nets; 146-152.)
- x 1974 Mondolfi, E. (TMM; Venezuela; harpoons, nets; 12-14.)
- 1974 Proby, K.H. (TM; ?Florida)
- x *1974 Sikes, S. (TS; Nigeria; harpooning by Kabawa; 467-468.)
- x 1975 Lynd, W. (TML; Florida; rescue & rehabilitation; 28-29.)
- x 1975 Weber, T., Jr. (TML; Florida; dropping harpoons from bridges; 66-67.)
- x 1976 Allen et al. (DD; Sulawesi; netted for aquarium; 35.)
- x 1976 Cole & Okera (TS; Sierra Leone; traps; m43.)
- x *1976 Heinsohn, Marsh & Spain (DD; Australia, nets, netting technique, 117-121; Kenya, accidental netting, 121.)
- x *1976 Loveland, F.O. (TMM; Nicaragua; harpoons; 74-77.)
- x 1976 Tas'an (DD; Indonesia; netted for oceanarium; 1-3.)
- x 1976 Whitaker, Z. (DD; India; nets, clubs; 6.)
- x 1977 Harris & Bertram (DD; Abu Dhabi; nets; 5-6.)
- x 1977 Heinsohn et al. (DD; Australia; nets, harpoons; 242-244.)
- x 1977 Lovisek, J. (TI; Amazonia; hunted during droughts; 64.)
- x 1977 Whitmore & Gard (HG; by Aleuts & Russians; 3, 18.)

- x *1978 Anderson & Heinsohn (DD; Australia; questionnaire surveys; 13–26.)
- x *1978b Domning, D.P. (HG; N. Pacific; extermination, 132–135, 141; Yakovlev's and Cherepanov's accounts, 163–165.)
- x 1978 Husson, A.M. (TMM; Suriname; baiting with bananas; 338.)
- x 1978 Stanbury, P.J. (DD; Australia; by Dampier; m18.)
- 1978 Stark & Voorhies
- x 1979 Anderson, P.K. (DD; Palau; harpoons; skin thought "impenetrable" after being struck by first spear; use of unbarbed points; 127.)
- x 1979 Caton, A. (DD; Australia; pop. acc.; photos of harpoons; 1–4.)
- x 1979 Hartman, D.S. (TML; Florida; vandalism; 126.)
- x 1979 Klein, E.H. (TMM; Honduras; harpoons; 24–25.)
- 1979 Moore, D.R. (DD; Cape York, Australia)
- x 1979 Tas'an et al. (DD; Indonesia; nets; live capture; 1–5, 8, 17.)
- x 1980 Belitsky & Belitsky (TMM; Dominican Republic; 317–318.)
- x 1980 Cumbaa, S.L. (TML; prehistoric Florida; 8–9.)
- x 1981 Brownell et al. (DD; Palau; harpoons, explosives; 24, 34–35.)
- x 1981a Domning, D.P. (TI, TMM; Brazil; harpoons, stockades; 91–96.)
- x 1981 Elliott, M.A. (DD; Northern Territory, Australia; 63–64.)
- x 1981 Hendrokusumo et al. (DD; Indonesia; accidental netting; 10, 12.)
- x 1981b Hudson, B.E.T. (DD; Papua New Guinea; restrictions on harpooning & netting; 128–130.)
- x 1981 Johannes, R.E. (DD; Palau; hunting & sale; 25, 68, 73.)
- x 1981 Johnstone & Hudson (DD; Papua New Guinea; catch records; 682–684.)
- x 1981 Jones, S. (DD; Burma, India, Sri Lanka; 45–51.)
- x *1981 Marsh et al. (DD; Wellesley Islands, Queensland; harpoons, lassos; 255–267.)
- x 1981 Miller, R.R. (TML; New Jersey; nets; m53.)
- x 1981 Nietschmann & Nietschmann (DD; Torres Strait; harpoons; 54–62.)
- x 1981 Powell et al. (TMM; Puerto Rico; nets; 645.)
- x 1981 Purse, B. (DD; Queensland; harpoons; review of film; 199–200.)
- x 1981b Smith, N.J.H. (TI; Itacoatiara, Brazil; nets, harpoons; 95–96.)
- x 1982 Barnett & Johns (DD; Queensland; harpoons; 517–519.)
- x 1982 Best & Teixeira (*Trichechus*; Amapá, Brazil; bait, harpoons, nets; 43–44.)
- x 1982a Best, R.C. (TI; Amazonas, Brazil; peak hunting seasons; 77.)
- 1982 Laughlin & Harper (HG)
- x 1982 Marsh & Heinsohn (DD; Australia; accidental netting, poaching; 3.)
- x 1982 Wing & Reitz (TMM; Caribbean; spears; 24.)
- x 1983 Best, R.C. (TI; Brazil; hunted during dry-season congregations; 62–63.)
- 1983 Hudson, B.E.T. (DD; Torres Strait)
- x *1983 Marsh & Anderson (DD; Australia; capture myopathy; 1–3.)
- x 1983 Rathbun et al. (TMM; Honduras; harpoons, nets; 305–307.)
- x 1983 Tisdell, C.A. (DD; Papua New Guinea; economy & conservation; 14–15.)
- x 1984b Best, R.C. (TI; Brazil; 372–374.)
- x 1984 Hudson, B.E.T. (DD; Papua New Guinea; platforms, harpoons, nets; pop. acc.; 298–301.)
- x 1984 Marsh, Heinsohn & Marsh (DD; Australia; Aborigines' reluctance to kill "wati dangal"; 783.)
- x *1984 Nietschmann, B. (DD; Torres Strait; catch statistics, 1976–1979; 641–647.)
- 1985a Anon. (DD; Australia)
- x 1985 Beckjord, J.-E. (DD; Papua New Guinea; nets; m155.)
- x 1985 Kenchington, R.A. (DD; Great Barrier Reef, Australia; regulation of hunting; 89–90.)
- x 1985 McKillop, H.I. (TMM; Caribbean region; historical, ethnographic, & archeological records; 338–348.)
- x *1985 O'Shea, Rathbun et al. (TML; Florida; no evidence of capture myopathy; 335–349.)
- x 1985 Rathbun, Woods & Ottenwalder (TMM; Haiti; nets, harpoons, stoning to death; 234–236.)
- x 1986 Bayliss, P. (DD; Cobourg Peninsula, Australia; harvest of about 12 per year by Aborigines; 35.)
- x 1986 Blair, D. (DD; Queensland; photo of harpooning; S21.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; explosives, harpoons, nets; 1009–1010.)
- x 1986 Goldsmith, P. (DD; East Africa; remoras; 231.)
- *1986c Hudson, B.E.T. (DD; Papua New Guinea; traditional hunting & conservation)
- x *1986a Marsh, H. (DD; Torres Strait; catch statistics; 53–55, 66, 69–73.)
- x 1986 Prince, R.I.T. (DD; Western Australia; "by hand" & harpoons; catch estimates; 22–24, 36.)
- x 1986 Timm et al. (TI; Ecuador, Peru; harpoons; 151, 154.)
- x 1986 Williams, T.R. (DD; Papua New Guinea; gun; 67.)
- 1987 Beckett, J. (DD; Torres Strait)
- x 1987 Whitten et al. (DD; Sulawesi; 208.)
- 1988 Bradley, J.J. (DD; Australia)
- x 1988 Carowan, G. (TML; Florida; accidental entanglement in shrimp net; m5.)
- 1988 Davis, S. (DD; Australia)
- x 1988 Doig & Dyson (DD; Queensland; photos of

- hoop-netting; 436–437.)
- 1988 Gray & Zann (DD; Australia)
- x 1988 Ho, H.C. (DD; Malaysia; harpoons; 22, 24.)
- x 1988e Marsh, H. (DD; Queensland; harpoons, guns; 496–499.)
- x 1988 O'Shea et al. (TMM; Venezuela; harpoons; 282, 286, 288–297.)
- x 1988a O'Shea, T.J. (TML; Florida; historical records; 186, 190.)
- x 1988 Rathbun et al. (DD; Palau; harpoons, guns, dynamite; 268.)
- x *1988 Reeves et al. (TS; Sierra Leone; traps, nets, harpoons, 76–84; catch statistics, 80–81.)
- 1988 Smith, A.J. (DD; Queensland)
- x 1989 Bayliss & Freeland (DD; Gulf of Carpentaria, Australia; estimates of sustainable yield; 146–147.)
- x 1989 Chambers & Bani (DD; Vanuatu; 13–14.)
- x *1989 Leatherwood & Reeves (DD; Sri Lanka; nets, harpoons, dynamite; catch statistics; 4, 86–89.)
- x 1989a Preen, A. (DD; Arabian region; catching by hand & killing with clubs, 47, 50, 114; drowning with cement blocks, 50; capture for tagging, 56, 87–88; metal hooks & harpoons, 96–97, 114; nets, 99, 114.)
- x 1989 Timm et al. (TI; Ecuador; by Siona Indians; harpooning techniques; 1–4.)
- x 1990 Smith & Marsh (DD; Queensland; management of traditional hunting; 47–55.)
- x *1991 Bradley, J.J. (DD; Sir Edward Pellew Islands, Australia; traditional hunting & butchering customs, 91–110; poaching by whites with guns, 107, 110.)
- x 1992 Borobia & Lodi (TMM; northeastern Brazil; nets, harpoons; 40–41.)
- Hydrodamalidae Palmer, 1895 (1833) (family; = Hydrodamalinae)
- x *1895 Palmer, T.S. (n.fam.; 449–450.)
- x 1901 Elliott, D.G. (diagnosis; 5.)
- x 1941 Kretzoi, M. (in classification; 155.)
- x 1945 Simpson, G.G. (in classification; 135.)
- x 1967 Browder, J. (m5.)
- x 1978b Domning, D.P. (syn. of Hydrodamalinae; m13.)
- Hydrodamalinae (Palmer, 1895 [1833]) Simpson, 1932 (subfamily)
- x *1932a Simpson, G.G. (new rank; 424.)
- x 1945 Simpson, G.G. (in classification; 135.)
- 1960 Kaiser, H.E.
- x 1971a Domning, D.P. (history in Pacific; 110–111.)
- x *1978b Domning, D.P. (definition; 3–4, 13.)
- Hydrodamalis* Retzius, 1794
- *1794 Retzius, A.J. (n.gen.)
- xv 1809a Cuvier, G. (history of study, 277–278; as distinct genus, 282; comp. w/ *Trichechus*, 296–299; in Greenland, based on Fabricius, 299.)
- x 1840 Baer, K.E.v. (syn. of *Rytina*; m53.)
- x 1895 Palmer, T.S. (name considered senior to *Rytina*; 449.)
- x 1899 Palmer, T.S. (name considered senior to *Rytina*; m494.)
- x 1901 Elliott, D.G. (diagnosis; 5.)
- x 1904a Lorenz, L.v. (m7.)
- xD 1915 Hay, O.P. (comp. w/ *Desmostylus*; m386.)
- x 1917 Palmer, W. (m344.)
- x 1923a Allen, G.M. (m231, 234; vertebrae, comp. w/ *Metaxytherium floridanum*, m235.)
- x 1924 Thomas et al. (syn. of *Rhytina*; 347.)
- x *1925 ICZN (name upheld in preference to *Rhytina*; 38.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 421–424, 427, 435, 443, 454, 480–482, 485–488, 490, 495–496, 499.)
- x 1941c Heuvelmans, B. (loss of teeth; 14.)
- x 1941 Kretzoi, M. (in classification; 153, 155.)
- x 1941a VanderHoof, V.L. (phylogeny; 1985.)
- x 1942a Kaltenmark, J. (gen. acc.; 56–57.)
- xv 1943 Heuvelmans, B. (loss of teeth; 5–6.)
- x 1945 Simpson, G.G. (in classification; 136.)
- x 1951 Kleinschmidt, A. (syn. of *Rhytina*; m292.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 63–64.)
- x 1966a Kaiser, H.E. (illustration [from Kleinschmidt, 1951]; 61.)
- x 1968a Kaiser, H.E. (occiput; 478.)
- x 1968 Rice & Scheffer (distr., 5; *Rhytina* a synonym, 12.)
- x *1970 Shikama & Domning (Plioc., Japan; 390–396, pl. 44.)
- 1971 Palmer, G.F.
- x 1972a Domning, D.P. (evolution & distr.; 147–149.)
- x 1973 Shikama et al. (Japan; stratigraphic range; 138, 140–141.)
- x 1978a Domning, D.P. (neck muscles & feeding; 69.)
- x *1978b Domning, D.P. (morphology, evolution, extermination; 2–4, 7, 12–13, 20, 25, 72–110, 112–146, 158–165.)
- x 1978c Domning, D.P. (phyletic position; m574, 579.)
- x 1981c Domning, D.P. (proposed placing on Official List of Generic Names; 130–132.)
- 1982 Furusawa & Kimura (Hokkaido)
- 1982 Kimura, M. (Hokkaido)
- x 1982 Kleinschmidt, A. (syn. of *Rhytina*; 382.)
- x 1983 Kimura et al. (Pleist., Hokkaido; 162, 165, 167, 169, 174–175, pl. 4.)
- x *1985 Melville, R.V. (placed on Official List of Generic Names; 175–176.)
- x 1989a Domning, D.P. (evolution & feeding on kelp; 53–56.)

- x 1989d Domning, D.P. (comp. w/ *Xenosiren yucateca*; 435-436.)
- x 1991 Domning & de Buffrénil (pachyosteosclerosis; m362.)
- Hydrodamalis cuetae* Domning, 1978
- xv 1970 Shikama & Domning ("new species of *Hydrodamalis*"; m395.)
- xv 1971a Domning, D.P. ("*Hydrodamalis* n. sp."; m110.)
- xv 1971b Domning, D.P. ("*Hydrodamalis* n. sp."; evolution; 217-218, 220.)
- xv 1975 Domning & Frye ("*Hydrodamalis* sp. nov."; pathology; 3-4, pl. 2.)
- xv 1977b Domning, D.P. ("*Hydrodamalis* C"; phyletic position & role in North Pacific paleoecology; 354, 356-358, 360.)
- xv 1977 Whitmore & Gard ("*Hydrodamalis* n. sp."; m3, m18.)
- x *1978b Domning, D.P. (n.sp.; Plioc., California & Baja California; 29, 32, 35-36, 47-48, 55-61, 72, 75-93, 96-97, 100-104, 106-107, 114, 117, 123-124, 129, 143-146, 158-160, pls. 5-9, 13-17.)
- x 1981 Barnes et al. (Plioc., San Mateo Formation, California; 56-57, 62-63.)
- x 1983 Takahashi et al. (comp. w/ Yamagata *Dusisiren*; 8, 13, 15-16.)
- x *1984 Domning & Deméré (Plioc., San Diego Co., California; 169-188.)
- x 1984 Rainey et al. (date of divergence from other dugongids; 587.)
- x *1986 Takahashi et al. (comp. w/ *Dusisiren dewana*; 296-298, 307-309, 312-313, 315-318.)
- x 1987 Bajpai et al. (comp. w/ *Metaxytherium kachchense*; 22.)
- x 1987a Domning, D.P. (pop. acc.; 66-71.)
- Hydrodamalis gigas* (Zimmermann, 1780) Palmer, 1895
- 1742 SEE K. Yushin in Golder, F.A., 1922.
- 1742 SEE S. Khitrov in Golder, F.A., 1922.
- 1742 SEE Waxell, S.L.
- v *1751 Steller, G.W. (HG; Bering Is.; anatomy & natural history)
- 1754 SEE P. Yakovlev in Domning, D.P., 1978b.
- 1759 SEE S. Cherepanov in Domning, D.P., 1978b.
- xv *1778 Zimmermann, E.A.W. (distinguished from manatee; 253.)
- xv *1802 Sauer, M. (exterminated in 1768; 181.)
- xv 1868d Brandt, J.F. (preparation of new restoration; 457-458.)
- xv 1885 Stejneger, L. (Bering Is.; excavation of skeleton; 256-257.)
- xv 1889 Scammon, C.M. (gen. acc.; 582-585.)
- x *1895 Palmer, T.S. (n.comb.; 449.)
- xv *1899 Steller, G.W. (HG; Bering Is.; anatomy & natural history; 181-201.)
- x 1899 Stiles & Hassall (parasites; 108, 149, 163, 169.)
- x 1901 Elliott, D.G. (diagnosis; 5, pl. 2.)
- xv 1911 Anon. (photo of skull; 37.)
- xv *1922 Golder, F.A. (Bering Is.; observations by members of Bering expedition; 237-238, 279.)
- xv 1923 Pütter, A. (weight probably 2-3 tons; m221.)
- x *1925 Steller, G.W. (Bering Is.; hunting, anatomy, & natural history; vii, 139-140, 161, 180, 182, 226-237, 245.)
- xv 1927 Hopwood, A.T. (illustration of skeleton; 21.)
- xv 1928 Tolmachoff, I.P. (causes of extinction; 1137-1138.)
- x 1929 Birulia, A.A. (pelvis; 87-90.)
- x 1942 Scheffer, V.B. (in list of marine mammals; 46.)
- 1944 Andreyev, A.I.
- xv 1946a Goodwin, G.G. (pop. acc.; 56-61.)
- x 1951a Burton, M. (extinction; 178.)
- x 1952 Andreyev, A.I. (Bering Is.; hunting, 1758-59; 19.)
- xv 1964b Bertram & Bertram (possible survival; 313.)
- x *1965 Heptner, V.G. ("*Hydromalis*"; distr. & extermination; 91-93.)
- 1966 Heptner, V.G. (distr. & extermination)
- xv 1967 Edwards, W.E. (extermination by prehistoric man; m148.)
- 1967 Heptner & Naumov
- x *1967 Jones, R.E. (Pleist., Monterey Bay, California; 143.)
- x 1968 Rice & Scheffer (distr., 5-6; *H. stelleri* a synonym, 12.)
- xv 1969 Gibson, J.R. (hunting & use by Russians; 29-30, 48, 51-52, 54.)
- 1970b Anon. (extermination)
- x 1970 Shikama & Domning (comp. w/ Japanese *Hydrodamalis* sp.; 390, 393, 395.)
- x 1971a Domning, D.P. (m110.)
- x 1971b Domning, D.P. (evolution; 217-220.)
- x 1971 Gard & Szabo (Pleist., Amchitka, Alaska; 577.)
- xv 1971 Hall, E.S., Jr. (at archeological site, Kangiguksuk, Alaska; 23, 34, 52.)
- x 1972a Domning, D.P. (evolution; m147.)
- x 1972b Domning, D.P. (hunting, extermination, & origin of North Pacific aboriginal whaling; 187-189.)
- x 1972 Gard et al. (Pleist., Amchitka, Alaska; 867-868.)
- x 1972 Scheffer, V.B. (size & weight; 912-913.)
- x 1973 Bertram & Bertram (extermination; 304-305, 325.)
- x 1973 Scheffer, V.B. (gen. acc. & recent research; 64-67.)
- x 1973 Vorontsov, N.N. (extermination by North Pacific aborigines; 124.)
- x 1974 Addicott & Greene (zoogeographic significance of Monterey Bay occurrence; 251-252.)

- x 1975 Dayton, P.K. (ecological interrelationships with kelp & sea otters; 236-237.)
- x 1975 Domning & Frye (injuries & pathology; 2-3.)
- x 1975b Domning, D.P. (feeding ecology & evolution; 824.)
- xv 1975 Szabo & Gard (Pleist., Amchitka, Alaska; 459.)
- x 1976 Fleischer, G. (anchoring of stapes; 305, 308-310.)
- x 1977b Domning, D.P. (phyletic position & role in North Pacific paleoecology; 352, 354-359.)
- 1977 Gordon & Gordon
- 1977 Malukovich, V.
- x *1977 Whitmore & Gard (Pleist., Amchitka, Alaska; 1-19, pls. 1-8.)
- x *1978b Domning, D.P. (morphology, evolution, extermination; 2, 19, 23, 26-33, 35-37, 40, 47, 51, 55, 57-61, 67, 69-71, 75-77, 80-90, 92-106, 112, 115-146, 161-165, pls. 5-9, 13-15, 17.)
- xv 1978 McClung, R.M. (pop. acc.; 46-47.)
- x 1978 Simenstad et al. (former ecological role in Aleutians; m409.)
- x 1979 Takahashi et al. (m228.)
- x 1980 Haley, D. (pop. acc.; artist's reconstruction; 7-11.)
- x 1980 Inuzuka et al. (m640.)
- x 1980 Kurtén & Anderson (Pleist., North America; 340-341.)
- x 1981 Best, R.C. (diet & nutrition; 3-4, 15-17.)
- x 1981 Sprent, J.F.A. (ascaridoid parasites; 319, 321.)
- x 1982 Domning, Rice et al. (former distr.; 305.)
- 1982 Forsten & Youngman (gen. acc.)
- xv 1982 Thiel, R. (pop. acc.; 7.)
- x 1982 Warhol, P. (pop. acc.; artist's reconstruction; 10-12.)
- x 1983 Gallivan et al. (thermoregulation; 255, 260.)
- x 1983 Takahashi et al. (comp. w/ Yamagata *Dusisiren*; 13, 15-16.)
- x 1984 Domning & Deméré (comp. w/ *H. cuestas*; 169, 176, 178-180, 183, 186.)
- x 1984a Domning, D.P. (skeleton from Bering Is.; comment on V. Rich [1983]; 500.)
- x 1984 McNally, R. (pop. acc.; 168-172.)
- x 1984 Rainey et al. (molecular systematics; 586-587.)
- x 1985 Laughlin, W.S. (Bering Is.; significance for Beringian anthropology; 780-781, 783.)
- x 1985 Lowenstein, J.M. (immunology & phylogeny; 543-544.)
- 1985 Shinohara et al.
- xv 1986 Bruemmer, F. (pop. acc.; artist's reconstruction; 24.)
- 1986 Kamiya, T.
- x 1986 Takahashi et al. (comp. w/ *Dusisiren dewana*; 296-298, 302, 304, 316-318.)
- x 1987a Domning, D.P. (evolution; pop. acc.; 64, 66-71.)
- x 1988 Estes & Steinberg (evolution & availability of kelp; 21-22.)
- x 1988 Fischer, M.S. (malleus & tympanic membrane; m369.)
- x 1988 Flannery, T. (partial skeleton in Australian Museum, Sydney; 462.)
- 1988 Kamiya, T.
- x 1989 Estes & Steinberg (evolution & feeding on kelp; 58-59.)
- v 1989 Ijiri & Inuzuka
- 1989b Kamiya, T.
- x 1990 O'Shea & Reep (encephalization quotients & life history; 534-543.)
- 1992 Aubert, A.
- x 1993a Domning, D.P. (extinction; 2.)
- x 1993 Savinetsky, A.B. (Bering Is.; radiocarbon dates; 403-405.)
- Hydrodamalis spissa* Furusawa, 1988 (= *Hydrodamalis cuestas*)
- v 1982 Furusawa & Kimura
- v 1984 Takikawa Investigation Group
- xv 1986 Takahashi et al. ("*H. cuestas* (?)"; age & species assignment; 298, 317-318.)
- *1988 Furusawa, H. ("*H. spissus*," n.sp.; Plioc., Hokkaido, Japan)
- 1989 Furusawa, H.
- 1990 Furusawa et al.
- 1990 Furusawa, H.
- Hydrodamalis stelleri* Retzius, 1794 (= *Hydrodamalis gigas*)
- *1794 Retzius, A.J. (n.gen.n.sp.)
- x 1895 Palmer, T.S. (syn. of *H. gigas*; 449.)
- x 1899 Stiles & Hassall (parasites; 99, 100.)
- x 1923 Sowerby, A. de C. (gen. acc.; 135-137.)
- x 1924c Petit, G. (kidney; 2199-2200.)
- x 1925 Kellogg, R. (comp. w/ *Metaxytherium jordani*; 57-58, 61-67.)
- x 1943 Kaltenmark, J. (phylogeny; 20-21.)
- 1950 Gromova, V.I. (key to bones)
- x 1954b Friant, M. (brain; 129, 134-135.)
- x *1958 Grekov, V.I. (former distr.; 95-100.)
- 1964b Anon.
- 1964c Anon.
- x 1965 Long, A. ("*H. stelleri*"; Pleist., Monterey Bay, California; carbon-14 date; 254.)
- x 1966 Kellogg, R. (m66.)
- x 1967 Browder, J. (m5.)
- x 1968a Bertram & Bertram (extinction; 386.)
- x 1968 Rice & Scheffer (syn. of *H. gigas*; 12.)
- 1969 McClung, R.M.
- x 1971 Ginsburg & Janvier (comp. w/ *Metaxytherium medium*, 186; relationships, 188-189.)
- x 1973 Fuchs, H. (comp. w/ Romanian sir.; 72.)
- x 1976 Campbell, H.W. (m9.)

- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 74, 92.)
- x 1981c Domning, D.P. (type species of *Hydrodamalis*; 130–131.)
- x 1982 Kleinschmidt, A. (syn. of *Rhytina gigas*; 383.)
- 1983 Sylvestre, J.-P. (gen. acc.)
- x 1989 Maluf, N.S.R. (kidney, comp. w/ TM & DD; 282.)
- Hydropithecus simia* (Illiger, 1815) Gloger, 1842 (Steller's "sea-ape"; nomen nudum)
- *1842 Gloger, C. (n.comb.)
- Immunology
- x 1897 Anon. (*Trichechus*; in capt., England; 36.)
- x 1977 Marsh et al. (DD; stomach & duodenum histology; 291–292.)
- x 1985 Lowenstein, J.M. (immunology & phylogeny; 543–544.)
- India (SEE ALSO: Indian Ocean)
- 1830–
- 1835 Gray, J.E. (DD)
- x 1833 Robison, J. (DD; preserved specimen; 100–101.)
- 1840 Grant, C.W.
- 1867 Jerdon, T.C. (DD)
- 1872 Wynne, A.B.
- 1876 Blanford, W.T.
- 1891 Blanford, W.T. (DD)
- x 1895 Phipson, H.M. (DD; Gulf of Cutch; 490.)
- x 1895 Thurston, E. (DD; m98–99.)
- x 1905 Linstow, O.v. (DD; nematode *Ascaris halicoris*; m258.)
- x *1906 Annandale, N. (DD; Gulf of Mannar; 238–243.)
- 1927 Raj, S.
- x 1928 Prater, S.H. (DD; 85–86.)
- x 1929 Prater, S.H. (DD; Gulf of Mannar; 987.)
- 1942 Moses, S.T.
- x 1959 Jones, S. (DD; in capt.; 198–202.)
- x 1960 Mani, S.B. (DD; Saurashtra coast; 216–217.)
- x *1961 Jonklaas, R. (DD; 1–8.)
- x 1961 Santapau & Abdulali (DD; Bombay; erroneous report corrected; 796.)
- x *1961 Silas, E.G. (DD; Saurashtra coast; 263–266.)
- x 1963 Lal Mohan, R.S. (DD; Gulf of Cutch; 152.)
- 1964 Silas, E.G.
- x *1966 Thomas, D. (DD; Rameswaram; natural history, hunting; 80–82.)
- x *1967 Jones, S. (DD; status; 215–220.)
- x 1971 Sharma & Gupta (DD; trematode *Paracochleo-trema indicum*; 285.)
- x 1973 Bertram & Bertram (DD; distr.; 308.)
- x *1974 James, P.S.B.R. (DD; osteological variation; 173–184.)
- *1975 Sahni & Mishra
- x 1976 Whitaker, Z. (DD; hunting, econ. use; 6.)
- x 1977a Anon. (DD; Tamil Nadu; meat sold; 439.)
- 1977 Hussainy, H.S.H. (DD)
- x 1977 Nair & Lal Mohan (DD; in capt.; sound recordings; 277.)
- x 1977 Savage & Tewari (*Metaxytherium*, Mioc.; indeterminate sir., Eoc.; Kutch; 216–218.)
- 1977 Tewari et al. (Gaj Formation, Kutch)
- 1978 Bhaskar, S. (DD; Gulf of Kutch)
- 1978 Satsangi & Trivedy
- 1979 Sahni, A. (Eoc.)
- *1980 Jones, S.
- x 1980 Lal Mohan, R.S. (DD; Gulf of Mannar & Palk Bay; seasonal occurrence, sex ratio; 391–397.)
- x *1980 Sahni & Kumar (*Ishatherium subathuensis*, n.gen.n.sp.; Early Eoc., Simla Hills; 132–135.)
- 1980 Sahni & Mitra
- x 1980 Sahni et al. (supposed sir. [*Ishatherium*]; Early Eoc., Simla Hills; 270–271.)
- x 1981 Jones, S. (DD; distr. & status; 45–52.)
- x 1981 Sprent, J.F.A. (DD; nematode *Paradujardinia*; 309.)
- 1983 Jones, S.
- 1983 Neumayer, E. (DD; depicted in rock paintings)
- 1986 Bhaskar, S. (DD)
- x *1987 Bajpai et al. (*Metaxytherium kachchhense*, n.sp.; Early Mioc.; 20–25.)
- 1988 James, P.S.B.R. (DD; conservation)
- 1988 Silas & Fernando (DD)
- 1989 Krishna Pillai et al. (DD; Gulf of Mannar)
- 1990 Venkateswarlu, T. (DD)
- x *1991 Frazier & Mundkur (DD; Gulf of Kutch; anatomy, status; 368–379.)
- 1991 Lal Mohan, R.S. (DD)
- x 1993a Anon. (DD; Palk Bay & Gulf of Mannar; conservation; 42.)
- x 1993 Gingerich et al. ("*Protosiren*" of Sahni & Mishra, 1975, referred to Cetacea; 410–411.)
- 1993 Lal Mohan, R.S. (DD)
- Indian Ocean (SEE ALSO: Africa; Asia; Australia; East Indies; India; Madagascar; Red Sea; Sri Lanka)
- 1902 Miller, G.S. (Andaman Islands)
- x 1905 Annandale, N. (DD; Andaman Islands; m241.)
- x 1929 Prater, S.H. (DD; Andaman Islands; 987.)
- x 1933b Mortensen, T. (DD; Rodriguez; Leguat's account; 23–26.)
- x 1934b Mortensen, T. (DD; Rodriguez; Leguat's account; 71–72, 76.)
- x 1940 Pocock, R.I. (DD; Indian Ocean & adjacent areas; geographic variation in skeleton; 329–345.)
- x 1960 Williams, J.H. (DD; Persian Gulf & North Andaman Is.; 9–12.)
- 1970 Snow, D.W. (DD)

- x *1972 Stoddart, D.R. (DD; former distr., western Indian Ocean; 205–215.)
- x 1973 Bertram & Bertram (DD; distr.; 307–308.)
- x 1973 Gruchet, H. (DD; Mozambique Channel)
- x 1977 Savage & Tewari (fossil sirs.; 216–218.)
- x 1978 Abdulali, H. (DD; Great Nicobar Is.; 749.)
- x 1979 Nishiwaki et al. (DD; distr.; 133–141.)
- x 1981 Jones, S. (DD; Andaman & Nicobar Islands; 46.)
- x 1981 Sprent, J.F.A. (DD; India & Comoro Islands; nematode *Paradujardinia halicoris*; 309–310.)
- 1984 Hanneberg, P. (DD; Seychelles)
- 1984b Nishiwaki, M. (DD)
- 1988 James, D.B. (DD; Andaman & Nicobar Islands)
- Individual Variation (SEE ALSO: Skeleton)
- x 1809a Cuvier, G. (*Trichechus*; fetus, nails; 284.)
- x 1820b Home, E. (DD; jejunum; 318.)
- x *1838 Owen, R. (DD; viscera, m29–31, 34, m37; skeleton, 40; teeth, 43; measurements, 44–45.)
- x 1883 Dybowski, B. (HG; skull; sexual dimorphism; 73.)
- x *1883 Stejneger, L. (HG; skull; 79–83.)
- x 1887b Baur, G. (supernumerary phalanges; 840.)
- x 1904 Freund, L. (DD; manus; 365–394.)
- x 1914a Freund, L. (DD; sternum, pelvis; 367–373.)
- x 1928 Prater, S.H. (DD; manus; 95.)
- 1933 Bahrđt, H.J.
- x *1934 Hatt, R.T. (TI, TM, TS; skeleton; 539–554, 561.)
- D 1940 Ijiri, S.
- x 1940 Pocock, R.I. (DD; tusks, 331–339; skull, 340–342; scapula, 341, 343–345.)
- x 1957 Gohar, H.A.F. (DD; Red Sea; tail fluke; 10.)
- x 1966 Kellogg, R. (hydrodamalines; nasals; m73.)
- x 1969 Robineau, D. (DD; temporal & ear region; 6.)
- x *1974 James, P.S.B.R. (DD; India; skeleton; 173–184.)
- x *1974 Spain & Heinsohn (DD; Queensland; skull allometry; 249–257.)
- x *1975 Spain & Heinsohn (DD; Queensland; body allometry; 159–168.)
- x *1976 Spain et al. (DD; Queensland; skull; 491–497.)
- x 1978b Domning, D.P. (HG; supposed sexual dimorphism; 99–100.)
- x 1981 Spain & Marsh (DD; Queensland; skull; geographic variation, sexual dimorphism; 143–161.)
- x *1986 Domning & Hayek (TI, TM, TS; 87–144.)
- x 1989a Preen, A. (DD; skulls; 54–55, 70–71.)
- x 1991a Domning, D.P. (DD; pelvic bones; sexual & ontogenetic variation; 311–316.)
- x 1992 Roth, V.L. (TI; tooth size, comp. w/ elephants; 194–195, 197.)
- Indosiren* von Koenigswald, 1952
- x *1952 Koenigswald, G.H.R.v. (n.gen.; Mioc., Java; 610–612.)
- x 1977 Savage & Tewari (considered “sirenian indeterminate”; 217.)
- Indosiren javanensis* von Koenigswald, 1952
- x *1952 Koenigswald, G.H.R.v. (n.gen.n.sp.; Mioc., Java; 610–612.)
- 1976 Reinhart, R.H. (review; 267–269.)
- Indosiren koenigswaldi* Sahni and Mishra, 1975
- *1975 Sahni & Mishra (n.sp.)
- x 1987 Bajpai et al. (comp. w/ *Metaxytherium kachchense*; 22–23.)
- Insect Control
- x 1967 MacLaren, J.P. (*Trichechus*; Panama; mosquito control; 388–393.)
- Integument
- x *1872a Murie, J. (TMM; skin, hair, fat; 131–134.)
- 1872b Murie, J. (HG; skin)
- x *1873 Lütken, C.F. (supposed HG skin fragment actually cetacean; 273–274.)
- x *1899 Steller, G.W. (HG; skin, hair, fat; 183–185, 188, 197, 200.)
- x 1906 Annandale, N. (DD; skin, hair, fat; 239.)
- x 1906c Dexler & Freund (DD; skin, 569; hair, 570–571.)
- 1915 Dosch, F.
- x 1924–
- 1925 Vosseler, J. (TI; length & spacing of body hairs, 172–173; horny epidermal fringe on tail, 213–215, pl. 6; shedding of epidermal cells, color & texture of epidermis, 215–217.)
- x *1925 Steller, G.W. (HG; skin, hair, fat; 230, 233–234.)
- 1929 Matthes, E. (skin thickness)
- x 1950 Mohr, E. (HG; skin fragment at Hamburg; 181–185.)
- 1956 Haffner, K.v. (HG)
- x *1957 Gohar, H.A.F. (DD; skin color & structure, 7–11; hair, 8, 10, 12–15, 18, 20, 22–23.)
- 1957 Haffner, K.v. (HG)
- x 1962 Sarkar & Mitra (DD; hide, hair; 93–94, 1 pl.)
- 1963 Bertram, G.C.L. (skin)
- 1968 Banfield, E.J. (DD; contraction of hide prevents bleeding from bullet wounds)
- 1974 Ling, J.K.
- x 1975 Spain & Heinsohn (DD; skin thickness; 162–163, 165, 167.)
- 1977 Ling, J.K. (vibrissae)
- x 1978b Domning, D.P. (HG; 130–132, 141–142.)
- x 1980 Denton et al. (DD; depigmented skin; 215.)
- x 1981 Kamiya & Yamasaki (DD; sinus hair; 193–197.)
- x 1986 Domning & Hayek (TI, TM, TS; skin texture & color, 90–92; nails, 91–92.)
- 1986 Sokolov, Chernova et al. (TMM)

- x 1987 Elias et al. (TM; lipids in epidermis; 161-177.)
- x *1991 Frazier & Mundkur (DD; thickness, weight, hair density, flipper callosities; 372-373.)
- x 1992 Kadel, J. (TML; Florida; "white" individual; 15-16.)
- Interspecific Interactions: SEE Community Ecology; Food; Food Plants; Natural Enemies; Parasites; Parasitology
- Ischyrotherium* Leidy, 1856 (Reptilia)
- x *1856a Leidy, J. (n.gen.; Nebraska; 89.)
- Ischyrotherium antiquum* Leidy, 1856 (Reptilia)
- x *1856a Leidy, J. ("*Ischyrotherium antiquus*," n.gen.n.sp.; Nebraska; 89.)
- x 1869 Leidy, J. (considered a reptile; 414.)
- 1882 Lepsius, G.R. (mistakenly considered syn. of *Prorastomus*; 185.)
- Ishatherium* Sahni and Kumar, 1980 (Proboscidea, Anthracobunidae)
- x *1980 Sahni & Kumar (n.gen.; Early Eoc., India; 132-135.)
- x 1982 Sereno, P.C. (m8.)
- x 1983 Sahni et al. (pelvis, comp. w/ *Protosiren*; 81.)
- Ishatherium subathuense* Sahni and Kumar, 1980 (Proboscidea, Anthracobunidae)
- x *1980 Sahni & Kumar ("*I. subathuensis*"; n.gen.n.sp.; Early Eoc., India; 132-135.)
- x 1982 Domning, Morgan & Ray ("*I. subathuensis*"; sir. affinities considered doubtful; 5, 55, 61.)
- x 1986 Domning et al. ("*I. subathuensis*"; ?syn. of *Anthracobune* sp.; m44.)
- x 1987 Bajpai et al. ("*I. subathuensis*"; m21.)
- x *1991 Kumar, K. ("*I. subathuensis*"; considered sir. & Ypresian in age; 234-237.)
- Italy
- 1827 Catullo, T.A.
- *1839 Bruno, G.D.
- *1872 Capellini, G.
- 1873 Zigno, A. de
- *1875a Zigno, A. de
- 1875c Zigno, A. de
- 1876 Lawley, R. (*Felsinootherium*)
- x 1877 Lawley, R. (*Felsinootherium Forestii*; Volterra; 341-342.)
- 1878 Capellini, G.
- x 1878a Zigno, A. de (review of fossil sirs. of Italy; 66-70.)
- *1878b Zigno, A. de
- 1878c Zigno, A. de
- 1882 Zigno, A. de
- *1886a Capellini, G. (*Metaxytherium lovisati*, n.sp.; Sardinia)
- 1886b Capellini, G. (Sardinia)
- x 1886 Portis, A. (*Felsinootherium* spp.; Plioc., Piemonte; 356-360.)
- 1887 Gaudry, A.
- x 1892 Lydekker, R. ("*Prorastoma veronense*"; 77-78.)
- x 1912 Issel, A. (*Felsinootherium subapenninum*; Plioc., Genova; 119.)
- 1924 Campana, D. del (Mioc., Catanzaro)
- x 1927 Hopwood, A.T. (*Metaxytherium*; Sicily; 18-19.)
- *1934b Sickenberg, O.
- 1957 Comaschi Caria, I. (Mioc., Sardinia)
- x 1966 Piccoli, G. (*Prototherium* cf. *veronense*; Late Eoc., Priabonian stratotype; 349-350.)
- 1969 Bartolomei, G. (*Prototherium*; Eoc., Vicenza)
- 1973 Mastroilli, V.I. (*Halitherium*; Olig., Savona)
- x 1974 Fondi & Pacini (*Metaxytherium forestii*; Plioc., Siena; 37, 48.)
- x 1977 Bizzarini et al. (*Prototherium veronense*; Late Eoc., Possagno; 1-15.)
- 1980 Altichieri, L.
- 1980 Azzaroli, A. (Plioc.)
- 1981 Borgia et al.
- x 1982 Azzaroli et al. (*Felsinootherium gervaisi*; Plioc., Val di Pugna; 56, 58.)
- x *1983 Bizzotto, B. (*Prototherium intermedium*, n.sp.; Late Eoc., Possagno; 95-99.)
- 1983 Carboni & Kotsakis (Mioc., Sardinia)
- 1985 Cigala-Fulgosi & Pilleri
- x 1986b Pilleri, G. (indeterminate sir.; Mioc., Pietra Lincea; 21-22, pl. 11.)
- x 1987 Canocchi, D. (*Metaxytherium gervaisi*; Early Plioc., Siena; 497-513.)
- x 1987 Domning & Thomas (*Metaxytherium forestii*; Plioc.; 208, 220-221.)
- 1987 Moncharmont Zei & Moncharmont (*Metaxytherium medium*; Late Mioc.)
- 1988 Vazzana, A.
- 1989 Pilleri & Cigala-Fulgosi
- Jamaica
- 1725 Sloane, H. (TMM)
- 1756 Browne, P. (TMM)
- x 1821b Home, E. (TMM; m390.)
- x 1851 Gosse, P.H. (TMM; 341-346, 348-349.)
- x *1855 Owen, R. (*Prorastomus sirenooides*, n.gen.n.sp.; Eoc.; 541.)
- x 1875a Owen, R. (*Prorastomus*; age of locality in doubt; 103.)
- x 1896 Neish, W.D. (TMM; 287-288.)
- x 1898 Hill, R.T. (TM; m199.)
- x 1910 Woodward, A.S. (Eoc. sir.; m470.)
- x 1928 Cundall, F. (TMM; m139, 143.)

- x 1978 Powell, J.A., Jr. (TMM; eating fish; 442.)
- x 1982 Fairbairn & Haynes (TMM; aerial surveys; 289–293.)
- x 1982 Wing & Reitz (TMM; at archeological site; m16.)
- 1986 Shaul & Haynes
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 573–574, 600.)
- x *1990 Donovan et al. (*Prorastomus sirenooides*; Middle Eoc., Manchester Parish; new specimen; 660–662.)
- x 1993 Domning & Clark (*Prorastomus sirenooides*; 414.)
- Japan (SEE ALSO: Sakhalin)
- 1881 Matsubara, S. (DD)
- xD 1902a Osborn, H.F. (*Desmostylus*; discussion of original Japanese discovery; 713–714.)
- xD *1902 Yoshiwara & Iwasaki (*Desmostylus*; Togari; 1–2.)
- xD 1911 Merriam, J.C. (*Desmostylus*; 406.)
- x 1932 Hirasaka, K. (DD; 3.)
- x 1934 Hirasaka, K. (DD; 4221.)
- xD *1937b Nagao, T. (*Desmostylella typica*, n.gen.n.sp.; Mioc., Honshu; 82–85.)
- xD 1937c Nagao, T. (*Desmostylus* cf. *minor*; Hokkaido; 110–113.)
- D 1944 Naora, N.
- xD 1951 DEREK (“*Desmostylus*” [actually *Paleoparadoxia*]; Izumi; discovery & collection; 414.)
- xD 1952 DEREK (*Desmostylus*, Togari; *Paleoparadoxia*, Izumi; recollection & stratigraphy of localities; 144.)
- D 1953 Arai, J.
- xD 1963 Mitchell & Repenning (desmostylians; chronological & geographic range; 3–5, 10–12, 15–16.)
- D *1966a Shikama, T.
- D *1966c Shikama, T.
- x 1970 Shikama & Domning (*Hydrodamalis* sp.; Late Plioc., Honshu; 390–394.)
- xD *1972 Ikebe et al. (desmostylians; stratigraphic range; 44–45, 47–48, 65–66.)
- D 1973 Akiyama & Kumano
- xD 1973 Shikama et al. (sirs. & desmostylians; stratigraphic range; 138, 140–141.)
- D 1974 Kozawa, Y.
- D 1975 Kamei & Okazaki
- 1976 Hojo, T. (DD; Okinawa; archeological site)
- D 1977 Inuzuka et al.
- D 1977 Inuzuka, N.
- xD 1977 Kamei & Okazaki (*Desmostylus*, *Paleoparadoxia*; stratigraphic range Middle-Late Mioc.; 354.)
- D 1977 Kimura, M.
- D 1977a Okazaki, Y.
- D 1977b Okazaki, Y.
- D 1977 Sato & Ijiri (*Paleoparadoxia tabatai*)
- D 1978 Fujimoto & Sakamoto (*Paleoparadoxia*)
- D 1978 Hasegawa, Y.
- D 1978 Itoigawa & Nakamura
- D 1978 Kimura et al.
- D 1978 Kimura, M.
- x 1979 Kamiya et al. (DD; Okinawa; organ weights; 129–131.)
- D 1979 Kimura & Takaku
- x 1979 Takahashi et al. (*Dusisiren* n.sp.; Late Mioc., Yamagata; 228.)
- x 1980 Blair, D. (DD; Okinawa; trematode *Indosolenorchis hirudinaceus*; 512–513.)
- D 1980 Inuzuka & Murai (*Paleoparadoxia*)
- xD 1980 Inuzuka et al. (supposed *Dugong* [actually desmostylian?]; Middle Mioc., Hokkaido; 639–641.)
- x 1981a Blair, D. (DD; Okinawa; parasitic flukes; 15, 36, 39.)
- D 1981 Kimura, M. (Hokkaido)
- D 1981 Shibata et al.
- 1981 Takahashi, S. (*Dusisiren* n.sp.)
- D 1981 Yamaguchi et al.
- D 1982 Abe et al. (*Desmostylus*; Mioc., Shimane)
- x 1982 Aizu Fossil Research Group (*Dusisiren* cf. *jordani*; Late Mioc., Fukushima; 282–284.)
- 1982 Furusawa & Kimura
- 1982 Hasegawa & Nohara (DD)
- D 1982a Kimura, M. (*Desmostylus*)
- 1982b Kimura, M.
- x 1983 Kimura et al. (*Hydrodamalis*; Pleist., Hokkaido; 162–177, pls. 1–4.)
- D 1983 Sakamoto, O.
- x *1983 Takahashi et al. (*Dusisiren* n.sp.; Late Mioc., Yamagata; report on excavation; 1–76.)
- D 1984 Akamatsu, M.
- D 1984 Chinzei, K.
- 1984 Furusawa, H.
- D 1984 Goto & Kuga
- D 1984 Itoigawa, J.
- D 1984 Kamei, T.
- D 1984 Kaseno, Y.
- D 1984 Oishi & Kawakami
- D 1984 Taguchi, E.
- D 1984 Takayasu & Nakamura
- *1984 Takikawa Investigation Group
- D 1984 Yamanoi, T.
- D 1984 Yoshida, K.
- D 1985 Inuzuka et al. (*Desmostylus*; metatarsus)
- 1985 Shinohara et al. (HG; Pleist., Hokkaido)
- D 1986 Inuzuka & Karasawa (*Paleoparadoxia*)
- D 1986a Suzuki et al. (*Paleoparadoxia*)
- D 1986b Suzuki et al. (*Paleoparadoxia*)
- x *1986 Takahashi et al. (*Dusisiren dewana*, n.sp., Late Mioc., Yamagata, 296–300; other sirs., 317–318.)

- 1987 Furusawa, H.
D 1987 Hasegawa & Tanaka
D 1987 Horikawa et al.
D 1987a Inuzuka, N.
D 1987 Kamiya, H.
D 1987 Kohno, N.
1987 Koizumi, A.
D 1987 Kokufuda, Y.
D 1987 Kuga et al.
D 1987 Ogasawara & Morita (*Paleoparadoxia*; paleoecology)
D 1987 Oishi, M.
1987 Okazaki, Y.
D 1987 Sakamoto, O.
D 1987 Takeyama & Azuma
D 1988 Hasegawa et al.
x 1988 Hasegawa, H. (DD; Okinawa; nematode *Paradujardinia halicoris*; 23–25.)
D 1988 Hasegawa, Y.
D 1988c Inuzuka, N.
D 1988d Inuzuka, N.
D 1988a Kamiya, H.
1988 Kobayashi & Aizu Fossil Res. Group
D 1988 Kobayashi et al.
D 1988 Kohno & Hasegawa
D 1988 Kozawa et al.
D 1988 Matsuuda, N.
1988 Miyazaki et al.
1988 Oishi, M.
xD 1988 Saito et al. (*Behemotops* sp.; Late Olig., Hokkaido; age; 269–273.)
D 1988 Sakamoto, O.
D 1988 Takeyama & Azuma
D 1989a Inuzuka, N. (*Behemotops*; Hokkaido)
D 1989 Kamei et al. (*Paleoparadoxia*; Tsuyama)
1989b Kamiya, T.
D 1989 Satoh et al.
1990 Furusawa et al. (*Hydrodamalis spissa*)
xD 1990 Ogasawara & Morita (*Paleoparadoxia*; paleoecology; 29–30.)
D 1990 Oishi et al. (*Desmostylus*; Kintaichi)
D 1992 Kaneko & Goto (*Paleoparadoxia tabatai*; Toyama Prefecture)
D 1992 Kaneko & Inuzuka (*Paleoparadoxia tabatai*, *Desmostylus japonicus*; Toyama Prefecture)
1992 Kohno & Takaizumi (Halitheriinae indet.; Late Mioc., Sendai Prefecture)
1993 Kobayashi et al. (Annaka)
D *Kronokotherium* Pronina, 1957 (= *Desmostylus*)
D *1957 Pronina, I.G. (n.gen.)
xD 1963 Mitchell & Repenning (syn. of *Desmostylus*; m4, m10.)
D 1966c Shikama, T.
xD*1971 Dubrovo & Sinel'nikova (syn. of *Desmostylus*; 670.)
xD 1982 Kleinschmidt, A. ("*Kronotherium*"; m378–379.)
xD 1982 Reinhart, R.H. (syn. of *Desmostylus*; 551, 553.)
xD 1991 Clark, J.M. (syn. of *Desmostylus*; m493.)
D *Kronokotherium brevimaxillare* Pronina, 1957 (= *Desmostylus hesperus*)
D *1957 Pronina, I.G. (n.gen.n.sp.)
D 1966c Shikama, T.
xD*1971 Dubrovo & Sinel'nikova (synonymized with *Desmostylus hesperus*; 670.)
xD 1982 Reinhart, R.H. (?syn. of *Desmostylus hesperus japonicus*; 551, 553.)
Legends: SEE Mermaid Legend; Religious, Superstitious, or Ornamental Use or Observance
Legislation, Protective: SEE Conservation
Locomotion (SEE ALSO: Respiration and Diving)
x *1878 Brown, A.E. (TMM; on land; experiment; 295–296.)
x 1881 Crane, A. (*Trichechus*; in capt.; 457–460.)
x *1881 Flower, W.H. (sirs.; on land; 453–456.)
1887 Noack, T. (TS; on land)
1887 Shufeldt, R.W. (TMM; Mexico; partly out of water)
x *1899 Steller, G.W. (HG; 188–189, 197–198.)
x 1904 Freund, L. (anatomical modifications; 383–384, 395.)
x *1906b Dexler & Freund (DD, breathing & swimming, 50–52, 66–67, feeding trails, 56–57, 67; *Trichechus*, 67–68; HG, m68.)
x 1924e Petit, G. (*Trichechus*; on land; m295.)
x 1924–
1925 Vosseler, J. (TI; in capt.; swimming & head movements, 222–224; on land, 225.)
x 1925 Troxell, E.L. (chevron bones; m613.)
x 1928 Prater, S.H. (DD; 95–96.)
x 1935 Allen, G.M. (DD; on land; 81.)
x 1938 Devillers, C. (TI; in capt.; 87–88.)
x 1939 Coates, C.W. (emaciated TI; in capt.; floating & swimming; 141, 144–145, 147.)
x 1948 Bessac & Villiers (TS; crossing earthen dams during migration; 188.)
x 1951b Moore, J.C. (TML; facing current, 30; resting posture, 30–31.)
x 1955 MacMillan, L. (DD; Australia; swimming, 18–19; on land, 18.)
x 1956 Moore, J.C. (TML; calf, 17; adult, 20–23.)
x 1957 Cadenat, J. (TS; Senegal; on land; 1369.)
x 1957 Moore, J.C. (TML; calf, & on land; 138.)
x 1959 Jones, S. (DD; in capt.; use of flippers; 201.)

- x *1961 Jonklaas, R. (DD; 3.)
- x 1961 Silas, E.G. (DD; in capt., India; use of flippers; 264-265.)
- x *1964a Bertram & Bertram (*Trichechus*; swimming, 116-117; on land, 117.)
- x 1964 Moore, J.C. (TML; 7-8.)
- x *1965 Lluch B., D. (TMM; Mexico; on land; 417.)
- x 1966 Jarman, P.J. (DD; Kenya; 84.)
- x 1966 Kinzer, J. (TS; swimming & on land; 50.)
- x 1967 Aung, S.H. (DD; in capt.; swimming; 221.)
- x 1967 Jones, S. (DD; in capt.; on land; 219.)
- x *1967 Kenny, R. (DD; breathing & swimming; 372-373.)
- x 1967 Oke, V.R. (DD; in capt.; swimming; 220-221.)
- x 1968 Charnock-Wilson, J. (TMM; 293; on land, 294.)
- x 1969 Hartman, D.S. (TML; swimming; speed "about 20 mph"; 349-350.)
- x 1969 Herald, E.S. (*Trichechus*; in capt.; swimming backward; 29-30.)
- 1969 Tweedie, M.
- x 1972 Boorer, M.K. (TM; in capt.; swimming clockwise; m165.)
- x 1974b Dekker, D. (TMM; Suriname; swimming with "head & shoulders above water"; 2.)
- x 1976 Heinsohn, Spain & Anderson (DD; Australia; traveling at surface; calves with ?mothers; 22-23.)
- x 1976 Reynolds, J.E., III (TML; "body-surfing"; 211.)
- x 1976 Tas'an (DD; use of flippers on bottom; 5.)
- x 1977a Domning, D.P. (DD; swimming & forelimb muscles; 28-31.)
- x 1977b Domning, D.P. (evolution, in North Pacific sirs.; 353-361.)
- x 1978 Anderson & Birtles (DD; Queensland; facing current, 13; flippers not used on bottom, 19-20.)
- x 1978a Domning, D.P. (TI; forelimb muscles; 69-71.)
- x 1978b Domning, D.P. (hydrodamalines; 121-129, 131, 141-142.)
- x 1978 Marsh et al. (DD; swimming speed; 164.)
- x *1979 Anderson, P.K. (DD; "cocking" flukes for acceleration, 114-115; use of flippers in braking, 114; head movements, 115, 122; rostral disc compressed laterally when swimming, 116; swimming, 120-124; ?hydrodynamic assistance to calves, 130.)
- x *1979 Hartman, D.S. (TML; Florida; swimming against currents, 39-40; swimming & use of flippers, 64-72, 75-76.)
- x 1981b Anderson, P.K. (DD; swimming speed, 94-95; calves swimming above mothers' backs, 101-103.)
- x 1981 Marsh et al. (DD; swimming speed 10-12 knots; 259.)
- x 1981 Reynolds, J.E., III (TML; Florida; feeding more than half out of water, 237, 240; climbing barriers, 235-236, 238-239.)
- 1982b Anderson, P.K. (DD; Australia; tail stroke rate, turning, swimming in wave surges; 92.)
- x 1982 Barnett & Johns (DD; Queensland; swimming; 522.)
- x 1982 Kleinschmidt, A. (evolution of sir. locomotion; 370-377.)
- D *1984b Inuzuka, N. (desmostylians reconstructed as "herpetiform" mammals)
- D 1985 Halstead, L.B.
- D 1985 Inuzuka, N.
- x 1985 Rowlatt & Marsh (DD, TM; comparative heart morphology & swimming stamina; 104.)
- 1986 Sokolov, Pershin et al. (TM)
- x 1989a Marsh, H. (DD; Australia; rolling across mudflats; 79.)
- xD 1990 Repenning & Packard (*Paleoparadoxia*; California; 201-203.)
- x *1991 Domning & de Buffrénil (swimming & hydrostasis; 332-334, 359.)
- *1991 Frey, R. (testicondy & locomotion)
- Lophiodolodus* Stirton, 1947 (*Mammalia incertae sedis*)
- x 1956 McKenna, M.C. (possibly a sir.; m739.)
- x 1980 McKenna, M.C. (possibly a sir.; m49, m66.)
- x 1982b Domning, D.P. (probably not a sir.; 600.)
- Louisiana
- x 1884b True, F.W. (TM; m114.)
- x *1941a Gunter, G. (TML; 60-61.)
- x 1941b Gunter, G. (TML; 13.)
- x 1943 Lowery, G.H., Jr. (TML; 253-254.)
- 1974 Lowery, G.H., Jr. (TM)
- x 1975d Anon. (TM; near Lake Pontchartrain; 20.)
- x 1982b Domning, D.P. (*Trichechus* sp.; Late Pleist., Jefferson Davis Par.; 605.)
- x 1984 Powell & Rathbun (TM; 2, 6-7.)
- x 1988a O'Shea, T.J. (TM; 187, 199.)
- x 1990 Rathbun et al. (TM; 30.)
- Lymphatic System: SEE Circulatory System
- Madagascar
- 1658 Flacourt, E. de
- 1902 Moriceau (DD; hunting)
- 1915 Kaudern, W.
- 1921 Gruvel, A.
- x 1922 Dandouau, A. (?DD fat as remedy; 119.)
- 1922 Gruvel, A.
- x *1923 Petit, G. (DD; 75-83.)
- x *1924 Dandouau, A. (DD; hunting; 151-153.)
- x *1924a Petit, G. (DD; distr. & food; 125-127.)

- x 1925 Monod, T.
 1925c Petit, G. (DD)
 1926 Petit, G. (DD)
- x 1927 Collignon & Cottreau (*Halitherium* sp.; Mioc.; 138, 164–165, 169.)
 1927a Petit, G. (DD)
- x *1927b Petit, G. (DD; hunting; 246–250.)
 1928 Grandidier & Grandidier
 1937 Petit, G. (DD)
 1949 Poisson, H.
- x 1978c Domning, D.P. (significance of “*Halitherium*” occurrence; 576.)
- Malta
- x 1866 Adams, A.L. (*Halitherium*; 595–596.)
 x 1868 Falconer, H. (*Halitherium*; 304.)
 1870 Adams, A.L. (*Halitherium*)
 x 1875a Owen, R. (*Halitherium*; 104–105.)
 x *1879 Adams, A.L. (*Halitherium*; 525–527, pl. 25.)
- Manatee: SEE *Trichechus* and synonyms
- Manatherium* Hartlaub, 1886 (= *Halitherium*)
- x *1886b Hartlaub, C. (n.gen.; Olig., Belgium; 369–378.)
 *1929a Sickenberg, O.
 x 1932a Simpson, G.G. (comp. w/ other sirs.; 424, 474, 495, 499.)
 x 1941 Kretzoi, M. (comp. w/ *Sirenavus*, 149; in classification, 152–154, pl. 6.)
 x 1945 Simpson, G.G. (syn. of *Halitherium*; 135.)
 x 1978c Domning, D.P. (syn. of *Halitherium*; m576.)
- Manatherium delheidi* Hartlaub, 1886 (= *Halitherium schinzii*)
- x *1886b Hartlaub, C. (n.gen.n.sp.; Olig., Belgium; 369–378.)
 x 1887 Flot, L. (review; 137.)
 x 1889 Lefèvre, T. (syn. of *Metaxytherium guettardi*; 200.)
 *1929a Sickenberg, O.
 x 1941 Kretzoi, M. (m147, m156.)
 x 1942b Kaltenmark, J. (m107.)
 x 1951 Kretzoi, M. (m439, m441.)
 x 1980 Tobien, H. (Mainz Basin, Germany; stratigraphic occurrence; 209.)
- Manati* Steller, 1774 (= *Hydrodamalis*)
- x *1774 Steller, G.W. (n.gen. [used uninomially]; distr.; 97.)
 x 1780 Zimmermann, E.A.W. (in classification; 425–426.)
 1801 Bechstein, G.
 x 1902 Allen, J.A. (*Manati* Zimmermann “of even date with *Manatus* Storr”; 22.)
 x 1961 Cabrera, A. (syn. of *Trichechus*; 309.)
- 1978b Domning, D.P. (syn. of *Hydrodamalis*; 74.)
 x *1981c Domning, D.P. (suppression proposed; 130–132.)
 x *1985 Melville, R.V. (name suppressed; 175–176.)
- Manati balaenurus* Boddaert, 1785 (= *Hydrodamalis gigas*)
- *1785 Boddaert, P. (n.sp.)
 x 1883 Stejneger, L. (syn. of *Rytina gigas*; m78, m86.)
 x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 92.)
 x 1981c Domning, D.P. (syn. of *Hydrodamalis gigas*; 130–131.)
- Manati clusii* Pennant, 1793 (= *Trichechus manatus*)
- *1793 Pennant, T. (n.sp.)
- Manati gigas* Zimmermann, 1780 (= *Hydrodamalis gigas*)
- x *1780 Zimmermann, E.A.W. (n.sp.; 426.)
 x 1883 Stejneger, L. (priority of name; m78.)
 x 1902 Allen, J.A. (“at present recognized in nomenclature”; 22.)
 x 1923 Sowerby, A. de C. (syn. of *Rhytina gigas*; m136.)
 x 1924 Thomas et al. (type species of *Rhytina*; m347.)
 x 1950 Mohr, E. (quotes Zimmermann’s description; 184.)
 x 1951 Kleinschmidt, A. (syn. of *Rhytina gigas*; m292.)
 x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 75, 92.)
 x 1981c Domning, D.P. (syn. of *Hydrodamalis gigas*; 130–132.)
 x 1982 Kleinschmidt, A. (syn. of *Rhytina gigas*; 383.)
 x *1985 Melville, R.V. (species name placed on Official List of Specific Names; 175–176.)
- Manati trichechus* Boddaert, 1785 (= *Trichechus manatus*, in part; *Trichechus senegalensis*, in part)
- *1785 Boddaert, P. (n.sp.)
 x 1934 Hatt, R.T. (applied to both TM & TS; 535, 537.)
 x 1961 Cabrera, A. (syn. of *Trichechus m. manatus*, in part; 310.)
- Manatida Brandt, 1868 (family; = Trichechidae)
- *1868a Brandt, J.F. (n.fam.)
 x 1872a Gill, T. (syn. of Trichechidae; 14.)
- Manatidae Gray, 1821 (family; = Trichechidae)
- x *1821 Gray, J.E. (n.fam.; in classification; 309.)
 x 1825 Gray, J.E. (in classification; 340, 344.)
 x 1839 Bonaparte, C.L. (in classification; diagnosis; 4.)
 x 1872b Gill, T. (m301.)
 x 1873 Gill, T. (phylogeny; 272.)
 x 1884 Flower, W.H. (in classification; m184.)
 x 1889b Dollo, L. (m421.)
 x 1891 Flower & Lydekker (in classification; m215.)
 x 1901 Elliott, D.G. (diagnosis; 5.)
 x 1904 Case, E.C. (teeth; m57.)

- x 1932c Simpson, G.G. (syn. of *Trichechidae*; 281.)
x 1942 Macarovici & Oescu (m376.)
x 1945 Simpson, G.G. (syn. of *Trichechidae*; 136.)
x 1974 Savage, J.M. (zoogeography; 15, 20, 26, 29.)
- Manatides Billberg, 1827 ("Nation" within Tribe Anthro-
pocephala; both taxa = Sirenia)
*1827 Billberg, G.J. (new taxon)
- Manatina Bonaparte, 1837 (subfamily within Order Cete;
= Sirenia)
*1837 Bonaparte, C.L. (new subfamily)
x 1839 Bonaparte, C.L. (in classification; diagnosis; 4.)
- Manatoidea Gill, 1872 (superfamily; = *Trichechidae*)
x *1872a Gill, T. (new superfamily; in classification; 14.)
- Manatus* Brünnich, 1772 (= *Trichechus*)
1751 Klein, J.T.
x *1772 Brünnich, M.T. (n.gen.; in classification & key; 34,
38-39.)
1777 Scopoli, J.A.
x 1784 Mayer, J. (fossil "*Mannatus*"; Czechoslovakia;
262-263.)
x 1809a Cuvier, G. (fossils; m303.)
x 1811 Illiger, C. (in classification; 140-141.)
x 1815 Rafinesque, C.S. (in classification; 60.)
x 1821 Gray, J.E. (in classification; 309.)
1822 Albers, C.F.
x 1825 Gray, J.E. (in classification; m340.)
x 1825a Harlan, R. (m275; 278-279.)
x 1825b Harlan, R. (supposed fossil, Maryland [actually
cetacean]; 236.)
1826 St.-Hilaire, I.G.
x 1827 Berthold, A.A. (in classification; 62.)
x 1827 Billberg, G.J. (in classification; tab. A.)
x 1828 Billberg, G.J. (in classification; tab. A.)
x 1837 Burmeister, H. (in classification; 793.)
x 1838a Kaup, J.J. (comp. w/ *Pugmeodon*; 319.)
x 1838 Serres, M. de (Plioc., Montpellier, France; 285.)
x 1844 Smith, J.L. (fossil, South Carolina; 116-117.)
x 1846 Allen, J.H. (?Pleist., Tampa Bay, Florida; 41.)
x 1847 Brandt, J.F. (comp. w/ *Hydrodamalis*; 47-48.)
x 1848 Gistel, J. (*Halipaedisca* proposed as replacement
name; 83.)
x 1849 Gibbes, R.W. (supposed Eoc. record, South Caro-
lina; 193.)
x 1850 Gibbes, R.W. (supposed Eoc. record, South Caro-
lina; 67-68.)
x 1850 Kneeland, S., Jr. (skeleton & affinities; 42-47.)
x 1853 Wallace, A.R. (Amazonia; 185-187, 458-461.)
x 1854 Leidy, J. (Plioc., North America; m10.)
x 1855 Owen, R. (comp. w/ *Prorastomus*; 542-543.)
x 1856a Leidy, J. (comp. w/ *Ischyrotherium*; m89.)
1857 Rapp, W.v.
1858a Krauss, C.F.F.
x 1860 McBain, J. (teeth; 152.)
1862a Krauss, C.F.F.
1864 Dana, J.D. (in classification; m169.)
x 1867c Brandt, J.F. (brain, comp. w/ HG & DD; 269-270.)
x 1868 Cope, E.D. (?Pleist., Maryland; m138.)
x 1868 Heuglin, M.T.v. (Ethiopia; 247, 289.)
x 1869 Leidy, J. (synopsis of North American remains;
414.)
x 1872a Gill, T. (syn. of *Trichechus*; 91.)
1872 Krauss, C.F.F.
x 1873 Gill, T. (phylogeny; 269, 272.)
x 1874 Flower, W.H. (comp. w/ *Halitherium*; 2-5.)
1875 Sclater, P.L.
x 1875 Wilder, B.G. (m111.)
1877 Leidy, J.
x 1878 Brown, A.E. (gen. acc.; 292-297.)
1878 Tegetmaier, W.B.
x 1880 Cope, E.D. (squamosal foramina; 456.)
x 1880 Zigno, A. de (comp. w/ *Halitherium veronense*;
293-294, 296.)
x 1884 Doran, A.H.G. (ear ossicles, comp. w/ HG;
367-370.)
x 1885a Woodward, H. (rostral pads, m460; brain, 461; ear
ossicles, 462; manus, m462; teeth, m464,
m472.)
x 1889b Dollo, L. (comp. w/ *Miosiren*; 416, 418-419, 421.)
x 1889 Lefèvre, T. (descent from Olig. Belgian sir;
199-200.)
x 1891 Flower & Lydekker (anatomy; 213, 215-220,
224.)
x 1892 Lydekker, R. (origin of tooth pattern; m82.)
x 1893 Howes & Harrison (teeth; m790.)
x 1895 Gundlach, J. (Cuba; m20.)
1897b Kükenthal, W.
x 1899 Palmer, T.S. (syn. of *Trichechus*; m494.)
x 1901 Elliott, D.G. (diagnosis; 5-6.)
x 1902 Allen, J.A. ("*Manatus* Storr" "of even date with"
Manati Zimmermann; 22.)
x 1904 Eggeling, H. (sternum; 99.)
x 1904 Freund, L. (manus, comp. w/ DD; 368, 372-373,
377-380, 383, 389-394.)
x 1904a Lorenz, L.v. (pelvis; m2, 9-11, pl. 1.)
x 1907b Arldt, T. (biogeographic significance; 674.)
x 1909 Anderson, R.J. (maxilla; 745.)
x 1912 Issel, A. (comp. w/ *Felsinootherium subapenninum*;
m121.)
x 1912a Matthes, E. (fetus, ear; 598.)
x 1914a Freund, L. (comp. w/ DD embryo; number of
cervical vertebrae, 359; fusion of cervical
vertebrae, m360; vertebral column, 365; pelvis,
372-373; scapula, m375; forelimb, m380,
m386.)

- 1916b Anon.
- x 1916a Matthew, W.D. (comp. w/ *Halitherium antillense*; 24.)
- 1918b Aichel, O.
- 1921 Marcus, H.
- x 1922 Sonntag, C.F. (tongue; 646–647.)
- x 1923 Nopcsa, F.v. (pachyostosis; m357.)
- x 1924 Thomas et al. (name preferred to *Trichechus*; 347.)
- x 1925 ICZN (use of name, vs. *Trichechus*; 34, 38–40.)
- x 1926 Aichel, O. (teeth; 43.)
- x *1929 ICZN (name suppressed in favor of *Trichechus*; 19.)
- x 1934 Hatt, R.T. (syn. of *Trichechus*; 534.)
- x 1942a Kaltenmark, J. (anatomy; gen. acc.; 53–54, 59, 61–64.)
- x 1943 Kaltenmark, J. (nasals, m18; phylogeny, 21.)
- 1945 Matthes, E.
- x 1945 Simpson, G.G. (syn. of *Trichechus*; in classification; 136.)
- x 1949 Sanderson, I.T. (Suriname; 781.)
- x *1952 Hemming, F. (suppression in favor of *Trichechus*; 159–160.)
- x 1952a Koenigswald, G.H.R.v. (comp. w/ *Indosiren*; 611.)
- x 1954 Aragão, A. de (Brazil; hunting; 54–56.)
- D 1957 Pronina, I.G.
- x 1960 Kappers et al. (pineal body; 2: 1064.)
- x 1961 Cabrera, A. (syn. of *Trichechus*; 309.)
- x 1968 Romer, A.S. (name preferred to *Trichechus*; 200.)
- x 1978c Domning, D.P. (syn. of *Trichechus*; m578.)
- x 1981c Domning, D.P. (syn. of *Trichechus*; 130–132.)
- x 1982 Domning, Rice et al. (syn. of *Trichechus*; m305.)
- Manatus aequatorialis* Lacépède, 1799 (nomen nudum)
- *1799 Lacépède, B.G.E. de (n.sp.)
- x 1934 Hatt, R.T. (considered nomen nudum; 535.)
- x 1961 Cabrera, A. (syn. of *Trichechus m. manatus*; 310.)
- Manatus africanus* Oken, 1816 (= *Trichechus senegalensis*)
- *1816 Oken, L. (n.sp.)
- x 1850 Wyman, J. (syn. of *M. Senegalensis*; m45.)
- x 1865 Gray, J.E. (lapsus for *M. senegalensis*; 137.)
- Manatus americanus* (Link, 1795) Illiger, 1815 (= *Trichechus manatus*; also used by many authors for *T. inunguis*)
- *1815 Illiger, C. (n.comb.)
- 1817b Desmarest, A.G.
- 1820 Ranzani, C.
- 1822 Cuvier, F.
- x 1824 Harlan, R. (comp. w/ other species; 390–394, pl. 13.)
- x 1825a Harlan, R. (m277.)
- x 1826 Wied-Neuwied, M. zu ([= TM] southern Brazil; 601–604.)
- 1829–
- 1844 Guérin-Méneville, F.-E.
- x 1831 Spix & Martius (Brazil; natural history & econ. use; 1122–1123.)
- x 1833 Shepard, C.U. (?Pleist., Suwannee Spring, Florida; 164.)
- x 1835b Duvernoy, G.L. (in classification; tab. 4.)
- x 1837 Richardson, J. (m162.)
- x 1838 Owen, R. (cecum, m32; gall bladder, m34; heart, m35; lungs, m36; kidneys, 39.)
- x 1838 Wiegmann, A.F.A. (relationship to other species; 12, 14–17.)
- x 1839 Diesing, C.M. (comp. w/ *M. exunguis*; 230.)
- x 1848 Schomburgk, R. (syn. of *M. australis*; 786.)
- x 1849 Warren, J.C. (presentation of skeleton & skin to Boston Soc. Nat. Hist.; 199.)
- x 1850 Cornalia, E. ([= TI] Manacapuru, Brazil; 303, 311.)
- 1850 Jäger, G.v. (osteology)
- x 1850 Wyman, J. (comp. w/ *M. nasutus*; 45–47.)
- x 1851 Gosse, P.H. (Jamaica, 341–346, 348–349; Haiti, 346–347.)
- *1852 Vrolik, W.T. (anatomy)
- x 1853 Wallace, A.R. (possible identity with Amazonian manatee; 458.)
- x 1857 Baikie, B. (syn. of *M. australis*; m29.)
- x 1857 Holton, I.F. ([= TM] Colombia; 46.)
- x 1857 Jäger, G.v. (Suriname; skull & skeleton; 91–98, pl. 6.)
- x 1857b Owen, R. (comp. w/ *M. Vogelii*; 99.)
- x *1865 Gray, J.E. (comp. w/ *M. senegalensis*; 131, 134–138.)
- x 1869 Leidy, J. ("*Manatus americanus fossilis*, Harlan"; m414.)
- x 1871 Cunningham, R.C. ([= TI?] from Amazonia; in capt., Rio de Janeiro; 798.)
- x *1872a Murie, J. (anatomy, 127–189, pls. 17–26; in capt., 191–193.)
- x 1874 Keller-Leuzinger, F. ([= TI] Amazonia; 81, 83.)
- 1875a Garrod, A.H.
- x 1875 Marcoy, P. (South America; 2: 42, 45, 187–194, 235–237.)
- x 1875a Owen, R. (brain, comp. w/ *Eotherium*; 100–105, pl. 3.)
- x 1875b Owen, R. (comp. w/ *Prorastomus*; 559–561, 563–567.)
- x 1876 Chapman, H.C. (from Guyana; in capt.; anatomy & behavior; 452–462; pl. 26.)
- x 1876 Southwell, T. (gen. acc.; 56–59.)
- x 1878 Harting, J.E. (gen. acc.; in capt., England; 285–287.)
- x *1880 Murie, J. (in capt., 21–26; anatomy, 27–44, pls. 5–9.)
- x 1881 Crane, A. (in capt., Brighton; 456–460.)
- x 1882 Sumichrast, F. (Mexico; 213.)
- 1883 Albrecht, D.

- x 1883 Pelzeln, A.v. (syn. of *M. latirostris* in part & *M. inunguis* in part, 88–94; comp. w/ *M. inunguis*, 90.)
- x 1884 Doran, A.H.G. (ear ossicles; 368, 370.)
- x 1885 Santa-Anna Nery, F.J. de ([= TI] Amazonia; 67–68, 71, 168.)
- x 1885a Woodward, H. (m468.)
- x 1886 Waldeyer, W. (pharynx; 245–246, 248.)
- x 1887b Baur, G. (supernumerary phalanges; 840.)
- x 1887 Roviroso, J.N. (syn. of *M. australis*; m356.)
- x 1889 Zipperlen, A. (in capt.; morphology; 25–26.)
- x 1890 Pilliet, A.H. (stomach; 450–453.)
- x 1891 Costa e Silva, B. da ("*mamatus americanus*" [= TI]; Brazil; 4.5-m specimen; 93–95.)
- x 1891 Flower & Lydekker (anatomy; 216, 219–220.)
- x 1892 Waldeyer, W. (stomach & intestine; histology; 79–85.)
- x 1893 Goeldi, E.A. (Brazil; 120–121.)
- x 1895 Veríssimo, J. ([= TM] Maranhão, Brazil; culinary use; 99, m129.)
- x 1896 Neish, W.D. (syn. of *M. australis*; m288.)
- x 1901 Elliott, D.G. (m6.)
- x 1907a Anon. ([= TI] Juruá R., Brazil; 98.)
- x 1907 Freund, L. (history of attempts to keep in capt.; 66–71.)
- x 1912b Dexler, H. (brain, comp. w/ DD; 97–98, 181, 186.)
- x 1914 Woodroffe, J.F. ([= TI] Brazil & Peru; hunting; 243–244.)
- x 1918 Cuní y Valera, L.A. (Cuba; gen. acc.; 84–95.)
- x 1919 Hanson, F.B. (sternum; 81, 111.)
- x 1922 Sonntag, C.F. (tongue; 646.)
- x 1923 Sowerby, A. de C. (m135.)
- x 1924–1925 Vosseler, J. (in capt.; historical records; 59–60.)
- x 1925 Bittencourt, A. ([= TI] Amazonas, Brazil; exploitation; 134–136.)
- x 1926 Sanielevici, H. (diet & mastication; 251, 254, 256.)
- x 1927 Brash, J.C. (alveolar septal reworking & tooth replacement; 19–20.)
- x 1928 Prater, S.H. (m86.)
- x 1933 Jobim, A. ([= TI] Brazil; hunting; 136, 140–144.)
- x 1934 Addison, W.H.F. (brain cells; 587, 590.)
- x 1934 Bittencourt, A. ([= TI] Brazil; hunting; 24–25.)
- x 1934 Hatt, R.T. (type species of *Halipaedisca* Gistel; m534.)
- x 1937 Pinheiro, A. ([= TI] Brazil; hunting; 215–218.)
- x 1953 Brash, J.C. (tooth replacement; 463–467.)
- x 1960 Vúletin, A. ("*Manatí americanus*"; m124.)
- x 1961 Cabrera, A. (syn. of *Trichechus inunguis* in part & *T. m. manatus* in part; 309–310.)
- x 1966 Bittencourt, A. ([= TI] Brazil; pop. acc.; 35–36.)
- x 1967 Fiuza Lima, F. ("*M. americano*" [= TI]; Brazil; captive breeding proposed; 17–18.)
- x 1978 Husson, A.M. (syn. of *Trichechus manatus*; m339.)
- Manatus antiquus* Leidy, 1856 (nomen dubium)
- x *1856b Leidy, J. (n.sp.; ?Mioc., eastern U.S.A.; 165.)
- x 1869 Leidy, J. (in synopsis; 414.)
- x 1877 Leidy, J. (Ashley phosphate beds, South Carolina; 214.)
- x 1884b True, F.W. (m116.)
- x 1886b Hartlaub, C. (m378.)
- x 1889 Leidy, J. (Peace Creek, Florida; m27.)
- x 1923a Allen, G.M. (history of study; 232.)
- x *1926 Allen, G.M. (referred to *Halitherium*; 455–458, pls. 2–3.)
- x 1932a Simpson, G.G. (history of study; 420–421, 444–445, 470.)
- x 1988 Domning, D.P. (specimens referred to *Metaxytherium floridanum*; 396, 399.)
- x 1989c Domning, D.P. (considered nomen dubium; 416.)
- Manatus atlanticus* Oken, 1838 (= *Trichechus manatus*, in part; *Trichechus senegalensis*, in part)
- *1838 Oken, L. (n.sp.)
- x 1934 Hatt, R.T. (syn. of *Trichechus manatus* in part & *T. senegalensis* in part; 536, 538.)
- x 1961 Cabrera, A. (syn. of *Trichechus m. manatus* in part; 310.)
- Manatus australis* Retzius, 1794 (= *Trichechus manatus*, in part; *Trichechus senegalensis*, in part; also used by many authors for *T. inunguis*)
- *1794 Retzius, A.J. (n.sp.)
- 1802 Tilesius, W.G.
- x 1808 Tiedemann, F. (gen. acc.; 555–556.)
- 1835–1836 Poeppig, E.F.
- x 1837 Burmeister, H. (in classification; 793.)
- x 1838 Wiegmann, A.F.A. (considered the appropriate name for the Orinoco manatee; 17.)
- x 1848 Schomburgk, R. ([= TM] Guyana; [= TI?] Rio Branco, ?Brazil; 786.)
- x 1855a Gervais, P. ([= TI] anatomy, 114–115; econ. use, 116.)
- x 1857 Baikie, B. (comp. w/ other species; 29–33.)
- x 1857 Rapp, W.v. ([= TI] distr.; m87–88.)
- x 1857 Shaw, N. (comp. w/ TS; 99.)
- x 1860 Nordmann, A.v. (comp. w/ *M. maeoticus*; 331, 333.)
- x 1863 McBain, J. (Belize; comp. w/ *M. Senegalensis*; 261–267.)
- x 1865 Gray, J.E. (syn. of *M. americanus*; m131, m133, m135.)
- x 1867 Claudius, M. (ear region, comp. w/ HG; 6–7, 9–11, 13–14.)
- x 1873 Conklin, W.A. (m166.)
- x 1876 Southwell, T. (syn. of *M. americanus*; m57.)
- x 1878 Brown, A.E. (gen. acc.; 293–294.)
- x 1878 Filhol, H. (comp. w/ *M. Coulombi*; 125.)

- x 1881 Crane, A. (lapsus [in title] for *M. americanus*; 456.)
- x 1883 Pelzeln, A.v. (considered the correct name for the Amazonian manatee; 88–89, 95.)
- x 1883 Stoll, O. (Lake Izabal, Guatemala; m346.)
- x 1884b True, F.W. (Britain; m114, 116.)
- x 1885 Santa-Anna Nery, F.J. de ([= TI] Amazonia; 67–68, 71, 168.)
- x 1887 Roviroso, J.N. (Tabasco, Mexico; distr., hunting, econ. use; 356–358.)
- x 1889 Anon. (from Guyana; in capt., London; 527–528.)
- x 1891 Flower & Lydekker (syn. of *M. americanus*; m220.)
- x 1896 Neish, W.D. (Jamaica; gen. acc.; 287–288.)
- x 1901 Elliott, D.G. (m6.)
- x 1902 Andrews, C.W. (m293.)
- x *1903 Rodriguez Ferreira, A. (Pará, Brazil; 169–174.)
- x 1918 Cuní y Valera, L.A. (syn. of *M. americanus*; 89.)
- 1933 Bahrtdt, H.J.
- x 1934 Hatt, R.T. (m537.)
- 1955 Tucker, R.
- x 1961 Cabrera, A. (syn. of *Trichechus inunguis* in part & *T. m. manatus* in part; 309–310.)
- x 1986 Domning & Hayek (m126.)
- Manatus balaenurus* (Boddaert, 1785) Bechstein, 1800 (= *Hydrodamalis gigas*)
- *1800 Bechstein, J.M. (n.comb.)
- Manatus borealis* (Gmelin, 1788) Link, 1795 (= *Hydrodamalis gigas*)
- *1794–95 Link, H.F. (n.comb.)
- 1802 Ozeretskovsky, N.
- x 1808 Tiedemann, F. (gen. acc.; 555–556.)
- x 1828 Fleming, J. ([= TM?] Britain; 29.)
- 1831 Pallas, P.S.
- x 1837 Bell, T. ([= TM?] Britain; 525.)
- x 1875a Owen, R. (syn. of *Rhytina Stelleri*; m104.)
- x 1885a Woodward, H. ([= TM?] Britain; m469.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 93.)
- Manatus brocchii* (de Blainville, 1844) de Blainville, 1844 (= *Metaxytherium subapenninum*)
- *1844 Blainville, H.M.D. de (n.comb.)
- x 1847b Gervais, F.L.P. (m209, 214.)
- Manatus christolii* (Fitzinger, 1842) de Blainville, 1844 (= *Halitherium christolii*)
- *1844 Blainville, H.M.D. de (n.comb.)
- Manatus clusii* (Pennant, 1793) Bechstein, 1800 (= *Trichechus manatus*)
- *1800 Bechstein, J.M. (n.comb.)
- Manatus coulombi* Filhol, 1878 (= *Eotheroides aegyptiacum*)
- x *1878 Filhol, H. (n.sp.; Eoc., Egypt; 124–125.)
- x 1885a Woodward, H. (m470.)
- x 1886b Hartlaub, C. (m378.)
- x 1902 Andrews, C.W. (comp. w/ *Eosiren libyca*; 293.)
- x 1932a Simpson, G.G. (syn. of *Eotheroides aegyptiacum*; m474.)
- x 1978c Domning, D.P. (syn. of *Eotheroides aegyptiacum*; m575.)
- x 1992 Gingerich, P.D. (Egypt; stratigraphic horizon; ?syn. of *Protosiren fraasi*; 71, 75.)
- Manatus cuvieri* (de Christol, 1832) de Blainville, 1844 (= *Metaxytherium medium*, in part; *Metaxytherium serresii*, in part)
- *1844 Blainville, H.M.D. de (n.comb.)
- x 1847b Gervais, F.L.P. (m208.)
- x 1867 Peters, K.F. (syn. of *Halitherium Cordieri*; m309.)
- x 1971 Ginsburg & Janvier (syn. of *Metaxytherium medium*; m182.)
- x 1987 Domning & Thomas (syn. of *Metaxytherium serresii*; 210.)
- Manatus dubius* (Cuvier, 1824) de Blainville, 1844 (= *Halitherium schinzii*)
- *1844 Blainville, H.M.D. de (n.comb.)
- Manatus dugung* (Erxleben, 1777) de Blainville, 1844 (= *Dugong dugon*)
- *1844 Blainville, H.M.D. de (n.comb.)
- Manatus exunguis* Natterer in Diesing, 1839 (= *Trichechus inunguis*)
- x *1839 Diesing, C.M. (n.sp.; in quotation from Natterer; nematode *Heterocheilus tunicatus*, 230; trematode *Amphistoma fabaceum*, 236.)
- x 1845 Stannius, H. (m2.)
- x 1851 Diesing, C.M. (nematode *Heterocheilus tunicatus*; 209, 502.)
- x 1899 Stiles & Hassall (syn. of *M. inunguis*; m169.)
- x 1929 Stunkard, H.W. (trematode *Chiorchis fabaceus*; account quoted from Diesing; 254.)
- x 1936 Baylis, H.A. (m257.)
- x *1981c Domning, D.P. (suppression proposed; 131–132.)
- x 1981 Sprent, J.F.A. (syn. of *Trichechus inunguis*; 310, 312.)
- x *1985 Melville, R.V. (name suppressed; 175–176.)
- Manatus fluviatilis* Olfers, 1818 (= *Trichechus m. manatus*)
- *1815 Illiger, C. (nomen nudum)
- *1818 Olfers, I. (n.sp.)

- x 1865 Gray, J.E. (syn. of *M. americanus*; m135.)
 x 1876 Southwell, T. (syn. of *M. americanus*; m57.)
 x 1901 Elliott, D.G. (m6.)
 x 1918 Cuní y Valera, L.A. (syn. of *M. americanus*; m89.)
 x 1934 Hatt, R.T. (considered nomen nudum; 536.)
 x 1959 Hershkovitz, P. (syn. of *Trichechus m. manatus*; 342.)
 x 1961 Cabrera, A. (syn. of *Trichechus m. manatus*; 310.)
- Manatus fossilis* Holl, 1829 (= *Metaxytherium medium*)
 *1829 Holl, F. (n.sp.)
 1832 Meyer, H.v.
 x 1834 Keferstein, C. (France, Bohemia, Maryland; 2: 217.)
 x 1838a Kaup, J.J. (m319.)
 x 1840 Kaup, J.J. (syn. of *Pugmeodon*; 676.)
 1845 Pédróni, P.M.
 x 1847b Gervais, F.L.P. (m208, 210.)
 x 1867 Peters, K.F. (syn. of *Halitherium Cordieri*; m309.)
 x 1875a Owen, R. (m104.)
 x 1880 Delfortrie, E. (comp. w/ *Rytiodus*; m139.)
 x 1942b Kaltenmark, J. (history of collection, 101–102; m113.)
 x 1971 Ginsburg & Janvier (syn. of *Metaxytherium medium*; m182.)
- Manatus giganteus* DeKay, 1842 (Cetacea)
 *1842 DeKay, J.E. (n.sp.)
 x 1869 Leidy, J. (m414.)
 x *1904 Case, E.C. (referred to *Trichechus*; 56.)
 x 1923a Allen, G.M. (m231.)
 x 1932a Simpson, G.G. (m421.)
 x *1966 Kellogg, R. (review; 66.)
- Manatus gigas* (Zimmermann, 1780) Lucas, 1891 (= *Hydrodamalis gigas*)
 x *1891 Lucas, F.A. (n.comb.; 623.)
 x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 93.)
- Manatus guettardi* de Blainville, 1844 (= *Halitherium schinzii*)
 *1844 Blainville, H.M.D. de (n.sp.)
 1845 Pédróni, P.M.
 x 1847b Gervais, F.L.P. (m208, 210.)
 x 1875a Owen, R. (m104.)
 x 1880 Delfortrie, E. (comp. w/ *Rytiodus*; m142.)
 x *1889 Lefèvre, T. (referred to *Metaxytherium*; Belgium; 199.)
 x 1892 Barbosa Rodrigues, J. ("*M. Guetardi*?"; Brazil; 53–54.)
- Manatus guyannensis* Bechstein, 1800 (= *Trichechus manatus*)
 *1800 Bechstein, J.M. (n.sp.)
 x 1934 Hatt, R.T. (syn. of *Trichechus manatus*; 535.)
- Manatus hypopithecus* (Shaw, 1800) Fischer, 1829 (Steller's "sea-ape"; nomen nudum)
 *1829 Fischer, J.B. (n.comb.)
- Manatus indicus* (Boddaert, 1785) Daudin, 1802 (= *Dugong dugon*)
 *1799? Daudin, F.M. (n.comb.)
 1844 Blainville, H.M.D. de
- Manatus inornatus* Leidy, 1873 (nomen dubium)
 x *1873 Leidy, J. (n.sp.; South Carolina; 336–337, pl. 37.)
 x 1884b True, F.W. (m116.)
 x 1885a Woodward, H. (m470.)
 x 1886b Hartlaub, C. (m378.)
 x 1923a Allen, G.M. (m232.)
 x *1926 Allen, G.M. (syn. of *Halitherium antiquum*; 455, 457–458.)
 x 1932a Simpson, G.G. (history of study; 420–421, 444–445.)
 x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 65–66.)
 x 1989c Domning, D.P. (considered nomen dubium; 416.)
- Manatus inunguis* Natterer in von Pelzeln, 1883 (= *Trichechus inunguis*)
 x *1883 Pelzeln, A.v. (n.sp.; in quotation from Natterer; syn. of *M. australis*; Amazonas, Brazil; 88–94.)
 *1886a Hartlaub, C.
 x 1886b Hartlaub, C. (comp. w/ *Manatherium*; 372.)
 x 1891 Flower & Lydekker (m220.)
 x 1893 Goeldi, E.A. (Brazil; 120.)
 x 1895 Veríssimo, J. (Brazil; hunting & econ. use; 35–40, 92–93, 96, 99–102, 117, 119, 129.)
 x 1896 Sclater, P.L. (in capt., London; 212.)
 x *1897 Beddard, F.E. (comp. w/ *M. latirostris*; 47–53.)
 x 1897b Kükenthal, W. (diagnosis, based on external characters; 40.)
 x 1899 Stiles & Hassall (nematode *Heterocheilus tunica-tus*; m107, m169–170.)
 x 1904 Goeldi & Hagmann (Brazil; 89–90.)
 x 1905 Mitchell, P.C. (intestine; 464–465.)
 x 1907 Freund, L. (history of attempts to keep in capt.; 68, 71.)
 x 1916a Anon. (in capt., New York; 1419, 1421.)
 x 1919 Anon. (in capt., New York; supposed stomach anomaly; 46.)
 x 1921b Marcus, H. (number of teeth; 155.)
 x 1923 Kostanecki, K. (cecum; 273–276.)

- x 1924b Petit, G. (kidney; m245.)
- x 1928 Prater, S.H. (m86.)
- 1933 Bahrtdt, H.J.
- x 1934 Hatt, R.T. (syn. of *Trichechus inunguis*; 537.)
- x 1938 Devillers, C. (in capt.; measurements, behavior; 84–88.)
- x 1939a Moraes, R. (Brazil; export in 17th century; 91–92.)
- x 1942a Kaltenmark, J. (gen. acc.; 54–55, 59, 61.)
- x 1943 Kaltenmark, J. (nasals; 15.)
- x 1948 Mendes, A. (syn. of *Trichechus manatus*; m325.)
- x 1949 Vieira, C.O.C. (syn. of *Trichechus inunguis*; m268.)
- x 1951 Wegner, R.N. (dental capsule; 76–81.)
- x 1952 Nimuendajú, C. (Amazonas, Brazil; “rarely caught” by Tukuna Indians; m26.)
- x *1954b Friant, M. (brain; 129–135.)
- x 1961 Cabrera, A. (syn. of *Trichechus inunguis*; m309.)
- x 1961 Slijper, E.J. (closure of foramen ovale & ductus arteriosus; 536.)
- x 1965 Ruschi, A. (syn. of *Trichechus inunguis*; m30.)
- x 1972 Coimbra-Filho, A.F. (syn. of *Trichechus inunguis*; m82.)
- x 1973 Pine, R.H. (syn. of *Trichechus inunguis*; m74.)
- x 1976 Fleischer, G. (anchoring of stapes; 305, 309–310.)
- x 1981c Domning, D.P. (syn. of *Trichechus inunguis*; 131.)
- x *1985 Melville, R.V. (specific name placed on Official List of Names in Zoology; 175–176.)
- Manatus koellikeri* Kükenenthal, 1897 (= *Trichechus manatus*)
- x *1897b Kükenenthal, W. (n.sp.; Suriname; 40.)
- x 1907 Freund, L. (m71–72.)
- x 1924–
- 1925 Vosseler, J. (validity doubtful; 59.)
- 1933 Bahrtdt, H.J.
- x 1934 Hatt, R.T. (syn. of *Trichechus manatus*; 537.)
- x 1942a Kaltenmark, J. (validity doubtful; m54.)
- *1945 Matthes, E. (synonymized with *Trichechus m. manatus*)
- x 1951 Kleinschmidt, A. (skin structure; 308.)
- x 1961 Cabrera, A. (syn. of *Trichechus m. manatus*; 310.)
- x 1978 Husson, A.M. (syn. of *Trichechus manatus*; m339.)
- x 1986 Domning & Hayek (syn. of *Trichechus manatus*; m88.)
- Manatus latirostris* Harlan, 1824 (= *Trichechus manatus*)
- x *1824 Harlan, R. (n.sp.; Florida; 390–394, pl. 13.)
- x 1825a Harlan, R. (Florida, 277; Belize, m278.)
- x 1837 Richardson, J. (m162.)
- x 1838 Wiegmann, A.F.A. (relationship to other species; 12–17.)
- x 1850 Wyman, J. (comp. w/ *M. nasutus*; 45–47.)
- x 1851 Wyman, J. (skull; 192.)
- x 1856b Leidy, J. (comp. w/ *M. antiquus*; 165.)
- x 1857 Baikie, B. (validity doubtful; m29, m33.)
- x *1857 Rapp, W.v. (Suriname; anatomy; 87–98, pl. 3.)
- x 1861 Möbius, K. (Belize; structure of rostral pads; 148–156, pl. 7.)
- x 1865 Gray, J.E. (syn. of *M. americanus*; 131–132, 135.)
- 1868a Anon.
- x 1873 Conklin, W.A. (m166.)
- x 1876 Southwell, T. (syn. of *M. americanus*; m57.)
- x 1878 Brown, A.E. (gen. acc.; 293–297.)
- 1878 Gulliver, G.
- x 1883 Pelzeln, A.v. (name used for TM in preference to *M. americanus*; 89, 91, 93–95.)
- x 1885a Woodward, H. (ear ossicles, 462; m468.)
- *1886a Hartlaub, C.
- x 1886b Hartlaub, C. (comp. w/ *Manatherium*; 371, 375.)
- x 1887 Martin, K. (Suriname; 27.)
- x 1887 Roviroso, J.N. (syn. of *M. australis*; m356.)
- x 1890 Leidy, J. (trematode *Amphistomum fabaceum*; 413–414.)
- x 1891 Flower & Lydekker (syn. of *M. americanus*; m220.)
- x 1892 Tuckerman, F. (tongue; 77.)
- x 1893 Goeldi, E.A. (Brazil; 120.)
- x 1896 Kükenenthal, W. (embryonic dentition; 513–526.)
- x *1897 Beddard, F.E. (comp. w/ *M. inunguis*; 47–53.)
- x 1897b Kükenenthal, W. (diagnosis; 39.)
- x 1901 Elliott, D.G. (diagnosis, 6; pl. 2.)
- x 1904a Lorenz, L.v. (pelvis; 9–11, pl. 1.)
- x 1907 Freund, L. (history of attempts to keep in capt.; 68–71.)
- x 1908c Abel, O. (locomotor organs; m403.)
- x 1908b Gudernatsch, J.F. (in capt.; anatomy, behavior, etc.; 225–236, pl. 9.)
- 1912b Matthes, E.
- x 1915 Anon. (from Puerto Rico; in capt., New York; 1216–1217.)
- x 1916a Anon. (in capt., New York; behavior, comp. w/ *M. inunguis*; 1421.)
- x 1918 Cuní y Valera, L.A. (syn. of *M. americanus*; m89.)
- x 1918 Ménégau, A. (syn. of TM; m699.)
- x 1924b Petit, G. (kidney; 245.)
- 1932 Korschelt, E. (radius & ulna; 451.)
- x 1932 Sokoloff & Caballero (trematode *Schizamphistoma manati*; 163, 167.)
- 1933 Bahrtdt, H.J.
- 1933 Wislocki, G.B.
- x 1934 Hatt, R.T. (syn. of *Trichechus manatus latirostris*; 536.)
- x 1935b Wislocki, G.B. (syn. of *Trichechus latirostris*; m159.)
- x 1936 Baylis, H.A. (m257.)
- 1940 Wislocki, G.B.
- x 1941 Pycraft, W.P. (illustration; 328.)
- x 1942a Kaltenmark, J. (gen. acc.; 54–55.)
- x 1943 Kaltenmark, J. (nasals; 15.)

- x 1947 Harwood, K. (Florida; in capt.; pop. acc.; 50, 89.)
- x 1955 Miller & Kellogg (syn. of *Trichechus manatus latirostris*; m791.)
- x 1961 Cabrera, A. (syn. of *Trichechus m. manatus*, in part; 310.)
- x 1961 Slijper, E.J. (closure of foramen ovale & ductus arteriosus; 536.)
- x 1963 Alvarez, T. (syn. of *Trichechus manatus latirostris*; m465.)
- x 1965b Kaiser, H.E. (body cavity nomenclature; 426–428.)
- x 1966a Kaiser, H.E. (body cavity; 61, 66.)
- x 1976 Koopman, K.F. (cotype in Acad. Nat. Sci. Philadelphia; 23.)
- x 1978a Domning, D.P. (myology; 5.)
- x 1978 Husson, A.M. (syn. of *Trichechus manatus*; m339.)
- x 1986 Domning & Hayek (cotypes; 113.)
- Manatus maeoticus* Eichwald, 1850 (Pinnipedia?)
- v 1844 Blainville, H.M.D. de
- *1850 Eichwald, E.v.
- x *1860 Nordmann, A.v. (Bessarabia; 328–333, pl. 25.)
- x 1861 Nordmann, A.v. (Bessarabia; 581–582, pl. 11.)
- 1900 Sinzov, I.
- x 1931 Simionescu, I. (Romania; 146, 154–155, 157.)
- x *1942 Macarovici & Oescu (Bessarabia; 351, 353, 376–379, 382, pl. 7.)
- 1976 Reinhart, R.H. (Bessarabia; 281–282.)
- Manatus manatus* (Linnaeus, 1758) [author of combination not identified] (= *Trichechus manatus*)
- x 1917 Holland, W.J. (Isle of Pines, Cuba; 356.)
- x 1918 Cuní y Valera, L.A. (syn. of *M. americanus*; 89.)
- x 1954b Friant, M. (brain; 133–134.)
- Manatus minor* Daudin, 1802 (= *Trichechus manatus*)
- *1802 Daudin, F.M. (n.sp.)
- x 1934 Hatt, R.T. (syn. of *Trichechus m. manatus* in part & *T. inunguis* in part; 536.)
- x 1961 Cabrera, A. (syn. of *Trichechus m. manatus* in part & *T. inunguis* in part; 309–310.)
- Manatus nasutus* Wyman in Perkins, 1848 (= *Trichechus senegalensis*)
- xv *1848 Perkins, G.A. (species described but not named; 198–199.)
- x *1848 Wyman, J. (n.sp.; 199.)
- x 1850 Wyman, J. (skull; 45–47.)
- x *1851 Wyman, J. (skull; 192.)
- x 1857 Baikie, B. (?syn. of *M. senegalensis*; m29, m33.)
- x 1865 Gray, J.E. (syn. of *M. senegalensis*; m132, m134.)
- x 1872a Murie, J. (lungs; m172.)
- x 1876 Southwell, T. (syn. of *M. senegalensis*; m57.)
- x 1934 Hatt, R.T. (syn. of *Trichechus senegalensis*; 536, 538.)
- x 1982 Kleinschmidt, A. (syn. of *Trichechus senegalensis*; 382.)
- x *1986 Domning & Hayek (syn. of *Trichechus senegalensis*; 126.)
- Manatus oronocensis* Bechstein, 1800 (= *Trichechus manatus*)
- *1800 Bechstein, J.M. (n.sp.)
- x 1934 Hatt, R.T. (syn. of *Trichechus manatus* in part & *T. inunguis* in part; 535.)
- x 1961 Cabrera, A. ("*M. oronocensis*," "*M. oronocensis*"; syn. of *Trichechus m. manatus* in part & *T. inunguis* in part; 309–310.)
- Manatus oweni* Du Chaillu, 1861 (= *Trichechus senegalensis*)
- x *1861a Du Chaillu, P.B. (n.sp.; name conditionally proposed; West Africa; measurements, habits; 367.)
- x 1861b Du Chaillu, P.B. (m471.)
- x 1865 Gray, J.E. (syn. of *M. senegalensis*; 133–134.)
- x 1876 Southwell, T. (syn. of *M. senegalensis*; m57.)
- x 1934 Hatt, R.T. (syn. of *Trichechus senegalensis*; 537–538.)
- x 1982 Kleinschmidt, A. (syn. of *Trichechus senegalensis*; 382.)
- x *1986 Domning & Hayek (syn. of *Trichechus senegalensis*; 126.)
- Manatus renggeri* Bronn, 1838 (nomen nudum; lapsus for *Halitherium schinzii*)
- *1838 Bronn, H.G. (n.sp.; nomen nudum)
- Manatus schinzii* (Kaup, 1838) de Blainville, 1844 (= *Halitherium schinzii*)
- *1844 Blainville, H.M.D. de (n.comb.)
- x 1846 Meyer, H.v. (syn. of *Halianassa Collinii*; 328.)
- Manatus senegalensis* Desmarest, 1817 (homonym of *Trichechus senegalensis* Link, 1795)
- *1817b Desmarest, A.G.
- 1822 Cuvier, F.
- x 1824 Harlan, R. (comp. w/ other species; 390–394, pl. 13.)
- 1825 Desmarest, A.G.
- x 1825a Harlan, R. (m277.)
- 1827–
- 1832 Griffith et al.
- x 1837 Richardson, J. (m162.)
- x 1838 Wiegmann, A.F.A. (relationship to other species; 12–13.)

- x 1849 Warren, J.C. (m199.)
- x 1850 Wyman, J. (comp. w/ *M. nasutus*; 45–47.)
- x 1857 Baikie, B. (comp. w/ *M. Vogelii* & other species; 29–33.)
- x 1857b Owen, R. (comp. w/ *M. Vogelii*; 99–100.)
- x 1860 McBain, J. (skull; 150–152.)
- x 1861a Du Chaillu, P.B. (m367.)
- x 1863 McBain, J. (comp. w/ *M. australis*; 261–267.)
- x *1865 Gray, J.E. (comp. w/ *M. americanus*; 131–138.)
- x 1873 Conklin, W.A. (m166.)
- x 1874 Schweinfurth, G. (Keebaly R., West Africa; 159–160, 512.)
- x 1875 Schweinfurth, G. (Keebaly R., West Africa; 138, 422.)
- x 1876 Southwell, T. (gen. acc.; 57, 59.)
- x 1878 Brown, A.E. (gen. acc.; 293–294.)
- x 1883 Moloney, C.A. (Gold Coast; capture; 27–29.)
- x 1883 Rochebrune, A.T. de (Senegambia; 190–191.)
- x 1884 Doran, A.H.G. (ear ossicles; 368–369.)
- x 1885a Woodward, H. (teeth; 468.)
- *1886a Hartlaub, C.
- x 1886b Hartlaub, C. (comp. w/ *Manatherium*; 370, 372–374.)
- x 1888 Jentink, F.A. (Liberia; measurements; 33–34.)
- x 1890 Büttikofer, J. (Liberia; distr. & capture; 2: 392–393.)
- x 1891 Flower & Lydekker (anatomy; 217, 220.)
- x 1894 Miller, W.D. (tooth caries; 15–18.)
- 1894 Turner, W.
- x 1897b Kükenthal, W. (diagnosis; 39.)
- x 1903 Gravel, A. (Congo; barnacle *Chelonibia manati*; 116.)
- x 1907 Freund, L. (history of attempts to keep in capt.; 71.)
- x 1921a Marcus, H. (tooth replacement; 574–586, pls. 18–19.)
- x 1921b Marcus, H. (number of teeth; 155.)
- x 1923 Sowerby, A. de C. (m135.)
- x 1924b Petit, G. (kidney; 245.)
- x 1924c Petit, G. (kidney; 2197–2200.)
- x 1925 Pécaud, G. (Benué R.; 48.)
- x 1928b Petit, G. (fusion of cervical vertebrae; 429–431.)
- x 1928 Prater, S.H. (m86.)
- x 1931 Sickenberg, O. (pachyostosis & osteosclerosis; 410, 412–413, 415.)
- 1933 Bahrtdt, H.J.
- x *1934 Hatt, R.T. (syn. of *Trichechus senegalensis*; 536, 538.)
- x 1936 Baylis, H.A. (Nigeria; trematode *Chiorchis fabaceus*; 257.)
- x 1937 Johnson, E. ("*Manabus senegalensis*"; Gambia; 63–64, 66.)
- x 1937 Sanderson, I.T. (Mamfe, West Africa; 266–268.)
- x 1939 Beal, W.P.B. (gen. acc. & possible econ. use; 125–126.)
- x 1942a Kaltenmark, J. (gen. acc.; 54–62.)
- x 1943 Kaltenmark, J. (nasals; 15.)
- x 1951 Wegner, R.N. (dental capsule; 76–81.)
- x 1953 Brash, J.C. (tooth replacement; 463–464.)
- x 1954b Friant, M. (brain; 130–131, 134.)
- x 1986 Domning & Hayek (m126.)
- Manatus simia* Illiger, 1815 (Steller's "sea-ape": nomen nudum)
- *1815 Illiger, C.
- Manatus simininus* Bechstein, 1800 (Steller's "sea-ape": nomen nudum)
- *1800 Bechstein, J.M.
- Manatus sphaerurus* Illiger, 1815 (nomen nudum; = *Trichechus senegalensis*)
- *1815 Illiger, C. (n.sp.; nomen nudum)
- x 1934 Hatt, R.T. (nomen nudum; syn. of *Trichechus senegalensis*; 536, 538.)
- Manatus stroggylonurus* Bechstein, 1800 (= *Trichechus senegalensis*)
- *1800 Bechstein, J.M. (n.sp.)
- x 1934 Hatt, R.T. (syn. of *Trichechus senegalensis*; 536–537.)
- Manatus studeri* von Meyer, 1837 (nomen nudum; = *Metaxytherium krahuletzii*)
- x *1837 Meyer, H.v. (n.sp.; nomen nudum; 677.)
- x *1838 Meyer, H.v. (referred to *Halianassa*; 667.)
- x 1839a Meyer, H.v. (syn. of *Halianassa Studeri*; 4.)
- x 1840 Kaup, J.J. (?referred to *Halitherium*; 675.)
- x 1952 Thenius, E. (referred to *Thalattosiren*; 110–111, 113.)
- x *1966 Kellogg, R. (review; 68–69.)
- x *1987b Domning, D.P. (considered nomen nudum; 122–125.)
- Manatus tabernaculi* (Rüppell, 1834) de Blainville, 1844 (= *Dugong dugon*)
- *1844 Blainville, H.M.D. de (n.comb.)
- Manatus vogelii* Owen, 1856 (= *Trichechus senegalensis*)
- *1856 Owen, R. (n.sp.)
- x *1857 Baikie, B. (skull, comp. w/ other species; 29–33, pl. 51.)
- 1857b Owen, R. (reprinting of Owen [1856]; 99–100.)
- x 1861a Du Chaillu, P.B. (probable senior syn. of *M. Oweni*; 367.)
- x 1865 Gray, J.E. (syn. of *M. senegalensis*; 133–134.)
- v 1870 Verne, J. ("ajoub": fictional account)
- x 1874 Schweinfurth, G. (Keebaly R., West Africa; 160, 572.)

- x 1875 Schweinfurth, G. (Keebaly R., West Africa; 138, 422.)
- x 1876 Southwell, T. (syn. of *M. senegalensis*; m57.)
- 1877 Heuglin, M.T.v.
- x 1925 Pécaud, G. (Lake Chad & Chari R.; 48.)
- x 1934 Hatt, R.T. (syn. of *Trichechus senegalensis*; 537-538.)
- x 1942a Kaltenmark, J. (m56.)
- x *1986 Domning & Hayek (syn. of *Trichechus senegalensis*; 126.)
- Manatus vulgaris* Bechstein, 1795
- *1795 Bechstein, J.M. (n.sp.)
- Maryland
- x 1825a Harlan, R. (*Manatus*; 278.)
- x 1825b Harlan, R. (*Manatus* [erroneous report]; 236.)
- x 1868 Cope, E.D. (*Manatus*; ?Pleist., Charles Co.; m138.)
- x 1904 Case, E.C. (*Trichechus giganteus*; Mioc.; 56-57, pl. 26.)
- 1904 Shattuck, G.B.
- x 1906 True, F.W. (?*Metaxytherium*; Calvert Formation; 835, 840, pl. 76.)
- x 1917 Palmer, W. (Mioc. sir.; 344.)
- x 1957 Kellogg & Whitmore (*Metaxytherium*; paleoecology; 1022.)
- x *1966 Kellogg, R. (*Metaxytherium calvertense*, n.sp.; Middle Mioc.; 66-67, 71.)
- 1971 Gernant et al.
- x 1980 Burton, B. (?TML; Chesapeake Bay; 19, 40-41.)
- x 1984b Domning, D.P. (fossil & Recent sirs.; pop. acc.; 5-6.)
- x 1987 Shisler, M. (?TM; Solomons Harbor; 34.)
- Masrisiren* Kretzoi, 1941 (= *Eotheroides*)
- x *1941 Kretzoi, M. (n.gen.; Eoc., Egypt; in classification; 152, 155, pl. 6.)
- x 1978c Domning, D.P. (syn. of *Eotheroides*; m575.)
- Masrisiren abeli* Kretzoi, 1941 (= *Eotheroides aegyptiacum*)
- x *1941 Kretzoi, M. (n.gen.n.sp.; Eoc., Egypt; 152.)
- x 1953 Kretzoi, M. (m274.)
- x 1980 Kordos, L. (nature of type material; 387.)
- Mastication (SEE ALSO: Behavior, Ingestive)
- 1878 Tegetmaier, W.B. (*Trichechus*; lips)
- x 1921 Marcus, H. (*Trichechus*; ?propalinal jaw motion; 581.)
- x 1925 Kellogg, R. (*Metaxytherium & Hydrodamalis*; 57-58.)
- x 1926 Sanielevici, H. (sirs. interpreted as molluscivores; 251-256.)
- x 1935 Barrett, O.W. (TMM; "little chewing": 217.)
- x 1940 Pocock, R.I. (DD; cause of tooth wear; 340.)
- x 1941b Heuvelmans, B. (*Trichechus*; 10-11.)
- x 1953 Fernand, V.S.V. (DD; molar occlusion; 143-144.)
- x 1957 Gohar, H.A.F. (DD; role of rostral pads; 22-23.)
- x 1971b Domning, D.P. (*Metaxytherium & Hydrodamalis*; 217-218.)
- x *1973 Sonoda & Takemura (TMM; rate & sound frequency of chewing; 21, 24.)
- x 1975 Lipkin, Y. (DD; thought ineffective at chewing dry plants, 88, or algae, 92-93.)
- x 1977a Domning, D.P. (DD; jaw muscles; 27-28.)
- x *1978a Domning, D.P. (TI; jaw mechanics; 57-67.)
- x *1978b Domning, D.P. (hydrodamalines; jaw mechanics; 117-121.)
- x 1979 Hartman, D.S. (TML; Florida; rate = 2 chews/sec; 85.)
- x 1980 Marsh, H. (DD; adaptations to tooth wear; 199.)
- x 1980 Miller et al. (TM; propalinal jaw movement & tooth replacement; 128A.)
- x 1982 Marsh et al. (DD; condition of stomach contents; tooth size; 59, 64.)
- x 1983 Bengtson, J.L. (TML; chewing rate & food consumption; 1187-1191.)
- x 1983a Domning, D.P. (*Trichechus*; tooth replacement; pop. acc.; 8, 10-11.)
- x *1984 Domning & Hayek (TI; chewing & tooth replacement; 119-125.)
- x 1985 Etheridge et al. (TM; chewing rate & food consumption; 21-25.)
- x D 1985 Fortelius, M. (sirs. & desmostylians; functional anatomy of cheek teeth; 11, 52-53, 57, 65.)
- x 1986 Gallivan & Best (TI; chewing rate; 554-556.)
- 1988 Janis & Fortelius
- x 1989d Domning, D.P. (*Xenosiren yucateca*; 435-436.)
- Medicinal Applications (SEE ALSO: Economic Use)
- 1526 Oviedo, G.F. de (TMM; West Indies)
- x 1665 Rochefort, C. de (TMM; West Indies; 195.)
- x 1667 Rochefort, C. de (TMM; West Indies; 393-394.)
- x 1809a Cuvier, G. (*Trichechus*; ear bones; m275, 287.)
- 1814 Merolla da Sorrento, J. (TS; ribs, ear bones)
- x 1814 Santos, J. dos (DD; Mozambique; tusks; 701.)
- x 1826 Wied-Neuwied, M. zu (TMM; Brazil; bone; 603.)
- 1852 Sidney, S. (DD; Australia; oil)
- x 1857 Fairholme, J.K.E. (DD; Australia; oil; 353.)
- x 1860 McGrigor-Croft, J. (DD; oil; 7166-7169.)
- 1863 Gould, J. (DD; Australia)
- x 1874 Estacio da Silveira, S. (TMM; Maranhão, Brazil; bone; as anticoagulant; 27.)
- x 1881 Anon. (DD; Australia; oil; 743.)
- x 1882 Faithful, P. (DD; Queensland; oil; 6-7, 9-10, 13, 15.)
- x 1887 Rovirosa, J.N. (TMM; Mexico; bones; 357-358.)

- x 1893 Goeldi, E.A. (*Trichechus*; Brazil; hide, oil; for rheumatism; 120.)
- x 1895 Thurston, E. (DD; Sri Lanka; fat; 99.)
- x 1901 Anon. (DD; Torres Strait; fat; m21239.)
- x 1909 Anon. (DD; Australia; meat; 93.)
- x 1912 Harris, W.K. (DD; Australia; oil, lard; 227-228.)
- x 1917 Fairchild, D. (*Trichechus*; oil; 345.)
- x 1922 Dandouau, A. (?DD; Madagascar; fat; 119.)
- x 1923 Jackson, E.S. (DD; Australia; oil; m282.)
- x *1923 Petit, G. (DD; Comoro Islands; bone, tusks, fat; 83.)
- 1925 Cardim, F.
- x 1928 Prater, S.H. (DD; fat, oil, bones; 87.)
- x 1931 Meek, C.K. (TS; Nigeria; virility charm; 304.)
- x 1935 Allen, G.M. (DD; China; tympanic bones; 81.)
- x 1935 Sowerby, A. de C. (DD; China; tympanic bones; 81.)
- 1937 Petit, G.
- x 1938 Wood, T. (DD; oil; for baldness; m53.)
- x 1948 Bessac & Villiers (TS; fat; for baldness & for "strangles" in horses; 189.)
- 1963 Bertram, G.C.L.
- x 1966 Thomas, D. (DD; India; meat, for intestinal disorders & for causing abortion, 80; oil, for dysentery, intestinal ulcers, & piles; 81.)
- x 1967 Jones, S. (DD; India; meat; m218.)
- x 1967 Welsby, T. (DD; Queensland; oil; 1: 102-103, 2: 249-250.)
- x 1968a Bertram & Bertram (DD; Australia; oil; 386, 388.)
- x 1971 Almeida, A. de (DD; use by Australians [in Timor?]; oil; 212.)
- x 1971 Bertram & Bertram (DD; Australia; oil; 146-147.)
- x 1972 Stoddart, D.R. (DD; European use of dugong "stone": 208-209, 214.)
- x 1973 Bertram & Bertram (DD; Sabah, powdered teeth, m308; Queensland, oil, 322.)
- x 1974 Mondolfi, E. (TMM; Venezuela; bones; for asthma; 13.)
- x 1981a Domning, D.P. (*Trichechus*; Brazil; hide, fat, bone; meat considered "unhealthy": 94.)
- x 1981 Marsh et al. (DD; Australia; oil; 260.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; bones; 1011.)
- x 1988 O'Shea et al. (TMM; Venezuela; meat, oil, skin, bones; 293-294.)
- x 1988 Reeves et al. (TS; Nigeria; skin; m80.)
- x 1989a Preen, A. (DD; Arabian region; oil, bones, meat, blood; 97-98, 114-115.)
- Mediterranean Sea (SEE ALSO: Africa; Malta; other countries bordering the Mediterranean)
- x 1930 Aharoni, J. (DD; Palestine; dispersal via Suez Canal; 330.)
- 1945 Anon. (DD; Palestine)
- 1973 Symeonidis & Schultz (Mioc., Crete)
- x 1981d Domning, D.P. (sirs. & marine plants; paleoecology; 419.)
- x 1987 Domning & Thomas (Messinian [Late Mioc.] salinity crisis & sir. paleoecology; 229-230.)
- Mermaid Legend (SEE ALSO: Religious, Superstitious, or Ornamental Use or Observance; Ri)
- x 1796 Stedman, J.G. (Suriname; mermaids & "Watra Mama": 177-178.)
- 1802 Tilesius, W.G.
- x 1809a Cuvier, G. (sir. origin of legend; 280-281.)
- x 1828 Fleming, J. (Britain; sirs. & mermaids; 30.)
- x 1829 Anon. (Shetland Islands; manatee-like animal caught; 57-60.)
- x 1878 Brown, A.E. ("mermaid" [probably a seal] identified as a sir.; 291.)
- x 1893 Anon. (pop. acc.; 800.)
- 1916 Lucas, F.A. (pop. acc.; 315.)
- x 1917 Fairchild, D. (misc. accounts; 340-341.)
- x 1917 Rodway, J. (Guyana; "water mamma": 491, 499.)
- x *1923 Petit, G. (Madagascar; myth; 78-82.)
- x 1924e Petit, G. (sir. origin of legend considered probable; 294-295.)
- x 1926 Cheesman, R.E. (DD; Red Sea; m348.)
- x 1927 Hopwood, A.T. (pop. acc.; 17-18.)
- x 1928 Prater, S.H. (DD; Indian Ocean; legends; 96-97.)
- x 1930 Anon. (pop. acc.; 37-38.)
- x 1930a Simpson, G.G. (pop. acc.; 41-42.)
- x 1935 Barrett, O.W. (Africa; frozen dugong carcass exhibited as mermaid; 219.)
- 1945 Lewis, C.
- x *1951b Burton, M. (sir. origin of legend challenged; 588.)
- 1952 Pires de Lima, F. de C.
- x 1954 Lawrence, J.E. (Florida; pop. acc.; 401.)
- x 1956 Loftin, H. (pop. acc.; 350.)
- x 1957 Burton, M. (sir. origin of legend discounted, in light of manatee behavior; 272.)
- x 1957 Carrington, R. (history of legend, 33-39; sirs., 38-39.)
- x 1957 Gohar, H.A.F. (connection with dugongs considered probable; 46-47.)
- x 1958 Loftin, H. (pop. acc.; 256.)
- x 1958 Savory, B. (Aden; stuffed "mermaids": 255.)
- x 1959 Smith, F.G.W. (connections with sirs.; pop. acc.; 74-82.)
- 1960 Almeida, A. de
- x 1960 Crusz, H. (Sri Lanka; pop. acc.; 300-301.)
- x 1967 Jones, S. (India; reaction of populace to legend; 215.)
- x 1979 Zhang, Z.-m. (China; capture of supposed mermaids [dugongs]; 33-36.)

- x 1985 Greenwell, J.R. ("ri" & possible sir. or cetacean origins of legend; 152-153.)
1989a Kamiya, T.
- Mesosiren* Abel, 1906 (= *Prototherium*)
- x *1906 Abel, O. (n.gen., Late Eoc., Italy, 52-59; comp. w/*Paraliosiren*, 59.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 471, 473, 495, 499.)
- x 1941 Kretzoi, M. (in classification; 154-155.)
- x 1943 Heuvelmans, B. (dentition; 6, 9.)
- x 1945 Simpson, G.G. (syn. of *Prototherium*; m135.)
- x 1978c Domning, D.P. (syn. of *Prototherium*; m575.)
- x 1982 Kleinschmidt, A. (syn. of *Prototherium*; 378-379.)
- Mesosiren dolloi* Abel, 1906 (= *Prototherium veronense*)
- x *1906 Abel, O. (n.gen.n.sp.; Late Eoc., Italy; 52-59.)
- x 1942 Heuvelmans, B. (comp. w/ *Prorastoma veronense*; 1, 4.)
- x 1980 Kordos, L. (nature of type material; 387.)
- Metabolism: SEE Respiration and Diving
- Metaxytheriinae Kretzoi, 1941 (subfamily; = Halitheriinae)
- x *1941 Kretzoi, M. (new subfamily; 155.)
- Metaxytherium* de Christol, 1840
- *1840 Christol, J. de (n.gen.)
- 1840 Serres, M. de
- 1841a Christol, J. de
- 1841b Christol, J. de
- x 1846 Gervais, F.L.P. (France; m264.)
- x 1847b Gervais, F.L.P. (syn. of *Halitherium*; 206-211, 220-221.)
- x 1847 Meyer, H.v. (Otmarsingen, Switzerland; humerus; 189.)
- x 1872a Gill, T. (in classification; 92.)
- x 1875a Owen, R. ("*Metaxytherium*"; m102, m104.)
- x 1886b Hartlaub, C. ("*Metaxytherium*"; m376.)
- x D 1888 Marsh, O.C. ("*Metataxytherium*"; thought related to *Desmostylus*; m96.)
- x 1889b Dollo, L. (comp. w/ *Miosiren*; 416, 418-419, 421.)
- x 1892 Lydekker, R. (syn. of *Halitherium*; 78.)
- x 1893 Howes & Harrison (vertebral epiphyses; m790.)
- 1902c Abel, O.
- x 1902a Osborn, H.F. (m714.)
- *1904a Abel, O.
- x 1904 Freund, L. (carpus, comp. w/ DD, etc.; m394.)
- x 1904a Lorenz, L.v. (pelvis; m3, m6-8.)
- 1905a Abel, O.
- x 1906 Abel, O. (dentition; 51-52.)
- x 1906 True, F.W. (?*Metaxytherium*; Maryland; 835.)
- x 1914 Depéret, C. (comp. w/ *Felsinotherium serresi*; 1858-1859.)
- x 1927 Hopwood, A.T. (Sicily; skeleton in British Museum; 18-19.)
- x 1928 Prater, S.H. (m98.)
- x 1929 Birulia, A.A. ("*Metaxytherium*"; pelvis, comp. w/HG; m88-89.)
- 1931 Glaessner, M.F.
- x *1932a Simpson, G.G. (review; 421-469-474-488, 495-499.)
- x 1941 Kretzoi, M. (in classification; 152, 154-155, pl. 6.)
- x 1942b Kaltenmark, J. (history of name, 102-105; "new species" described but not named, 106-113.)
- x 1943 Kaltenmark, J. ("*Metaxytherium nov. spec.*"; 15-16, 22-24.)
- x 1945 Simpson, G.G. (syn. of *Halianassa*; 135.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 438-441.)
- x 1951 Reinhart, R.H. (m209-210.)
- x 1952 Cañigueral, J. (Mioc., Mallorca; 387-390.)
- x 1952a Koenigswald, G.H.R.v. (comp. w/ *Indosiren*; 611.)
- x 1957 Kellogg & Whitmore (Maryland; paleoecology; 1022.)
- x *1966 Kellogg, R. (comp. w/ *Felsinotherium*, 68; comp. w/ *Halianassa*, 69; review, 70-71.)
- 1969 Calzada, S. (Mioc., Spain)
- x 1970 Shikama & Domning (name preferred over *Halianassa*; 395.)
- x 1971 Ginsburg & Janvier (priority of name; 183-184.)
- x 1972 Barnes, L.G. (Mioc., California; 142.)
- x 1977 Savage & Tewari (Mioc., India; 216-218.)
- x 1977 Whitmore & Gard (comp. w/ HG; 9, 11-12, 16-17.)
- x 1978c Domning, D.P. (phyletic position & occurrence in Africa; 576-579.)
- x 1979 Boaz et al. (Plioc., Libya; 137-139.)
- x 1980 Sanders, A.E. (Olig., South Carolina; tooth; 612.)
- x 1981 Webb et al. (Late Mioc., Love Bone Bed, Florida; 517, 521, 535.)
- x 1982 Domning, Morgan & Ray (comp. w/ Eoc. sirs.; 18, 30, 39.)
- x 1982 Kleinschmidt, A. (distr., 378-380; pelvis, 392.)
- x 1983 Morgan & Pratt (Mioc., Florida; 4, 16-25.)
- 1984 Dolphin, Y.
- x *1987 Domning & Thomas (senior syn. of *Felsinotherium*, 207; descent from *Halitherium*, 207-208, 223-227.)
- x 1987a Domning, D.P. (in ancestry of HG; pop. acc.; 64, 66, 68.)
- x 1987b Domning, D.P. (priority over *Halianassa*; 123.)
- 1988b Pilleri, G. (Mioc., Spain; pathology)
- x 1989b Domning, D.P. (Mioc., Suwannee R., Florida & Georgia; 56-59.)

- x 1989d Domning, D.P. (comp. w/ *Xenosiren yucateca*; 432, 435–436.)
- x 1989 Geraads, D. (Late Mioc., Tunisia; 781, pl. 2.)
- x 1989 Morgan, G.S. (Mioc., Suwannee R., Florida & Georgia; 29, 32–33, 37–39, 43, 46, 50.)
- x 1990a Domning, D.P. (rhizivory experiments with model tusks; 35–36.)
- x 1990b Domning, D.P. (comp. w/ *Corystosiren varguezii*; 363.)
- x 1991 Czyzewska & Radwanski (“*Thalattosiren* (= *Metaxytherium*)”): Middle Mioc., Poland; 184–185, 188.)
- x 1991 Toledo & Domning (cf. *Metaxytherium*; Early Mioc., Brazil; 120–121, 133–134, 137, 142.)
- x 1994a Domning, D.P. (Caribbean; pop. acc.; 72–73.)
- Metaxytherium alleni* (Simpson, 1932) Fondi and Pacini, 1974 (= *Halitherium alleni*)
- x *1974 Fondi & Pacini (n.comb.; comp. w/ *M. forestii*; 45–46.)
- Metaxytherium allisoni* (Kilmer, 1965) Domning, 1971 (= *Dioplotherium allisoni*)
- x *1971a Domning, D.P. (n.comb.; 110.)
- x 1972a Domning, D.P. (distr.; 147, 149.)
- x 1975b Domning, D.P. (feeding ecology; 824.)
- x *1978b Domning, D.P. (referred to *Dioplotherium*; 5.)
- Metaxytherium aquitaniae* Pilleri, 1987
- *1987 Pilleri, G. (n.sp.)
- Metaxytherium arctodites* Aranda-Manteca, Domning, and Barnes, 1994
- *1994 Aranda-Manteca et al. (n.sp.; Middle Mioc., Baja California & California)
- Metaxytherium argoviense* Pilleri, 1987 (unavailable name, proposed conditionally; = *Metaxytherium krahuletzii*)
- *1987 Pilleri, G. (n.sp., proposed conditionally)
- Metaxytherium beaumonti* de Christol in de Blainville, 1844 (nomen dubium)
- *1844 Blainville, H.M.D. de (n.sp.)
- x 1847b Gervais, F.L.P. (m209–210.)
- x 1895 Depéret, C. (m409.)
- 1920 Depéret & Roman
- x 1932a Simpson, G.G. (m475.)
- x 1942b Kaltenmark, J. (m103.)
- x 1965 Kilmer, F.H. (m69.)
- x 1966 Kellogg, R. (m69–70.)
- x 1974 Fondi & Pacini (m45.)
- x 1987 Domning & Thomas (considered nomen dubium; 206, 208.)
- Metaxytherium bellunense* (de Zigno, 1875) Lepsius, 1882 (= *Halitherium bellunense*)
- *1882 Lepsius, G.R. (n.comb.; 180.)
- x 1952 Thenius, E. (m112.)
- Metaxytherium brocchii* (de Blainville, 1844) Laurillard, 1846 (= *Metaxytherium subapenninum*)
- *1846 Laurillard, C.L. (n.comb.)
- Metaxytherium calvertense* Kellogg, 1966 (= *Metaxytherium crataegense*)
- x *1966 Kellogg, R. (n.sp.; Middle Mioc., Maryland; 71–90, pls. 33–43.)
- x 1971 Reinhart, R.H. (m8.)
- x 1972 Varona, L.S. (comp. w/ *M. riveroi*; 10, 14.)
- x 1974 Domning, D.P. (m8.)
- x 1974 Fondi & Pacini (comp. w/ *M. forestii*; 45–46.)
- 1976 Reinhart, R.H. (Florida)
- x 1977 Hooijer, D.A. (comp. w/ *M. cf. medium*; 2, 7–9, 11.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 7, 12, 14, 74.)
- x 1984b Domning, D.P. (pop. acc.; 5.)
- x 1984c Domning, D.P. (comp. w/ sir. from Pamunkey R., Virginia; 224.)
- x 1984 Muizon, C. de (Peru; m171.)
- x 1985 Muizon & DeVries (Peru; m560.)
- x *1985 Muizon & Domning (Mioc., Peru; 189–206, 209–213.)
- 1986b Anon.
- x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 273.)
- x 1987 Bajpai et al. (comp. w/ *M. kachchhense*; 22–23.)
- x 1988 Domning, D.P. (comp. w/ *M. floridanum*; Florida records erroneous; 397, 400–401, 416–418.)
- x 1989b Domning, D.P. (m56, 59.)
- x 1990 Aranda-Manteca, F.J. (“*Metaxytherium cf. M. calvertense*”; Mioc., Baja California; 100, 103–104, 108, 111, pl. 3.)
- x *1990 MacPhee & Wyss (*M. cf. calvertense*; Mioc., Puerto Rico; 21–26, 37–38.)
- x 1992 Hulbert, R.C., Jr. (Florida; in checklist; 29.)
- *1994 Aranda-Manteca et al. (synonymized w/ *M. crataegense*)
- Metaxytherium catalaunicum* Pilleri in Pilleri, Biosca, & Via, 1989 (= *Metaxytherium medium*)
- *1989 Pilleri et al. (n.sp.; Mioc., Spain)
- Metaxytherium christoli* (Fitzinger, 1842) Laurillard, 1846 (= *Halitherium christolii*)
- *1846 Laurillard, C.L. (n.comb.)
- x 1895 Depéret, C. (m409; comp. w/ *M. krahuletzii*, 411.)
- 1902 Schlosser, M.
- x 1914 Depéret, C. (phyletic position; 1861.)

- Metaxytherium cordieri* de Christol in de Blainville, 1844
(= *Metaxytherium medium*)
- *1844 Blainville, H.M.D. de (n.sp.)
- x 1847b Gervais, F.L.P. (m208, 210.)
- x 1942b Kaltenmark, J. (m103, m113.)
- x 1966 Kellogg, R. (m70.)
- x 1987 Domning & Thomas (syn. of *M. medium*; 206.)
- Metaxytherium crataegense* (Simpson, 1932) Aranda-Manteca, Domning, and Barnes, 1994
- *1994 Aranda-Manteca et al. (n.comb.)
- Metaxytherium cuvieri* (de Christol, 1832) de Christol in de Blainville, 1844 (= *Metaxytherium medium*)
- *1844 Blainville, H.M.D. de (n.sp.)
- x 1847b Gervais, F.L.P. (m206, 209–210, 221.)
- x 1919 Gómez Lluca, F. (Mallorca; teeth, vertebra; 54–59, 61, 64, pls. 16–17.)
- 1920 Depéret & Roman
- x 1923a Allen, G.M. (humerus, comp. w/ *M. floridanum*; 233–235.)
- x 1925 Kellogg, R. (comp. w/ *M. jordani*; 58, 63, 67.)
- 1926 Cottreau, J.
- 1928 Cottreau, J.
- x 1931 Sickenberg, O. (pachyostosis & osteosclerosis; 409, 414.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 427, 431–432, 435, 440, 442, 451, 453–454, 456, 468, 475–476, 478–480.)
- x 1941 Gregory, J.T. (comp. w/ *Felsinotherium ossivalense*; 37, 39–40.)
- x 1941 Kretzoi, M. (comp. w/ *Masrisiren*; m152.)
- x 1941a VanderHoof, V.L. (m1985.)
- x 1942b Kaltenmark, J. (m103, m106; comp. w/ "*Metaxytherium* n. sp.," 108–110; 113.)
- x 1943 Kaltenmark, J. (phylogeny; 15–17, 19–21, 23–24.)
- x 1946 Bauzá, J. (Mallorca; tooth; 376, pl. 18.)
- 1947 Lecointre, G.
- x 1949 Colom & Bauzá (Mallorca; teeth; 91–92, pl. 7.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 439, 441.)
- x 1952 Hooijer, D.A. (syn. of *M. medium*; 113–114.)
- x 1952 Thenius, E. (comp. w/ *Thalattosiren*; m111, m113.)
- x 1956 Bataller, J.R. ("*Metaxytherium cuvieri*"; Mioc., Spain; skull; 24–25, pls. 6–8.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 67, 69, 72.)
- x *1966 Kellogg, R. (comp. w/ *Felsinotherium* spp., 68; history of name, 70; comp. w/ *M. calvertense*, 73–74, 78–80, 83–86.)
- x 1971 Ginsburg & Janvier (syn. of *M. medium*; 182–183.)
- x 1974 Fondi & Pacini (comp. w/ *M. forestii*; 44–45.)
- x 1977 Hooijer, D.A. (syn. of *M. medium*; 3.)
- x 1978b Domning, D.P. (syn. of *M. medium*; m12, 14.)
- x 1982c Domning, D.P. (syn. of *M. medium*; m29.)
- x 1987 Bajpai et al. (comp. w/ *M. kachchhense*; 22–23.)
- x 1987 Domning & Thomas (syn. of *M. medium*; 206–208, 210, 230.)
- Metaxytherium floridanum* Hay, 1922
- xv *1915 Matson, G.C. ("manatee": Bone Valley, Florida; first illustration of holotype; pl. 12.)
- x *1922a Hay, O.P. (n.sp.; "Olig." [actually Mioc.], Bone Valley, Florida; 1–4, pl. 1.)
- x *1923a Allen, G.M. (Bone Valley, Florida; additional material; 232–239, pl. 26.)
- x 1925 Kellogg, R. (m59; comp. w/ *M. jordani*, 67–68.)
- x 1926 Allen, G.M. (comp. w/ *M. manigaulti*; 459.)
- x *1932a Simpson, G.G. (comp. w/ other sirs., 421, 467; referred to *Felsinotherium*, 446–447, 496.)
- xv 1959 Kellogg, R. ("manatee": Bone Valley, Florida; m6.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 66.)
- x 1966 Kellogg, R. (comp. w/ *M. calvertense*; 79.)
- x 1971 Reinhart, R.H. (m8.)
- x 1974 Fondi & Pacini (m45–46.)
- 1976 Reinhart, R.H.
- xv 1982b Domning, D.P. (comp. w/ *Potamosiren*, 602; tooth wear, 614.)
- x 1983 Morgan & Pratt (Bone Valley, Florida; 19, 24–25.)
- x 1985 Muizon & Domning (comp. w/ *M. calvertense*; 192, 205–206.)
- x 1987 Bajpai et al. (comp. w/ *M. kachchhense*; 22–23.)
- x 1987 Domning & Thomas (comp. w/ *M. serresii*; 213.)
- x *1988 Domning, D.P. (revision; 395–426.)
- x 1989b Domning, D.P. (m56.)
- x 1989c Domning, D.P. (comp. w/ *Dioplotherium manigaulti*; 420.)
- x 1990 MacPhee & Wyss (comp. w/ *M. cf. calvertense*; 25.)
- x 1992 Hulbert, R.C., Jr. (Florida; in checklist; 29.)
- Metaxytherium forestii* (Capellini, 1872) Fondi and Pacini, 1974 (= *Metaxytherium subapenninum*)
- x *1974 Fondi & Pacini (n.comb.; Plioc., Italy; 37–53, pls. 43–46.)
- x 1982c Domning, D.P. (comp. w/ *M. serresii*; 29–31.)
- x 1985a Domning, D.P. (biochronological utility; 183.)
- x 1987 Canocchi, D. (comp. w/ *M. gervaisi* & *M. serresii*; 499–508.)
- x *1987 Domning & Thomas (phylogeny; comp. w/ *M. serresii*; 208–209, 211–217, 220–230.)
- *1988a Pilleri, G. (synonymized with *M. subapenninum*)
- Metaxytherium fossile* (Holl, 1829) Depéret, 1895 (= *Metaxytherium medium*)
- x *1895 Depéret, C. (n.comb., 409; comp. w/ *M. krahuletzki*, 411–412.)

- x 1914 Depéret, C. (comp. w/ *Felsinotherium serresi*; 1858–1859, 1861.)
- x 1919 Gómez Llueca, F. (syn. of *M. Cuvieri*; 54.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 439, 441.)

Metaxytherium gastaldi (de Zigno, 1878) Fondi and Pacini, 1974 (= *Metaxytherium subapenninum*)

- x *1974 Fondi & Pacini (n.comb.; comp. w/ *M. forestii*; 45–47.)
- x 1987 Domning & Thomas (syn. of *M. forestii*; 208, 223.)

Metaxytherium gervaisi (Capellini, 1872) Fondi and Pacini, 1974 (= *Metaxytherium subapenninum*)

- x *1974 Fondi & Pacini (n.comb.; comp. w/ *M. forestii*; 45–46.)
- x *1987 Canocchi, D. (Early Plioc., Italy; 497–513.)
- x 1987 Domning & Thomas (syn. of *M. forestii*; 208.)

Metaxytherium guettardi (de Blainville, 1844) Laurillard, 1846 (= *Halitherium schinzii*)

- *1846 Laurillard, C.L. (n.comb.)
- x 1889 Lefèvre, T. (Olig., Belgium; 199.)
- x 1942b Kaltenmark, J. (supposedly “new” combination; 113.)
- x 1943 Kaltenmark, J. (phylogeny; 22–23.)

Metaxytherium jordani Kellogg, 1925 (= *Dusisiren jordani*)

- x *1925 Kellogg, R. (n.sp.; Late Mioc., California; 59–70, pls. 9–11.)
- x 1932a Simpson, G.G. (m422, 454, 488, 496.)
- x 1941a VanderHoof, V.L. (?syn. of *M. petersi*; m1985.)
- x 1966 Kellogg, R. (comp. w/ *M. calvertense*, 84; comp. w/ *Rytiodus*, 92.)
- x 1970 Shikama & Domning (comp. w/ Japanese Plioc. *Hydrodamalis* sp.; 390, 393, 395.)
- x 1971a Domning, D.P. (m110.)
- x 1971b Domning, D.P. (evolution; 217–220.)
- x 1972a Domning, D.P. (evolution & distr.; 147–149.)
- x 1974 Fondi & Pacini (m45.)
- x 1975 Domning & Frye (pathology; 1–3, pl. 1.)
- x 1977b Domning, D.P. (phyletic position & role in North Pacific paleoecology; 354, 356–358, 360.)
- x 1977 Whitmore & Gard (m3.)
- x *1978b Domning, D.P. (referred to *Dusisiren*; 2, 21.)
- x 1980 Kurtén & Anderson (m341.)
- x 1981 Clark, J.C. (Late Mioc., Santa Cruz, Calif.; 34.)
- x 1982 Kleinschmidt, A. (m378–379.)
- x 1987a Domning, D.P. (m66.)

Metaxytherium kachchhense Bajpai, Singh, and Singh, 1987

- x *1987 Bajpai et al. (“*M. kachchhensis*”; n.sp.; Early Mioc., India; 20–25.)

Metaxytherium krahuletzii Depéret, 1895

- x *1895 Depéret, C. (n.sp.; Early Mioc., Austria; 408–412, 415, pl. 2.)
- *1904a Abel, O.
- x 1904a Lorenz, L.v. (pelvis; m1.)
- x 1914 Depéret, C. (phyletic position; m1861.)
- x 1922a Hay, O.P. (comp. w/ *M. floridanum*; 3.)
- x 1923a Allen, G.M. (humerus, comp. w/ *M. floridanum*; 233, 235.)
- x 1925 Kellogg, R. (comp. w/ *M. jordani*; 67–68.)
- x 1931 Sickenberg, O. (pachyostosis & osteosclerosis, 409, 414; not a syn. of *M. studeri*, 428.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 451, 453, 458, 468, 475, 478.)
- x 1943 Kaltenmark, J. (phylogeny; 20–21.)
- x 1944 Zbyszewski, G. (humerus, comp. w/ *M. petersi*; m72.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 439, 441.)
- x 1952 Thenius, E. (comp. w/ *Thalattosiren*; m111–113.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 68–69.)
- x 1966 Kellogg, R. (m69; comp. w/ *M. calvertense*, 83.)
- x *1971 Daxner-Höck, G. (Early Mioc., Eggenburg region, Austria; 764–765, pls. 3–4.)
- x 1974 Fondi & Pacini (comp. w/ *M. cuvieri*; 45.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 12, 14, 29, 73–74.)
- x 1985a Domning, D.P. (biochronological utility; 183.)
- x 1985 Muizon & Domning (comp. w/ *M. calvertense*; 205–206, 210–211.)
- 1986 Pervesler & Steininger
- x 1987 Bajpai et al. (comp. w/ *M. kachchhense*; 22–23.)
- x *1987 Domning & Thomas (phylogeny; comp. w/ *M. serresii*; 207–208, 220–227, 229.)
- x 1987b Domning, D.P. (?syn. of *Halianassa studeri* of Studer; 123.)
- x 1988 Domning, D.P. (comp. w/ *M. floridanum*; 400, 415, 417.)
- x 1991 Pervesler & Roetzel (Mioc., Eggenburg region, Austria; pop. acc.; 97–101.)

Metaxytherium krahuletzii excelsum Pilleri, 1987

- *1987 Pilleri, G. (new subspecies; 16.)

Metaxytherium lovisati Capellini, 1886 (nomen dubium)

- *1886a Capellini, G. (n.sp.)
- x 1887 Flot, L. (syn. of *Halitherium fossile*; 137.)
- x 1895 Depéret, C. (m409.)
- x 1923a Allen, G.M. (vertebrae, comp. w/ *M. floridanum*; 235–236.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 464.)
- x 1974 Fondi & Pacini (m45.)
- x 1987 Domning & Thomas (?syn. of *M. medium*; 208.)

- Metaxytherium manigaulti* (Cope, 1883) Allen, 1926 (= *Dioplotherium manigaulti*)
- xv *1925 Kellogg, R. (referral to *Metaxytherium* proposed but new combination not used; 59.)
- x *1926 Allen, G.M. (n.comb.; review; 458–459, pls. 2–3.)
- x 1932a Simpson, G.G. (history of study; 421, 445.)
- x *1966 Kellogg, R. (review; 92.)
- x 1974 Fondi & Pacini (comp. w/ *M. forestii*; 45–46.)
- x 1978b Domning, D.P. (syn. of *Dioplotherium manigaulti*; m11.)
- x 1989c Domning, D.P. (syn. of *Dioplotherium manigaulti*; 415–417.)
- Metaxytherium medium* (Desmarest, 1822) Hooijer, 1952
- x *1952 Hooijer, D.A. ("*M. medius*," n.comb.; 114.)
- x *1966 Kellogg, R. (review, 70; comp. w/ *M. calvertense*, 78–80, 84–86.)
- x *1971 Ginsburg & Janvier (Middle Mioc., France; 161, 182–191.)
- x 1974 Fondi & Pacini (m45.)
- x *1977 Hooijer, D.A. ("*M. cf. medium*"; Mioc., Netherlands; 1–25.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 7, 12–14.)
- x 1979 Ginsburg et al. (Middle Mioc., Doué, France; 224, 226.)
- 1979 Telles-Antunes, M. (Portugal)
- x 1982c Domning, D.P. (comp. w/ *M. serresii*; 29–31.)
- x 1982 Hooijer, D.A. (comp. w/ rib from Netherlands; 261.)
- x 1985a Domning, D.P. (biochronological utility; 183.)
- x 1985 Muizon & Domning (phyletic position; 211.)
- x *1987 Domning & Thomas (phylogeny; comp. w/ *M. serresii*; 206–209, 212–218, 220–230.)
- 1987 Moncharmont Zei & Moncharmont (Italy)
- x 1988 Domning, D.P. (comp. w/ *M. floridanum*; 400, 403, 411, 413–415, 417–418.)
- x 1989 Geraads, D. (comp. w/ *Metaxytherium* sp. from Tunisia; 781, 791.)
- Metaxytherium meyeri* Abel, 1904 (nomen dubium)
- *1904a Abel, O.
- x 1932a Simpson, G.G. (m475.)
- x 1952 Thenius, E. (m113.)
- x 1974 Fondi & Pacini (m45.)
- x 1987 Domning & Thomas (considered nomen dubium; 207–208.)
- Metaxytherium ortegense* Kellogg, 1966 (= *Potamosiren magdalenensis*)
- x *1966 Kellogg, R. (n.sp.; Mioc., Colombia; 92–94, pl. 36.)
- x 1974 Fondi & Pacini (m45–46.)
- x 1978b Domning, D.P. (comp. w/ *Dusisiren*; 43, 74.)
- x 1982b Domning, D.P. (comp. w/ *Potamosiren*; 602, 612.)
- x 1985 Muizon & Domning (comp. w/ *M. calvertense*; 205.)
- x 1990b Domning, D.P. (comp. w/ *Corystosiren varguezii*; 370.)
- Metaxytherium ossivallense* (Simpson, 1932) Reinhart, 1971 (= *Metaxytherium floridanum*)
- x *1971 Reinhart, R.H. ("*M. ossivallense*"; n.comb.; m8.)
- x 1974 Fondi & Pacini (m45–46.)
- 1976 Reinhart, R.H.
- x 1985 Muizon & Domning (syn. of *M. floridanum*; m205.)
- x 1987 Bajpai et al. (comp. w/ *M. kachchhense*; 22–23.)
- x *1988 Domning, D.P. (synonymized with *M. floridanum*; 399–401, 416, 421.)
- Metaxytherium pergense* Toula, 1899 (= *Halitherium christolii*)
- *1899 Toula, F. (n.sp.)
- x 1973 Spillmann, F. (syn. of *Halitherium pergense*; 197–200.)
- Metaxytherium petersi* Abel, 1904 (= *Thalattosiren petersi*)
- *1904a Abel, O. (n.sp.)
- x 1904a Lorenz, L.v. (pelvis; m1.)
- x 1917 Schréter, Z. (Mioc., Hungary; 176–177.)
- x 1923a Allen, G.M. (m233.)
- x 1926 Allen, G.M. (comp. w/ *M. manigaulti*; m459.)
- *1928 Sickenberg, O. (referred to *Thalattosiren*)
- x 1931 Sickenberg, O. (pachyostosis & osteosclerosis; 409, 414.)
- x 1932a Simpson, G.G. (m443.)
- 1934 Pia & Sickenberg
- 1938 Suklje, F.
- x 1941 Kretzoi, M. (Hungary; m146.)
- x 1941a VanderHoof, V.L. (Late Mioc., Santa Cruz, California [erroneous record]; 1984–1985.)
- x 1943 Kaltenmark, J. (m23.)
- x 1944 Zbyszewski, G. ("*Metaxitherium Petersi*"; Mioc., Portugal; 69–72.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 439, 441.)
- x 1952 Thenius, E. (syn. of *Thalattosiren petersi*; 32, 109.)
- x 1977 Hooijer, D.A. (comp. w/ *M. cf. medium*; 2, 4, 12.)
- x 1978b Domning, D.P. (supposed California specimen referred to *Dusisiren jordani*; 21.)
- Metaxytherium riveroi* Varona, 1972 (= *Metaxytherium crataegense?*)
- x *1972 Varona, L.S. (n.sp.; Middle Mioc., Cuba; 6–19.)
- x 1974 Domning, D.P. (m8.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 14, 74.)

- x 1985 Muizon & Domning (comp. w/ *M. calvertense*; 205.)
- x 1990 MacPhee & Wyss (syn. of *M. calvertense*; 24–25.)
- Metaxytherium serresii* (Gervais, 1849) Depéret, 1895
- x *1895 Depéret, C. (n.comb., 409; comp. w/ *M. krahuletzii*, 411–412.)
- x 1942b Kaltenmark, J. (m103.)
- x 1974 Fondi & Pacini (comp. w/ *M. forestii*; 45–47.)
- x 1978c Domning, D.P. (occurrence in Africa; 577.)
- xv 1982 Boaz & Cramer (Plioc., Libya; pop. acc.; 37, 40–41.)
- x 1982c Domning, D.P. (Plioc., Libya; 29–32.)
- x 1985a Domning, D.P. (biochronological utility; 183.)
- x 1987 Canocchi, D. (comp. w/ *M. gervaisi* & *M. forestii*; 499, 505–508.)
- x *1987 Domning & Thomas (Plioc., Libya & France; morphology, systematics, phylogeny, & paleoecology; 205–232.)
- 1987 Pilleri, G.
- x 1988 Domning, D.P. (comp. w/ *M. floridanum*; m411.)
- 1988c Pilleri, G.
- x 1989 Geraads, D. (comp. w/ *Metaxytherium* sp. from Tunisia; 781, 791.)
- Metaxytherium studeri* (von Meyer, 1838) Depéret, 1895 (= *Metaxytherium krahuletzii*)
- x *1895 Depéret, C. (n.comb.; 409.)
- 1904a Abel, O.
- x 1931 Sickenberg, O. (suppression of replacement pre-molars; distinctness from *M. krahuletzii*; 428.)
- 1987 Pilleri, G.
- Metaxytherium subapenninum* (Bruno, 1839) Fondi and Pacini, 1974
- x *1974 Fondi & Pacini (n.comb.; m44–46.)
- x 1987 Domning & Thomas (considered nomen dubium; 208–209.)
- *1988a Pilleri, G.
- Metaxytherium vanderhoofi* (Reinhart, 1959) Shikama and Domning, 1970 (= *Dusisiren jordani*)
- x *1970 Shikama & Domning (n.comb.; 395.)
- x 1974 Fondi & Pacini (comp. w/ *M. forestii*; 45–46.)
- x *1978b Domning, D.P. (synonymized with *Dusisiren jordani*; 21.)
- x 1982 Kleinschmidt, A. (m378–379.)
- Mexico (SEE ALSO: Baja California; Central America)
- 1566 SEE Landa, D. de, 1941.
- 1859 Beltran, P. (TMM; Yucatan; hunting)
- x 1882 Sumichrast, F. (TMM; 213.)
- x 1887 Roviroso, J.N. (TMM; Tabasco; 356–358.)
- 1887 Shufeldt, R.W. (TMM; Coatzacoalcos R.)
- 1917 Gaumer, G.F. (TMM; Yucatan; in caves)
- x 1920 Goldman, E.A. (TMM; Bay of Campeche; 69.)
- x 1932 Müllerried, F.K.G. (indeterminate sir.; Olig., Chiapas; 71–73.)
- 1932 Noyes, E. (TMM; Yucatan)
- x 1932 Sokoloff & Caballero (TMM; Tampico; trematode *Schizamphistoma manati*; 163, 167.)
- x *1941a Gunter, G. (“TML”: 61, 64.)
- x 1941b Gunter, G. (“TML”: 12–13.)
- x *1941 Landa, D. de (TMM; Yucatan; hunting, 16th century; 190–191.)
- 1950 Durand, J.
- x 1953 Maldonado-Koerdell, M. (indeterminate sir.; Olig., Chiapas; 146–148.)
- x 1957 Pollock & Ray (Mayapan; carved manatee rib; 644, 653.)
- 1958 Ingles, L.G.
- 1962 Proskouriakoff, T. (TMM; Yucatan)
- x 1963 Alvarez, T. (“TML”: “probably extirpated” from Tamaulipas; 465.)
- 1963 Hall & Dalquest
- 1964 Wauchope, R. (TMM; Yucatan)
- 1965 Jones & Lawlor (TMM; Cozumel)
- x *1965 Lluch B., D. (TMM; natural history; 408–419.)
- 1970 Philip & Fisher
- 1971 Lange, F.W.
- 1975 Genoways & Jones (TMM; Yucatan)
- 1975 Wing, E.S. (TMM; Quintana Roo)
- 1977 Wing, E.S. (TMM; Veracruz)
- x 1978 Campbell & Gicca (TMM; status & distr.; 257–264.)
- x 1981 Villa-R. & Colmenero-R. (TMM; southeastern Mexico; status survey; 703–707.)
- x 1982 Wing & Reitz (TMM; Yucatan, Veracruz; at archeological sites; 16, 24.)
- 1983 Gallo R., J.P. (TMM)
- x 1984 Colmenero-R., L.C. (TMM; status & distr.; 243–254.)
- x *1986 Colmenero-R. & Hoz-Z. (TM; distr., status, ecology, conservation; 955–1020.)
- x 1986 Colmenero-R., L.C. (TMM; Tabasco; diet, seasonal movements, & seasonal breeding; 589–602.)
- 1989b Colmenero-R., L.C. (TMM; Quintana Roo; 1–24.)
- x *1989d Domning, D.P. (*Xenosiren yucateca*, n.gen.n.sp.; Mioc. or Plioc., Yucatan; 429–430.)
- x 1989 Lazcano-B. & Packard (TMM; Tamaulipas; 202–205.)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 579–580, 605.)
- 1990 Colmenero-R. & Zárate (TMM; Quintana Roo)
- x *1990b Domning, D.P. (*Corystosiren varguezi*, n.gen.n.sp.; Plioc., Yucatan; 361–362.)
- 1991 Colmenero-R., L.C. (TMM; recovery plan)

- 1991 Morales V. & Olivera G. (TMM; Quintana Roo)
- 1992 Morales V. & Olivera G. (TMM; gen. acc.) x
- 1993 Zárate B., E. (TMM; Quintana Roo) x
- Migration and Movements (SEE ALSO: Behavior, Aggregative; Behavior, Shelter-seeking; Locomotion; Temperature, Effects of) x
- x 1820 Diard & Duvaucel (DD; Singapore; occurrence during northern monsoon; 160.) x
- x 1857 Shaw, N. (TS; Benué R.; rainy-season occurrence; 99.) x
- x 1877 De Pourtales, L.F. (TM; supposed former migrations between Florida & West Indies; 144.) x
- x 1882 Sumichrast, F. (TMM; Mexico; ascending rivers during flood season; 213.) x
- x 1883 Moloney, C.A. (TS; Gold Coast; seasonal movements; 28.) x
- x 1895 Veríssimo, J. (TI; Brazil; seasonal movements into & out of lakes; 35.) x
- x 1904 Allen, J.A. (TMM; Colombia; entering rivers at high water; 423.) x
- x 1915 Seale, A. (DD; Philippines; rainy-season occurrence; m215.) x
- x 1933 Jobim, A. (TI; Brazil; daily movements in & out of lakes; 142-143.) x
- x 1935 Barrett, O.W. (TMM; Puerto Rico & Central America; 216.) x
- x 1941 Hamilton, W.J., Jr. (TML; Florida; ?seasonal movements; 691.) x
- x *1944 Pereira, M.N. (TI; Brazil; entering black waters, 27, 45, 56; in flooded forests in winter, 51; under floating meadows in summer, 56-57.) x
- x 1948 Bessac & Villiers (TS; Senegal; entering lakes in rainy season, ascending rivers in dry season; 188.) x
- x 1949 Sanderson, I.T. (TMM; Suriname; rainy-season movements; 781.) x
- x 1951a Moore, J.C. (TML; Florida; seasonal movements; 11-12, 15, 18.) x
- x *1956 Moore, J.C. (TML; Miami, Florida; residence; 7-10, 22.) x
- x 1964a Bertram & Bertram (TMM; Guyana; migration, m117; homing, 119.) x
- x 1964 Johnson, D.H. (DD; Arnhem Land, Australia; movements with tide; 507.) x
- x *1965 Layne, J.N. (TML; Florida; seasonal migration; 167-168.) x
- x *1965 Lluch B., D. (TMM; Mexico; entering rivers & lakes in rainy season; 411-414.) x
- x 1966 Funaioli & Simonetta (DD; Somali Republic; rainy-season occurrence; m317.) x
- x 1966 Jarman, P.J. (DD; Kenya; 84.) x
- x 1966 Thomas, D. (DD; India; hunted, Nov.-Feb.; young not coming as close inshore as adults; movements during monsoon; 80-81.) x
- 1967 Jones, S. (DD; India; population mixing; 216.) x
- 1967 Welsby, T. (DD; Queensland; coastwise movements; 1: 104.) x
- 1969 Hartman, D.S. (TML; Florida; 350, 353.) x
- 1970a Bertram & Bertram (DD; Sri Lanka; no evidence concerning movements; m54.) x
- 1971 Hughes & Oxley-Oxland (DD; Mozambique; rainy-season abundance; 301.) x
- 1971 Kingdon, J. (DD; East Africa; seasonal occurrence; 395-397.) x
- 1972 Dupuy, A.R. (TS; ascending rivers at flood time; 780.) x
- 1972 Heinsohn, G.E. (DD; Australia; no seasonal patterns, 207; individual movements, 211.) x
- *1974a Hartman, D.S. (TML; Florida; seasonal movements, 8-30, 204-209; movements in search of food, 31-37; in search of fresh water, 37-41; movement patterns described by county, 63-201.) x
- 1974 Heinsohn & Spain (DD; Queensland; after cyclone; 151.) x
- 1974 Mondolfi, E. (TMM; Venezuela; ascending rivers in rainy season; 12, 14-15.) x
- 1976 Heinsohn & Wake (DD; Australia; aerial survey of movements; 17-18.) x
- 1976 Ligon, S.H. (DD; Australia; possible movements; 582.) x
- 1976 Loveland, F.O. (TMM; Nicaragua; moving between salt & fresh water; 70, 74.) x
- 1976 Paz & Ilani (DD; in northern Red Sea only in June & July; 74.) x
- 1976 Webb, S.D. (*Trichechus*; immigration to North America in Plioc.; 221, 223, 226.) x
- 1977 Heinsohn et al. (DD; Australia; 239-240.) x
- 1977 Lovisek, J. (TI; Brazil; entering flooded forest; 64.) x
- *1978 Anderson & Birtles (DD; Queensland; movements with tide; 8-9, 19.) x
- 1978 Anderson & Heinsohn (DD; Australia; 16-20.) x
- 1978 Husson, A.M. (TMM; Suriname; possible seasonal movements; 336.) x
- *1978 Irvine & Campbell (TML; Florida; seasonal movements; 615-616.) x
- 1979 Anderson, P.K. (DD; travel routes, ?home range, seasonal migrations, open-water travel; 140-141.) x
- *1979 Hartman, D.S. (TML; Florida; diurnal & seasonal movements, 17-35, 41-43; exploratory activity, 35-36.) x
- 1980 Belitsky & Belitsky (TMM; Dominican Republic; 317.) x
- 1981a Anderson, P.K. (DD; patterns of habitat use; 640-642.) x

- x 1981 Brownell et al. (DD; Palau; local movements; 32-33.)
- x 1981 Hendrokusumo et al. (DD; Indonesia; seasonal occurrence; 14, 17.)
- x 1981 Marsh et al. (DD; Wellesley Islands, Queensland; seasonal movements; 261-264.)
- x 1981 Montgomery et al. (TI; Brazil; radiotracking & habitat use; 82-84.)
- x 1981 Nietschmann & Nietschmann (DD; Torres Strait; movements with tide; 56-60.)
- x 1981 Reynolds, J.E., III (TML; Blue Lagoon, Florida; not affected by tides; 235, 237.)
- x 1981 Villa-R. & Colmenero-R. (TMM; Mexico; seasonal occurrence; 703.)
- x 1982a Anderson, P.K. (DD; Shark Bay, Australia; local movements; 76, 80, 82-83.)
- x 1982b Anderson, P.K. (DD; Shark Bay, Australia; local movements; 92-93, 96.)
- x 1982 Barnett & Johns (DD; Queensland; movements correlated with tides; 521.)
- x 1982 Bengtson, J.L. (TML; St. Johns R., Florida; seasonal movements; 4668.)
- x 1982 Rathbun et al. (TML; U.S.A. north of Florida; seasonal movements; 153, 163.)
- x 1982 Robineau & Rose (DD; Djibouti; possible daily movements; 236.)
- x 1983 Best, R.C. (TI; Brazil; moving between lakes & rivers; 63.)
- x 1983 Kinnaird & Valade (TML; Florida; local & long-distance movements; 6, 9, 13-14.)
- x 1983a Kinnaird, M.F. (TML; northeastern Florida; seasonal movements; 16-17, 32-34, 44, 47-48.)
- x 1983 Kochman et al. (TML; Crystal R., Florida; seasonal & diurnal movements; 92, 108, 114-121.)
- x 1983 Rathbun et al. (TMM; Honduras; entering rivers in rainy season; 306.)
- x 1983a Shane, S.H. (TML; Florida; seasonal movements; pop. acc.; 40-44.)
- x 1983b Shane, S.H. (TML; Brevard Co., Florida; seasonal movements; 1-9.)
- x 1983 Tiedemann, J.A. (TML; Turkey Creek, Florida; 3, 6.)
- 1984b Anderson, P.K. (DD; Shark Bay, Australia)
- x 1984c Anderson, P.K. (DD; Queensland; movements with tide; 39-40.)
- x 1984 Colmenero-R., L.C. (TMM; Mexico; seasonal movements; 246-249.)
- x 1984 Irvine & Scott (TML; Florida; sonic & radio tracking; 19-24.)
- x 1984 Nietschmann, B. (DD; Torres Strait; responses to tides & weather; 640.)
- x 1984 Powell & Rathbun (TML; northwestern Florida; seasonal movements; 10-25.)
- x 1985 Kochman et al. (TML; Crystal R., Florida; seasonal movements; 921-924.)
- x *1986a Anderson, P.K. (DD; Shark Bay, Australia; seasonal movements; 480-489.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; seasonal movements; 977, 1007-1008.)
- x 1986 Colmenero-R., L.C. (TMM; Mexico; seasonal movements; 594-595, 597.)
- x 1986 Packard & Wetterqvist (TML; northwestern Florida; habitat use; 286-293, 296-299, 302.)
- x 1986 Timm et al. (TI; Ecuador; seasonal movements; 151, 155.)
- x 1987 Estrada & Ferrer (TMM; abundance in western Cuba not seasonal; 4.)
- x 1988 Marsh, H. (DD; Australia; radiotracking; 11-14.)
- x 1988 McClenaghan & O'Shea (TML; Florida; gene flow; 485-486.)
- x 1988 O'Shea et al. (TMM; Venezuela; seasonal movements doubtful; 290-291, 297-298.)
- x 1988a O'Shea, T.J. (TML; Florida; seasonal movements; 185-188.)
- x 1988 Provancha & Provancha (TML; Banana R., Florida; seasonal movements; 334-335.)
- x 1988 Reeves et al. (TS; Sierra Leone; seasonal movements; 78.)
- x 1989 Lazcano-B. & Packard (TMM; northern Mexico; ?seasonal north-south movements; m202.)
- x 1989 Leatherwood & Reeves (DD; Sri Lanka; seasonal movements; 83.)
- x 1989 Reid & O'Shea (TML; Florida & Georgia; satellite tracking; 220-221, 227, 230.)
- x *1990 Marsh & Rathbun (DD; Queensland; radio & satellite tracking; 86-98.)
- x 1990 Rathbun et al. (TML; northwestern Florida; seasonal & individual movements; 4-33.)
- x 1991 Bradley, J.J. (DD; Sir Edward Pellew Islands, Australia; migratory path; 92-93.)
- x *1991 Reid et al. (TML; Florida; 180-190.)
- Milk (SEE ALSO: Behavior, Epimeletic; Behavior, Ingestive)
- x 1763 Bellin, S. (TMM; Guianas; milk "extremely thick": m66.)
- x 1872a Murie, J. (TMM; mammary gland; 188-189.)
- x 1899 Steller, G.W. (HG; mammary gland & milk; 189.)
- x 1906 Annandale, N. (DD; milk secretion; m240.)
- x 1944 Pereira, M.N. (TI; fat of mother whiter during lactation; 60.)
- x 1972 Heinsohn, G.E. (DD; milk found in calf's stomach; 210.)
- x *1979 Bachman & Irvine (TML; milk composition; 873-878.)
- x 1981 Asper & Searles (TML; artificial formula; 126-127.)
- x 1981 Best, R.C. (review of natural milk & artificial

- formulas; 18, 21.)
- x 1981 Cardeilhac et al. (TML; artificial formula; 141-146.)
- x 1981 Elliott et al. (DD; artificial formula; 204.)
- x 1981 Zeiller, W. (TML; artificial formula; 105-106.)
- x *1982 Best, Ribeiro et al. (TI; artificial formula; 263-267.)
- x 1984 Marsh, Heinsohn & Channells (DD; lactation; 746-747, 764.)
- x 1984 Marsh, Heinsohn & Marsh (DD; lactation; 773, 776, 783.)
- x *1986a Pervaiz & Brew (TML; whey proteins; 846-854.)
- x *1986b Pervaiz & Brew (TML; milk composition; 357-360.)
- x 1987 Colares et al. (TI; artificial formulas; 40-41.)
- x 1990 Colares et al. (TI; artificial formula; 44.)
- 1990 Spotte, S. (TML; artificial formula)
- Miocene
- x 1835 Jäger, G.F. (indeterminate sir.; Germany; 3-4, pl. 9.)
- x 1837 Meyer, H.v. (*Manatus Studeri*, nomen nudum; Switzerland; 677.)
- x 1856b Leidy, J. (*Manatus antiquus*, n.sp.; New Jersey, Virginia, South Carolina; 165.)
- x 1861 Nordmann, A.v. (*Manatus maeoticus*; Bessarabia; 581-582, pl. 11.)
- x 1866 Adams, A.L. (*Halitherium*; Malta; 595.)
- x 1866 Lartet, E. (*Rytiodus*, France, 673-674; other sirs. of Garonne Basin, 683-684.)
- x 1867 Peters, K.F. (*Halitherium Cordieri*; Austria; 309-314, pl. 7.)
- x 1870 Delfortrie, E. (*Halitherium*; France; bones scarred by fish teeth; 261.)
- x 1871 Farge, E. (*Halitherium*; Middle Mioc., France; 265-268.)
- x 1872 Farge, E. (*Halitherium*; Middle Mioc., France; 412-416.)
- x 1873 Leidy, J. (*Manatus inornatus*, n.sp.; ?Mioc., South Carolina; 336-337, pl. 37.)
- x 1874 Flower, W.H. (*Halitherium canhami*; England; 1-7, pl. 1.)
- 1875a Zigno, A. de (*Halitherium*; Isthmus of Suez)
- x 1879 Adams, A.L. (*Halitherium*; Malta; 525-527, pl. 25.)
- 1881 Maureta & Thos (*Metaxytherium*; Spain)
- x 1883 Cope, E.D. (*Dioplotherium manigaulti*, n.gen.n.sp.; South Carolina; 52-54.)
- x 1887 Flot, L. (*Prohalicore dubaleni*, n.gen.n.sp.; France; 138.)
- xD 1888 Marsh, O.C. (*Desmostylus hesperus*, n.gen.n.sp.; California; 94-96.)
- x 1889b Dollo, L. (*Miosiren kocki*, n.gen.n.sp.; Belgium; 415-416.)
- x 1895 Depéret, C. (*Metaxytherium krahuletzki*, n.sp.; Early Mioc., Austria; 408, 415.)
- xD 1902 Yoshiwara & Iwasaki ([*Desmostylus*]; Japan; 1-2.)
- x 1904 Case, E.C. (*Trichechus giganteus*; Maryland; 56-57, pl. 26.)
- xD 1906 Merriam, J.C. (*Desmostylus*; California; 151-152.)
- x 1906 True, F.W. (?*Metaxytherium*; Maryland; 835, 840, pl. 76.)
- xD 1911 Merriam, J.C. (*Desmostylus*; 404-407.)
- x 1913 Matson & Sanford ("manatees"; Bone Valley, Florida; m146.)
- x 1915 Matson, G.C. ([*Metaxytherium floridanum*]; Bone Valley, Florida; pl. 12.)
- x 1917 Palmer, W. (Maryland; 344.)
- x 1917 Schréter, Z. (*Metaxytherium petersi*; Hungary; 176-177.)
- x 1919 Gómez Lluca, F. (*Metaxytherium Cuvieri*; Middle Mioc., Mallorca; 54-59, 61, 64.)
- xD 1922 Hannibal, H. (*Desmostylus*; California, Oregon, Japan; 238-240.)
- x 1922a Hay, O.P. (*Metaxytherium floridanum*, n.sp.; Florida; 3.)
- x 1923a Allen, G.M. (*Metaxytherium floridanum*; Florida; 231-238.)
- 1924 Campana, D. del (Italy)
- x 1925 Kellogg, R. (*Metaxytherium jordani*; California; 60.)
- x 1927 Collignon & Cottreau (*Halitherium*; Madagascar; 138, 164-165, 169.)
- x 1927 Hopwood, A.T. (*Metaxytherium*; Sicily; 18.)
- x 1929c Simpson, G.G. ([*Hesperosiren*]; Florida; 511, 518.)
- xD 1931 Kellogg, R. (desmostylians, 219-227; *Desmostylus*, Washington, 226.)
- x 1931 Simionescu, I. (*Manatus maeoticus*; Romania; 146, 155.)
- x 1932a Simpson, G.G. (*Hesperosiren crataegensis*, n.gen.n.sp., *Felsinotherium ossivallense*, n.sp., Florida; 425-426, 445-446, 469, 499.)
- xD 1933 Hanna, G.D. (*Desmostylus*; California; 291.)
- x 1935 Dartevelle, E. (?*Halitherium*; Congo; 715-720.)
- xD 1937a Nagao, T. (*Desmostylus minor*, n.sp.; Sakhalin; 46-49.)
- xD 1937b Nagao, T. (*Desmostylella typica*, n.gen.n.sp.; Honshu, Japan; 82-85.)
- xD 1937c Nagao, T. (*Desmostylus minor*; Hokkaido, Japan; 110-113.)
- x 1941a VanderHoof, V.L. (*Metaxytherium petersi*; California; 1985.)
- x 1942 Macarovici & Oescu (*Manatus maeoticus*; Bessarabia; 351, 353, 378-379.)
- xD 1944 Stenzel & Turner (?*Desmostylus*; Texas; 289.)
- x 1944 Zbyszewski, G. (*Metaxytherium petersi*; Portugal; 69.)

- x 1946 Bauzá, J. (*Metaxytherium cuvieri*; Mallorca; 376, pl. 18.)
- xD 1949b Anon. (desmostylian; California; 313.)
- x 1949 Colom & Bauzá (*Metaxytherium cuvieri*; Mallorca; 91-92, pl. 7.)
- x 1949 Thenius, E. (*Thalattosiren petersi*; Czechoslovakia; 162-163.)
- xD 1950 Shotwell, J.A. (*Desmostylus hesperus*; Oregon; 1541.)
- x 1951 Kretzoi, M. (*Haplosiren leganyii*, n.gen.n.sp.; Hungary; 438-441.)
- x 1951 Reinhart, R.H. (*Potamosiren magdalenensis*, n.gen.n.sp.; Colombia; 203-211.)
- x 1952 Cañigual, J. (*Metaxytherium*; Mallorca; 387-390.)
- xD 1952 DEREK (*Desmostylus*, *Paleoparadoxia*; Japan; stratigraphy; 144.)
- x 1952 Koenigswald, G.H.R.v. (*Indosiren javanensis*, n.gen.n.sp., etc.; Java; 610-612.)
- x 1952 Thenius, E. (*Thalattosiren petersi*; Austria; 33, 109-113.)
- x 1953 Pascual, R. (*Ribodon limbatus*; Mioc.-Plioc., Argentina; 163-167.)
- x 1953 Stirton, R.A. (*Potamosiren magdalenensis* & La Venta fauna; Colombia; 614.)
- x 1956 Bataller, J.R. (*Metaxytherium cuvieri*; Spain; 24-25.)
- 1957 Comaschi Caria, I. (Sardinia)
- xD 1958 Floyd et al. (supposed "sea cow": Texas; 160-161.)
- x 1959 Kellogg, R. ([*Metaxytherium floridanum*]; Florida; m6.)
- x 1959 Telles-Antunes, M.C.F. (*Halitherium*; Early Mioc., Portugal; 129-137.)
- xD *1963 Mitchell & Repenning (desmostylians, 3-16; sirs., North Pacific, 3-4, 9, 13-16; chronologic & geographic ranges.)
- xD 1963 Mitchell, E.D., Jr. (*Paleoparadoxia*; California; 193, 198.)
- xD 1964 Nolan, T.B. (desmostylian ranges; A136-A137.)
- xD 1965a Anon. (*Paleoparadoxia*; California; pop. acc.; 53.)
- x 1965 Kilmer, F.H. (*Halianassa(?) allisoni*, n.sp.; Baja California; 57-58, 70-72.)
- xD 1965 Mitchell & Lipps (*Paleoparadoxia*; San Clemente Is., California; 4-6.)
- xD 1965 Mitchell, E.D., Jr. (*Desmostylus*; California; iii, 3, 7, 21, 26-29, 36.)
- x 1966 Kellogg, R. (*Metaxytherium calvertense*, n.sp., Maryland, 66-67, 71, 78; *M. manigaulti*, *Felsinotherium alleni*, South Carolina, 78, 91-92; *M. ortegense*, n.sp., Colombia, 92-93.)
- x 1966 Pascual, R. (cf. *Felsinotherium*; Argentina; 242.)
- x 1967b Paula Couto, C. de (*Sirenotherium pirabense*, n.gen.n.sp.; Early Mioc., Brazil; 345-347, 354-356.)
- x 1968 Olsen, S.J. (*Halitherium* & indeterminate sirs.; northern Florida; 129-130, 133-134.)
- 1969 Calzada, S. (*Metaxytherium*; Spain)
- x 1969a Deraniyagala, P.E.P. (*Miodugong brevicranius*, n.gen.n.sp.; Sri Lanka; 97.)
- x 1969 Rensberger, J.M. (indeterminate sir.; California; 1-2.)
- x 1969 Robinson & Black (indeterminate sirs.; Tunisia; m69.)
- x 1970 Ginsburg, L. (*Halianassa cuvieri*; Middle Mioc., France; 189-190.)
- xD 1970 Minch et al. (*Desmostylus*; Baja California; 3149-3153.)
- x 1971 Daxner-Höck, G. (*Metaxytherium krahuletzii*; Early Mioc., Austria; 761, 764-765.)
- x 1971a Domning, D.P. (sirs. & North Pacific correlation; 110-111.)
- x 1971b Domning, D.P. (hydrodamaline evolution; 217-220.)
- xD 1971 Dubrovo & Sinel'nikova (desmostylians; Kamchatka; 670-673.)
- x 1971 Ginsburg & Janvier (*Metaxytherium medium*; Middle Mioc., France; 161.)
- x 1971 Pratt, R.M. (indeterminate sirs.; dredged from seabed off U.S. Atlantic coast; 27, 31-33.)
- x 1971 Savage, R.J.G. ("new genus": Libya; m221.)
- xD 1972 Barnes, L.G. (desmostylians & sirs.; western North America; 126, 140-142.)
- xD 1972a Domning, D.P. (desmostylians & sirs.; western North America; stratigraphy; 146-149.)
- xD 1972 Ikebe et al. (desmostylians; Japan; stratigraphic range; 44-45, 47-48, 65-66.)
- 1972 Schultz, O. (Austria)
- x 1972 Varona, L.S. (*Metaxytherium riveroi*, n.sp.; Middle Mioc., Cuba; 6, 15-16.)
- 1973 Savage & Hamilton
- x 1974 Anglada et al. (*Halitherium*; Early Mioc., France; 1-2.)
- 1974 Robinson & Black (indeterminate sirs.; Tunisia)
- x 1974 Voorhies, M.R. (indeterminate sir.; Middle Mioc., Georgia; 228.)
- 1977 Alvinerie et al. (Early Mioc.)
- x 1977 Hooijer, D.A. (*Metaxytherium cf. medium*; Netherlands; 2.)
- xD 1977 Kamei & Okazaki (*Desmostylus* & *Paleoparadoxia*; Japan; stratigraphic range; 354.)
- 1977 Radwanski, A. (Poland)
- x 1977 Savage & Tewari (*Metaxytherium*, India; indeterminate sirs., Iran & elsewhere in Indian Ocean region; 216-218.)
- xD *1978b Domning, D.P. (*Dioplotherium allisoni*, *Dusisiren*

- spp., *Paleoparadoxia*, *Desmostylus*; N. Pacific; 101–107, 147–157.)
- xD 1978 Suzuki & Stadum (?*Paleoparadoxia tabatai*; San Clemente Is., California; 5, 21.)
- x 1979 Ginsburg et al. (*Metaxytherium medium*; Middle Mioc., France; 224, 226.)
- x 1979 Takahashi et al. ("*Dusisiren* n. sp.": Late Mioc., Honshu, Japan; 228.)
- xD 1980 Inuzuka et al. (supposed *Dugong*; Middle Mioc., Japan; 639–641.)
- x 1980 Monroe, W.H. (indeterminate sirs.; Puerto Rico; 38, 78.)
- x 1981 Barnes et al. (*Hydrodamalis cuestae*; Late Mioc., California; 56–57, 62–63.)
- xD 1981 Clark, J.C. (*Desmostylus*, *Paleoparadoxia*, *Halianassa*; California; 27–28, 34.)
- x 1981 Webb et al. (*Metaxytherium*; Late Mioc., Florida; 517, 521, 535.)
- x 1982 Aizu Fossil Research Group (*Dusisiren* cf. *jordani*; Japan; 282–284.)
- x 1982b Domning, D.P. (*Potamosiren* sp., Colombia, 601–602; *Ribodon limbatus*, Argentina, 602.)
- x 1982 Ridgway, B. (cf. *Halianassa*; Florida; 7, 13, 15.)
- x 1983 Morgan & Pratt (*Metaxytherium*; Florida; 4, 20, 22.)
- x 1983 Takahashi et al. (*Dusisiren [dewana]*; Late Mioc., Honshu, Japan; 1–76.)
- x 1984 Domning & Deméré (*Hydrodamalis cuestae*; California; 169–188.)
- x 1984b Domning, D.P. (*Metaxytherium*; Maryland, North Carolina; pop. acc.; 5.)
- x 1984c Domning, D.P. (cf. *Metaxytherium calvertense*; Virginia; 224–225, 1 pl.)
- xD 1984 Kordos & Solt (Hungary)
- xD 1984 Raschke, R.E. (*Desmostylus*, *Paleoparadoxia*, *Dioplotherium allisoni*; Middle Mioc., California; 62, 64.)
- x 1984 Raza et al. (indeterminate sir.; Early or Middle Mioc., Pakistan; 585.)
- 1985c Kordos, L. (Hungary)
- x 1985 Muizon & DeVries (*Metaxytherium calvertense*; Peru; faunal connections with eastern North America; m560.)
- x 1985 Muizon & Domning (*Metaxytherium calvertense*; Peru; 190–192.)
- x 1986 Domning & Ray (halitheriine; Early Mioc., Oregon; 263–265.)
- x 1986 Frailey, C.D. (?*Ribodon*; Late Mioc., Peru & Brazil; 34.)
- D 1986 Inuzuka & Karasawa (*Paleoparadoxia*)
- x 1986a Pilleri, G. (indeterminate sir.; Germany; 18, 22, pl. 5.)
- x 1986b Pilleri, G. (indeterminate sirs.; Italy; 21–22, pl.11.)
- D 1986a Suzuki et al. (*Paleoparadoxia*; Japan)
- D 1986b Suzuki et al. (*Paleoparadoxia*; Japan)
- x 1986 Takahashi et al. (*Dusisiren dewana*, n.sp.; Late Mioc., Honshu, Japan; 297–300.)
- x 1987 Bajpai et al. (*Metaxytherium kachchhense*, n.sp.; India; 20–25.)
- x 1987 Domning & Thomas (*Metaxytherium*, Europe, review, 206–208; *Metaxytherium* sp., Libya, 209.)
- 1987 Moncharmont Zei & Moncharmont (*Metaxytherium medium*; Italy)
- x 1987 Whitmore, F.C., Jr. (indeterminate sir.; Saudi Arabia; m447.)
- x 1988 Domning, D.P. (*Metaxytherium floridanum*; Florida; 395–426.)
- 1988 Vazzana, A. (Italy)
- x 1989b Domning, D.P. ("*Halitherium*" *olseni*, *Dioplotherium manigaulti*, *Metaxytherium* sp.; Suwannee R., Florida & Georgia; 54–60.)
- x 1989c Domning, D.P. (*Dioplotherium manigaulti*; Florida, South Carolina; 415–418.)
- x 1989d Domning, D.P. (*Xenosiren yucateca*, n.gen.n.sp.; ?Mioc., Mexico; 430.)
- x 1989 Geraads, D. (*Metaxytherium* sp.; Late Mioc., Tunisia; 781, 791.)
- x 1989 Morgan, G.S. ("*Halitherium*" *olseni*, *Dioplotherium manigaulti*, *Metaxytherium* sp.; Suwannee R., Florida & Georgia; 27, 29–30, 32–34, 37–39, 43, 46, 49–50.)
- D 1989 Satoh et al. (Early Mioc., Japan)
- x 1989 Toledo, P.M. de (*Sirenotherium pirabense*; Brazil; 5–10.)
- xD 1990 Aranda-Manteca, F.J. (*Metaxytherium*, *Desmostylus*; Middle Mioc., Baja California; 100, 103–104, 108, 111.)
- xD 1990 Ferrusquia-V., I. (*Desmostylus hesperus*; Baja Calif.; 15, 17, 22–26.)
- x *1990 MacPhee & Wyss (Puerto Rico; localities; 16–17, 21–27, 32–33, 36–39.)
- xD 1990 Repenning & Packard (*Paleoparadoxia*; California [Stanford specimen]; 199.)
- x 1991 Bryant, J.D. ("*Hesperosiren*" *crataegensis*; Florida; 475–476, 484, 486.)
- xD 1991 Clark, J.M. (*Paleoparadoxia weltoni*, n.sp.; Early Mioc., California; 494–495.)
- x 1991 Czyzewska & Radwanski (*Thalattosiren*; Middle Mioc., Poland; 184–185, 188.)
- x 1991 Pervesler & Roetzel (*Metaxytherium krahuletzki*; Austria; 97.)
- x 1991 Toledo & Domning (*Dioplotherium* cf. *allisoni*, cf. *Ryiodus*, cf. *Metaxytherium*; Early Mioc., Brazil; 119–146.)
- D 1992 Kaneko & Goto (*Paleoparadoxia tabatai*; Japan)

- D 1992 Kaneko & Inuzuka (*Paleoparadoxia tabatai*, *Desmostylus japonicus*; Japan) x 1925 Kellogg, R. (comp. w/ *Metaxytherium jordani*; 58, 67.)
- 1992 Kohno & Takaizumi (Halitheriinae indet.; Late Mioc., Japan) x 1931 Sickenberg, O. (pachyostosis & osteosclerosis; 410-411, 415-416, 435.)
- 1994 Aranda-Manteca et al. (*Metaxytherium arctodites*, n.sp.; Middle Mioc., Baja California & California) *1934b Sickenberg, O.
- Miodugong* Deraniyagala, 1969 x 1941b Heuvelmans, B. (teeth, comp. w/ *Trichechus*; 9.)
- x 1969a Deraniyagala, P.E.P. (Mioc., Sri Lanka; 97, 99, pl. 2.) x 1943 Kaltenmark, J. (m23.)
- x 1969b Deraniyagala, P.E.P. (Mioc., Sri Lanka; 235-237.) x 1946 Slijper, E.J. (spinal column; tab. 5.)
- *1969c Deraniyagala, P.E.P. (n.gen.; Mioc., Sri Lanka) x 1965 Kilmer, F.H. (m69.)
- 1969d Deraniyagala, P.E.P. (Mioc., Sri Lanka) x 1966 Kellogg, R. ("*M. kochi*"; comp. w/ *Metaxytherium calvertense*; 84-85.)
- Miodugong brevicranius* Deraniyagala, 1969 Miosireninae Abel, 1919 (subfamily)
- x 1969a Deraniyagala, P.E.P. (Mioc., Sri Lanka; 97, 99, pl. 2.) x 1919 Abel, O. (new subfamily)
- x 1969b Deraniyagala, P.E.P. (Mioc., Sri Lanka; 235-237.) 1934b Sickenberg, O.
- *1969c Deraniyagala, P.E.P. (n.gen.n.sp.; Mioc., Sri Lanka) x 1941 Kretzoi, M. (in classification; 155.)
- 1969d Deraniyagala, P.E.P. (Mioc., Sri Lanka) x 1945 Simpson, G.G. (in classification; 135.)
- x 1977 Savage & Tewari (considered "*Metaxytherium* sp. indet.": 217.) *1994b Domning, D.P. (included within Trichechidae)
- Miosiren* Dollo, 1889 Mississippi
- x *1889b Dollo, L. (n.gen.; Mioc., Belgium; 415-421.) x 1965 Arata & Jackson (indeterminate sirs.; Olig.; 175-177.)
- x 1891 Flower & Lydekker (teeth; 223.) x 1974 Domning, D.P. (indeterminate sirs.; Olig.; m8.)
- x 1906 Abel, O. (dentition; 51-52.) 1974 May, J.H. (indeterminate sirs.; Olig.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 424, 434, 451, 473, 481, 487-488, 495.) x *1981 Gunter & Corcoran (TML; 97-99.)
- x 1941c Heuvelmans, B. (teeth, comp. w/ DD; m14.) 1982 Dockery, D.T., III (indeterminate sirs.; Olig.)
- x 1941 Kretzoi, M. (in classification; 154-155.) x 1983 Gunter & Perry (TML; 513.)
- x 1945 Simpson, G.G. (in classification; 135, 251.) x 1984 Powell & Rathbun (TML; 2, 7, 20.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 438-441.) x 1985 O'Shea, Beck et al. (TML; 5.)
- x 1952a Koenigswald, G.H.R.v. (comp. w/ *Indosiren*; 611.) Mortality: SEE Accidental Mortality; Conservation; Hunting and Capture; Natural Death or Injury; Pathology; Population Biology
- x 1957 Kellogg & Whitmore (paleoecology; 1021.) Museums, Catalogues or Inventories of Specimens in
- x 1978c Domning, D.P. (phyletic position; 574-575, 579.) 1681 Grew, N. (Royal Soc., London)
- x 1982 Domning, Morgan & Ray (comp. w/ Eoc. sirs.; 58, 61.) x 1828a Brookes, J. (DD; Brookesian Museum, London; 12.)
- x 1982 Kleinschmidt, A. (m378-380.) x 1838 Waterhouse, G.R. (DD; Zool. Soc. London; 35.)
- x 1987 Domning & Thomas (probably related to *Anomotherium*; 207.) 1850 Gray, J.E. (British Museum [Nat. Hist.])
- x 1991 Domning & de Buffrénil (pachyosteosclerosis; m362.) 1851 Horsfield, T. (DD; East-India Company, London; 139.)
- Miosiren canhami* (Flower, 1874) Sickenberg, 1934 1863 Blyth, E. (DD; Asiatic Soc., Calcutta)
- *1934b Sickenberg, O. (n.comb.) 1866 Gray, J.E. (British Museum [Nat. Hist.])
- Miosiren kocki* Dollo, 1889 1871 Gray, J.E. (British Museum [Nat. Hist.])
- x *1889b Dollo, L. (n.sp.; Mioc., Belgium; 415-421.) 1882 Stahl, A. (Bayamon, Puerto Rico)
- x 1914 Depéret, C. (comp. w/ *Felsinotherium Serresi*; 1858-1859, 1861.) 1884 Flower & Garson (Royal College of Surgeons, London)
- 1887 Jentink, F.A. (Mus. Hist. Nat. Pays-Bas, Leiden)
- 1887 Lydekker, R. (fossil sirs.; British Museum [Nat. Hist.])
- 1891 Sclater, W.L. (DD; Indian Museum, Calcutta)

- 1892 Jentink, F.A. (Mus. Hist. Nat. Pays-Bas, Leiden)
- 1902 Smith, G.E. (Royal College of Surgeons, London; brains)
- x 1904 Goeldi & Hagmann (Museu Goeldi, Belém, Brazil; 89-90.)
- 1912 Turner, W. (Edinburgh)
- 1923 Woodward, A.S. (British Museum [Nat. Hist.])
- *1934 Pia & Sickenberg (fossil sirs.; Austria)
- 1938? Themido, A.A. (Coimbra)
- 1976 Duguay & Cyrus (Recent sirs.; Marseille)
- x 1977 Van Bree & Duguay (Recent sirs.; Bordeaux; 290-292.)
- x 1978b Domning, D.P. (N. Pacific fossil & Recent sirs.; 94, 147-162.)
- 1979 Duguay & Defretin (Recent sirs.; Lille)
- x 1986 McLaren et al. (Recent sirs.; Carnegie Museum, Pittsburgh; 293-296.)
- *1987 Pilleri, G. (fossil sirs.; Switzerland)
- *1988d Pilleri, G. (Recent sirs.; Switzerland)
- x 1989 Leatherwood & Reeves (DD; Sri Lanka; 89-90, 129-132.)
- x 1989 Perrin & Kashiwada (TML; La Jolla, Calif.; 17.)
- Myology
- x 1838 Owen, R. (DD; visceral muscles, 30-33; heart, 35; larynx, 38; genital organs, 40.)
- 1845 Stannius, H.F.
- 1849 Stannius, H.F.
- x *1851 Barkow, H.C.L. (DD; muscle innervation; 119-122.)
- x 1862 Phillippo (*Trichechus*; heart; m684.)
- x *1872a Murie, J. (TMM; 134, 137, 143-164, 179-180, 189.)
- x 1875 Chapman, H.C. (TMM; m453, m457.)
- x *1880 Murie, J. (TMM; 32-35, pl. 8.)
- x 1892 Waldeyer, W. (*Manatus americanus*; digestive tract; 81-85.)
- 1902 Pütter, A. (eyeball)
- x 1904 Freund, L. (manus; 383-384, 390-391, 395.)
- x 1907 Pick, F.K. (DD; smooth muscles of lung; 260-262, 266, 269-270.)
- x 1908a Gudernatsch, J.F. (DD; tongue; 601-604.)
- x 1909 Gudernatsch, J.F. (TM; tongue; 185-186.)
- x 1910 Sterling, S. (forearm muscles & degree of aquatic adaptation; 667-668.)
- 1911 Riha, A.
- 1918 Kaudern, W.
- 1925a Petit, G. (genital organs)
- 1930 Freund, L.
- *1933 Bahrtdt, H.J. (forelimb)
- 1934 Genschow, J. (muscles of nasal passages; 431-435.)
- x 1935 Barrett, O.W. (TMM; muscle color; 218.)
- x *1946 Slijper, E.J. (spinal muscles; 46-47, 50-53, 73-78, 112, 114, 120, tabs. 1, 3, 6.)
- x 1953 Quiring & Harlan (TML; eye muscles, m194; abdominal & thoracic muscles, 202.)
- x 1957 Gohar, H.A.F. (DD; muscles of penis; 31-33.)
- x 1959b Engel, S. (DD; smooth muscles of lung; 98-99.)
- x 1962 Engel, S. (DD; smooth muscles of lung; 96-97, 102-103, 105-107.)
- x 1965 Robineau, D. (middle ear; 414, 417, 419.)
- 1968 Lemire, M.
- 1968 Saban, R. (head)
- x 1969 Robineau, D. (ear region; 6, 10, 14, 26.)
- 1970 Turnbull, W.D. (jaw muscles)
- x 1971 Kingdon, J. (DD; sketches of superficial muscles; 392-393, 396.)
- x 1972 Blessing et al. (TI; muscle fibers of spleen; 176, 182.)
- x 1972 Blessing, M.H. (?TI; myoglobin concentrations; 475-479.)
- x 1972 Kenchington, R.A. (DD; digestive tract; m884, m886-887.)
- *1975 Saban, R. (TS; facial muscles)
- x *1977a Domning, D.P. (DD; comp. w/ *Trichechus*; 1-57.)
- x 1977b Domning, D.P. (hydrodamalines; evolutionary changes; 357-359.)
- x *1978a Domning, D.P. (TI; comp. w/ other sirs.; 1-81.)
- x *1978b Domning, D.P. (hydrodamalines; evolutionary changes; 118-129.)
- *1986 Gambaryan & Sukhanov (TM)
- 1986 Rodionov, V.A. (TM; lipids in muscles)
- 1986 Umnova & Novoselova (TM; muscle ultrastructure)
- x 1988 Fischer, M.S. (TM; ear & basicranial region; 368-374.)
- 1993 Fischer & Tassy
- 1993 Shoshani, J.
- Myths: SEE Religious, Superstitious, or Ornamental Use or Observance
- Natural Death or Injury (SEE ALSO: Captivity, Sirenians in; Natural Enemies; Pathology; Temperature, Effects of)
- x 1881 Crane, A. (?TI; shattered humerus & spinal injury; 459.)
- x *1899 Steller, G.W. (HG; ice, surf, rocks; 184, 198, 200.)
- x 1904 Freund, L. (DD; fractured metacarpals; 375-376, pls. 14-15.)
- x 1906 Annandale, N. (DD; ?shark bite; m240.)
- x 1923a Petit, G. (DD; scratched by shells; 77.)
- x 1928 Prater, S.H. (DD; India; m88.)
- 1931 Loth, E.
- 1931 Slijper, E.J.

- x 1932 Korschelt, E. (DD, rib fractures, 450; TML, lesion on radius, 451.)
- 1936 Slijper, E.J.
- 1940 Loth, E.
- x 1953 Fernand, V.S.V. (DD; scars from ?coral or ?shells; 142.)
- x 1953 Moore, J.C. (TML; Florida; calf; 121.)
- 1959b Anon. (DD; New South Wales; stranding; 49.)
- x 1960 Mani, S.B. (DD; India; stranding; 216-217.)
- x 1961 Silas, E.G. (DD; India; stranding; 263-264.)
- x 1962 Marlow, B.J. (DD; New South Wales; stranding; 433.)
- x 1963 Lal Mohan, R.S. (DD; India; strandings; 152.)
- x 1965 Layne, J.N. (TML; Florida; cold & ?red tide; 166-167.)
- x 1967 Jones, S. (DD; India; cyclone & salinity change; 217.)
- x 1972a Anon. (TML; Florida; "played with" by porpoises; 4.)
- x 1973 Bertram & Bertram (DD; Somalia; surf; m302.)
- x 1975 Domning & Frye (*Metaxytherium jordani*; fractures; 2.)
- x 1975 Pinto da Silveira, E.K. (TI; females killed by mating herds; 225.)
- x 1976 Gallagher, M.D. (DD; Bahrain; cold, nets, oil, or seismic surveys as possible causes of death; 211.)
- x 1978 Anderson & Heinsohn (DD; Australia; ?mass mortality; 20.)
- x 1978 Odell et al. (TM; Bahamas; 292.)
- x 1979 Hartman, D.S. (TML; Florida; gashes on belly, 38; mortality factors, 123-125.)
- 1980 Harper, H. (TML; Florida)
- x 1981 Beck et al. (TML; Florida; mortality, 1978; 76-85.)
- x 1981 Brownell & Ralls (TML; Florida; carcasses salvaged, 1974-77; 147-154.)
- x 1981 Campbell & Irvine (TML; Florida; cold mortality, 1976-77; 86-91.)
- x 1981 Irvine et al. (TML; Florida; mortality, 1974-77; 67-75.)
- x 1981 Powell et al. (TMM; Puerto Rico; calf stranded; 645.)
- x 1982 Rathbun et al. (TML; U.S.A. north of Florida; starvation, cold; 153-154, 156.)
- x 1983 Best, R.C. (TI; bowel obstruction during fasting; 62.)
- x *1983 Bonde et al. (TM; salvage & necropsy manual; i-v, 1-175.)
- x 1983 Buergelt & Bonde (TM; toxoplasmic meningoencephalitis; 1294-1296.)
- x 1984 Buergelt et al. (TML; Florida; necropsy findings; cold mortality, malnutrition, meningoencephalitis, periventriculitis, 1331-1334; red tide, 1334.)
- x 1984 Buergelt, C.D. (TML; Florida; summary of necropsy findings, 1980-83; 28-29.)
- x 1984c Marsh, H. (DD; Australia; stranding by cyclone; 106-107.)
- x 1984 Robinson, N.H. (DD; New South Wales; strandings; 157.)
- x *1985 O'Shea, Beck et al. (TML; Florida; mortality, 1976-81; 1-11.)
- x 1985 Packard, Frohlich et al. (TML; Florida; cold mortality; 16.)
- 1986 Marsh, Freeland et al. (DD; Australia; stranding by cyclone)
- x 1987 Walsh et al. (TML; Florida; omphalitis & peritonitis; 702-704.)
- *1988 Beeler & O'Shea (TML; southeastern U.S.A.)
- x 1988 Hasegawa, H. (DD; Okinawa; 23.)
- x 1988 Ho, H.C. (DD; Singapore; strandings; 24-25.)
- x 1988a O'Shea, T.J. (TML; southeastern U.S.A.; historical records of mortality; 186-187, 190-191, 199.)
- x 1988 Rathbun et al. (TMM; Honduras; starvation in lagoon; 306-307.)
- x 1989a Marsh, H. (DD; Australia; stranding by cyclone; 78-84.)
- x 1990 Rathbun et al. (TM; northwestern Florida, 1982-85; 22-23, 30-32.)
- xD 1990 Repenning & Packard (*Paleoparadoxia*; Mioc., California; 199-203.)
- x *1991 O'Shea et al. (TML; Florida; red tide, 1982; 165-179.)
- x 1993 Brown, J. (DD; Australia; seagrass dieoff; pop. acc.; 11.)
- Natural Enemies (SEE ALSO: Natural Death or Injury)
- 1745 Gumilla, J. (TMM; Guianas; "Tigres")
- x 1763 Bellin, S. (TMM; Guianas; "Tigres"; m66.)
- x 1855a Gervais, F.L.P. (TI; Amazonia; jaguar; 116.)
- x 1869 Marcoy, P. (TI; Amazonia; jaguar; 2: 202-204.)
- x 1870 Delfortrie, E. (*Halitherium*; Early Mioc., France; bones scarred by fish teeth; 261.)
- x 1871 Farge, E. (*Halitherium*; Middle Mioc., France; bone scarred by sharks; 265-268, pl. 2.)
- x 1872 Farge, E. (*Halitherium*; Middle Mioc., France; bone scarred by sharks; 412-416.)
- x 1872 Kingston, W.H.G. (TI; Amazonia; jaguars; 184-190.)
- 1875 Barbosa Rodriguez, J. (TI; Brazil; jaguars)
- x 1875 Marcoy, P. (TI; Amazonia; jaguar; 2: 235-237.)
- x 1886 Portis, A. (*Felsinotherium*; Plioc., Italy; bones scarred by sharks; 357.)
- x 1906 Annandale, N. (DD; India; sharks; m240.)
- x 1925 Lee, I. (DD; Australia; sharks; 20.)

- x 1934 Thomson, D.F. (DD; Australia; sharks; 242.)
- x 1935 Barrett, O.W. (TMM, sharks, caimans, m218; DD, crocodiles, 219–220.)
- x 1937 Johnson, E. (TS; Gambia; crocodiles; 63.)
- x 1937 Promus, J. (DD; Australia; killing shark with tusks; 41.)
- x 1937 Sunter, G.H. (DD; Northern Territory, Australia; dugong killing crocodile by falling on top of it; 60.)
- 1939 Patterson, E.K. (DD; Torres Strait; shark attack)
- x 1941 Landa, D. de (TMM; Yucatan; bats; 191.)
- x 1944 Pereira, M.N. (TI; Brazil; jaguar & shark only known predators; 63–65.)
- x 1948 Bessac & Villiers (TS; Senegal; bitten by small fish, especially “Silures,” but “friendly” with crocodiles; 189.)
- x 1955 MacMillan, L. (DD; Australia; sharks, killer whales; 18.)
- x 1958 Leakey, L.S.B. (DD; East Africa; crocodiles; m19.)
- x 1960 Allsopp, W.H.L. (TMM; Guyana; immune to electric eels; 762.)
- 1963 Bertram, G.C.L. (*Trichechus*; South America; fish)
- x 1964a Bertram & Bertram (TMM; Guyana; caimans, parrot-fish; m119.)
- 1964 Norwood, V.G.C.
- x 1966 Jarman, P.J. (DD; Kenya; sharks; 84.)
- x 1966 Kellogg, R. (*Metaxytherium calvertense*; Middle Mioc., Maryland; bones scarred by sharks; 67.)
- x 1967 Jones, S. (DD; India; wounded by stingray; 219.)
- x 1967 Welsby, T. (DD; Moreton Bay, Queensland; sharks, 2: 234; sharks eating drowned dugongs in nets, 2: 238–239.)
- x 1968 Chamock-Wilson, J. (TMM; Belize; alligators; 293–294.)
- x 1971 Kingdon, J. (DD; East Africa; sharks; 397.)
- x 1974 Fondi & Pacini (*Metaxytherium forestii*; Plioc., Italy; bone scarred by ?shark tooth; 50–51, pl. 46.)
- x 1975 Husar, S.L. (DD; Australia; carcasses not molested by sharks; m18.)
- x 1975 Pinto da Silveira, E.K. (TMM, sharks; TI, jaguars, caimans, anacondas; 226.)
- x 1978 Anderson & Heinsohn (DD; Australia; sharks, crocodiles, “porpoises,” stingrays, stonefish; 19–20.)
- x 1978b Domning, D.P. (HG; possible predators; 115–116.)
- x 1978 Stanbury, P.J. (DD; Australia; shark, *fide* Dampier; 18.)
- x 1979 Anderson, P.K. (DD; blood clotting & “skin hardening” as ?anti-predator adaptations, 127; scar from shark attack, 128, 131; sharks, ?crocodiles, ?killer whales, ?stonefish, 135.)
- x 1979 Hartman, D.S. (*Trichechus*; South America; piranhas; m123.)
- x 1980 Belitsky & Belitsky (TMM; Dominican Republic; sharks; 317–319.)
- x 1981b Anderson, P.K. (DD; Australia; sharks; 103, 107.)
- x 1981 Brownell et al. (DD; Palau; carcasses scavenged by crocodiles; 34–35.)
- x 1982a Anderson, P.K. (DD; Shark Bay, Australia; association of sharks with groups of dugongs; 78, 82–83.)
- x 1982 Barnett & Johns (DD; Queensland; sharks; 519.)
- x 1982 Best & Teixeira (TMM; Brazil; ?shark bites; 45.)
- x 1982 Boaz & Cramer (*Metaxytherium*; Plioc., Libya; sharks; pop. acc.; 37, 40–41.)
- x 1982c Domning, D.P. (*Metaxytherium serresii*; Plioc., Libya; bones scarred by shark *Carcharodon megalodon*; 29, 32.)
- x 1982 Ridgway, B. (cf. *Halianassa*; Mioc., Florida; bones scarred by sharks; 13, 15.)
- x 1984 Marsh, Heinsohn & Marsh (DD; Australia; attack by tiger shark; 788.)
- x *1985 Anderson & Prince (DD; Shark Bay, Australia; attacks by killer whales; 554–556.)
- x 1987 Domning & Thomas (*Metaxytherium serresii*; Plioc., Libya; bones scarred by sharks; 209.)
- x 1988 Reddacliff, G. (DD; Australia; cookie-cutter shark [*Isistius*]; 133–134.)
- x 1989 Morgan, G.S. (*Metaxytherium*; Early Mioc., Florida; sharks; 33, 37–38.)
- xD 1990 Repenning & Packard (*Paleoparadoxia*; Mioc., California; sharks; 199–201.)
- x 1993 Loyer, B. (DD; Vanuatu; wounds from sharks; attempts to ?drown turtles; 55.)
- Nemodermus* Rafinesque, 1815 (nomen nudum; = *Trichechus*)
- x *1815 Rafinesque, C.S. (n.gen.; nomen nudum; in classification; 60.)
- x 1978c Domning, D.P. (syn. of *Trichechus*; m578.)
- D *Neodesmostylus* Khomenko, 1928 (Proboscidea; = *Mammuthus*)
- xD *1928a Khomenko, J. (n.gen.; Pleist., Siberia; 519–520.)
- xD 1941 Kretzoi, M. (in classification; 153, 155.)
- xD 1963 Mitchell & Repenning (not considered a desmostylian; m4.)
- D *Neodesmostylus primigenius* Khomenko, 1928 (Proboscidea; = *Mammuthus*)
- xD *1928a Khomenko, J. (n.gen.n.sp.; Pleist., Siberia; 519–520.)
- D 1966c Shikama, T.

- Nepus* Fischer von Waldheim, 1814 (= *Hydrodamalis*)
 *1813–
 1814 Fischer v. Waldheim, G. (n.gen.)
 x 1840 Baer, K.E.v. (syn. of *Rytina*; m53.)
 x 1872a Gill, T. (syn. of *Rhytina*; m92.)
 1925 ICZN (syn. of *Hydrodamalis*; m38.)
 x 1978b Domning, D.P. (syn. of *Hydrodamalis*; 75.)
- Nepus stelleri* (Retzius, 1794) Fischer von Waldheim,
 1814 (= *Hydrodamalis gigas*)
 *1813–
 1814 Fischer v. Waldheim, G. (n.comb.)
 x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 75,
 93.)
- Nervous System: SEE Brain and Nervous System
- Netherlands
 1975 Bosch et al. ("*Halitherium*" [actually *Metaxytherium*])
 x 1977 Hooijer, D.A. (*Metaxytherium* cf. *medium*; Mioc.,
 Eibergen; 2, 12.)
 x 1982 Hooijer, D.A. (indeterminate sir.; Western Scheldt;
 261–262, pl. 1.)
- New Jersey
 x 1856b Leidy, J. (*Manatus antiquus*; 165.)
 x 1981 Miller, R.R. (TMM; Long Beach Is.; netting; m53.)
 x *1989 Gallagher et al. (*Trichechus* sp.; ?Pleist.; 107–
 108.)
- Nicaragua (SEE ALSO: Central America)
 1847 Young, T. (TMM)
 x 1910 Allen, J.A. (TMM; m89, m94.)
 x 1920 Goldman, E.A. (TMM; 69.)
 x *1935 Barrett, O.W. (TMM; 216–219.)
 x 1965 Jones, J.K. (TMM; Indian name; 354.)
 1973 Nietschmann, B. (TMM)
 x *1976 Loveland, F.O. (TMM; hunting, ritual & myth;
 70–82.)
 1978 Magnus, R.W. (TMM)
 x 1982 Wing & Reitz (TMM; at archeological sites; m16.)
 x 1989 Lefebvre et al. (TMM; distr., status, & biogeogra-
 phy; 582–583, 606.)
- North America (SEE ALSO under countries and states)
 x 1837 Richardson, J. (*Manatus americanus*, *M. latirostris*,
Rytina borealis; m162.)
 x 1856a Leidy, J. (*Ischyrotherium*, supposed sir. from
 Nebraska; 89.)
 x 1941a Gunter, G. (TML; distr.; 60–64.)
 x 1942 Gunter, G. (TML; distr.; 89–90.)
 x 1942 Simpson, G.G. (fossil sirs. on Atlantic coast;
 m177.)
- x 1954 Gunter, G. (TM; distr.; 543–544.)
 x 1974 Domning, D.P. (fossil sirs.; southeastern U.S.A.;
 pop. acc.; 7–9.)
 x *1989 Lefebvre et al. (TM; distr., status, & biogeography;
 576–580, 589–591, 599, 603–605.)
- North Carolina
 1858 Emmons, E.
 1860 Emmons, E.
 x 1919 Stiles, C.W. (TML; in capt.; 658.)
 x 1931 Brimley, H.H. (TML; captured, 1919; 320–
 321.)
 1946 Brimley, H.H. (TML)
 x 1960 Funderburg, J.B. (TML; Pleist. & Recent records;
 521.)
 1965 Caldwell & Golley
 1976 Lee, D.S.
 x 1977 Browne & Lee (TML; abstract of interview survey;
 40.)
 x 1977 Campbell, H.W. (TML; gen. acc.; 396–397.)
 x 1982b Domning, D.P. (*Ribodon* sp., ?Plioc., 604; *Tri-
 chechus* sp., Pleist., 605.)
 x *1982 Domning, Morgan & Ray (Eoc. sirs.; 4, 6, 13–17,
 39.)
 x *1982 Rathbun et al. (TML; 153–154, 156, 160–163.)
 x 1984b Domning, D.P. (fossil sirs.; pop. acc.; 5.)
 x 1988a O'Shea, T.J. (TML; 187, 198–199.)
 1989 Lee & Socci
- Nutrition: SEE Digestive System; Food; Milk
- Oligocene
 x 1884 Gaudry, A. (*Halitherium Chouqueti*, n.sp.; Paris
 Basin, France; 372–375.)
 x 1886b Hartlaub, C. (*Manatherium delheidi*, n.gen.n.sp.;
 Belgium; 369–370.)
 x 1889 Lefèvre, T. (fossil sirs.; Belgium; 197–200.)
 x 1892 Lydekker, R. (*Prorastoma veronense*; [actually
 Eoc.] Italy; 77–78.)
 x 1914 Rabell Cabrero, N. (indeterminate sir.; Puerto
 Rico; 66–69.)
 xD 1917 Kermode, F. ("*Desmostylus*" [actually *Cornwal-
 lius*]; Vancouver Is., British Columbia;
 42–43.)
 xD 1922 Cornwall, I.E. ("*Desmostylus*" [actually *Cornwal-
 lius*]; British Columbia; 121–123.)
 xD 1922 Hannibal, H. (*Desmostylus*; California & Oregon;
 238–240.)
 x 1922a Hay, O.P. (*Metaxytherium floridanum*, n.sp.; [actu-
 ally Mioc.] Florida; 3.)
 x 1925 Abel, O. (*Halitherium Uytterhoeveni*, n.sp.; Bel-
 gium; 39.)
 x 1932 Müllerried, F.K.G. (indeterminate sir.; [actually

- Eoc.?] Chiapas, Mexico; 71–73.)
- xD 1935 LaMotte, R.S. (*Desmostylus sookensis*; British Columbia; associated flora; 51–52.)
- x 1936 Trelles-Duelo, L. (indeterminate sir.; Cuba; 269–270.)
- x 1937 Venzo, S. (*Halitherium bellunense*; Late Olig., Italy; 7, 13, 196.)
- xD 1941b VanderHoof, V.L. (*Cornwallius*; Baja California; 1985.)
- xD 1942a VanderHoof, V.L. (*Cornwallius sookensis*; Baja California; 298–301.)
- x 1948 Deraniyagala, P.E.P. (indeterminate sirs.; Libyan Desert, Egypt; m15.)
- x 1953 Maldonado-Koerdell, M. (indeterminate sir.; [actually Eoc.?] Chiapas, Mexico; 146–148.)
- x 1956 McKenna, M.C. (*Lophiodolodus*; Colombia; considered ?sir.; m739.)
- 1957 Hunger & Magalowski
- x 1959 Malde, H.E. (indeterminate sir.; South Carolina; 19, 21.)
- *1959 Spillmann, F. (*Halitherium*; Austria)
- x 1962 Schäfer, W. (*Halitherium schinzii*; Mainz Basin, Germany; 53–56.)
- x 1962 Wilhelm, W. (*Halitherium schinzii*; Mainz Basin, Germany; 51–53.)
- 1963 Pietzsch, K. (Germany)
- xD 1964 Nolan, T.B. (*Desmostylus*; mA137.)
- x 1965 Arata & Jackson (indeterminate sirs.; Mississippi; 175–177.)
- x 1970 Chavanon & Saubade (*Halitherium*; France; 261–262.)
- x 1972 Sittler, C. (*Halitherium schinzii*; France; 113.)
- 1973 Mastroilli, V.I. (Italy)
- x *1973 Spillmann, F. (*Halitherium* spp.; Austria; 197–209.)
- 1974 May, J.H. (indeterminate sir.; Mississippi)
- 1975 Rabeder, G. (Austria)
- xD 1976 Phillips et al. (*Desmostylus*, *Paleoparadoxia*; Late Olig. [actually Early Mioc.], Point Arena, California; 137, 152.)
- x 1980 Sanders, A.E. (cf. *Halitherium*, cf. *Metaxytherium*; Late Olig., South Carolina; 612.)
- x 1980 Tobien, H. (*Halitherium schinzii*; Mainz Basin, Germany; stratigraphic occurrences; 207–209.)
- 1982 Dockery, D.T., III (indeterminate sir.; Mississippi)
- x 1982 Fischer, K. (*Halitherium schinzii*; Leipzig, Germany; 151–153.)
- xD 1986 Domning et al. (*Behemotops*, n.gen.; Washington & Oregon; 1–12, 23, 26.)
- x 1986 Fleagle et al. (indeterminate sir.; Egypt; 8–9.)
- *1986 Rothausen, K. (Germany)
- xD 1988 Saito et al. (*Behemotops* sp.; Late Olig., Hokkaido, Japan; 269–273.)
- x *1990 MacPhee & Wyss (Puerto Rico; localities; 21, 27–36.)
- x 1992 Gingerich, P.D. (Fayum, Egypt; stratigraphy, age, & paleoenvironments of sirs.; 67, 77.)
- D 1994 Ray et al. (*Behemotops proteus*; Washington)
- Ontogeny: SEE Embryology and Ontogeny
- Oregon
- xD 1902a Osborn, H.F. (*Desmostylus*; 714.)
- xD 1911 Merriam, J.C. (*Desmostylus*; Mioc.; 406.)
- D 1914 McCormack, E.C. (*Desmostylus*)
- xD 1915 Hay, O.P. (*Desmostylus hesperus*; Mioc., Astoria; 381–383.)
- xD *1922 Hannibal, H. (*Desmostylus cymatias*, n.sp.; Mioc.; 239–240.)
- D 1934 Packard & Kellogg
- D 1937 VanderHoof, V.L.
- xD 1950 Shotwell, J.A. (*Desmostylus hesperus*; Mioc., Astoria; 1541.)
- xD 1963 Mitchell & Repenning (*Desmostylus*; 9–10.)
- x 1986 Domning & Ray (halitheriine; Early Mioc.; 263–264.)
- xD *1986 Domning et al. (*Behemotops emlongi*, n.gen.n.sp.; Late Olig.; 1–4, 23, 26.)
- Ornamental Use: SEE Religious, Superstitious, or Ornamental Use or Observance
- Osmoregulation: SEE Salinity Tolerance
- Osteology: SEE Skeleton
- Oxystomus* Fischer von Waldheim, 1803 (= *Trichechus*)
- *1803 Fischer v. Waldheim, G. (n.gen.)
- x 1872a Gill, T. (syn. of *Trichechus*; m91.)
- x 1925 ICZN (syn. of *Trichechus*; m38.)
- x 1934 Hatt, R.T. (syn. of *Trichechus*; 534.)
- x 1961 Cabrera, A. (syn. of *Trichechus*; m309.)
- x 1978c Domning, D.P. (syn. of *Trichechus*; m578.)
- Oxystomus manatus* (Linnaeus, 1758) Fischer von Waldheim, 1803 (= *Trichechus manatus*)
- *1803 Fischer v. Waldheim, G. (n.comb.)
- x 1934 Hatt, R.T. (syn. of *Trichechus manatus*; 534.)
- Pachyacanthus* Brandt, 1873 (Cetacea)
- *1873 Brandt, J.F. (n.gen.)
- x 1875 Van Beneden, P.J. (specimens in Vienna; vertebrae & ribs thought to represent a sir.; 323–340.)
- x 1886b Hartlaub, C. (m377.)
- x 1891 Flower & Lydekker (m224.)
- x 1932a Simpson, G.G. (m481.)

- *1937 Pia, J.v.
 x 1941 Kretzoi, M. (m150; in classification, 154-155.)
 x 1991 Domning & de Buffrénil (pachyostosis; m364.)
- Pachyacanthus suessi* Brandt, 1873 (Cetacea)
 *1873 Brandt, J.F. (n.sp.)
- Pachyacanthus trachyspondylus* Brandt, 1873 (Cetacea)
 *1873 Brandt, J.F. (n.sp.)
 x 1875 Van Beneden, P.J. (considered to be based on pathological specimens; 326, 339-340.)
 x 1885a Woodward, H. (m470.)
- Pacific Ocean (SEE ALSO: East Indies; Palau; circum-pacific regions)
 x 1825a Harlan, R. (HG; distr.; 281.)
 x *1840 Baer, K.E.v. (HG; distr.; 53-80.)
 x 1867a Brandt, J.F. (HG; distr.; 450-451.)
 x 1884 Fischer, P. (DD; New Caledonia; barnacle *Platylepas bissexlobata*; 359.)
 x 1923 Sowerby, A. de C. (HG; distr.; 136-137.)
 x 1934 Hirasaka, K. (DD; distr.; 4221-4222.)
 x 1947 Johnson, I. (DD; southwestern Pacific, locality unstated; 130, 143-144.)
 x 1963 Berzin et al. (HG; possible survival; 73-75.)
 xD *1963 Mitchell & Repenning (desmostylians & sirs.; chronologic & geographic range; 3-16.)
 xD 1963 Mitchell, E.D., Jr. (desmostylians; distr.; 198.)
 xD 1964 Nolan, T.B. (desmostylians; distr.; A136-A137.)
 xD 1966 Mitchell, E.D., Jr. (desmostylians & sirs.; faunal succession; 50, 53, 56-57, 59-60.)
 x 1967 Jones, S. (DD; New Caledonia; in capt.; 216.)
 1967 Nishiwaki, M.
 x 1971a Domning, D.P. (hydrodamalines; evolutionary history; 110-111.)
 x 1971b Domning, D.P. (hydrodamalines; evolutionary history; 217-220.)
 xD 1972a Domning, D.P. (sirs., Mioc., 146-149; desmostylians, Olig.-Mioc., 146, 149.)
 x 1972b Domning, D.P. (HG; extermination & origin of North Pacific aboriginal whaling; 187-189.)
 1972 Kent, J. (Solomon Islands)
 x 1973 Bertram & Bertram (DD; distr. & status; 309-310.)
 x 1973 Scheffer, V.B. (HG; distr. & history; 65-66.)
 x 1973 Vorontsov, N.N. (HG; distr. & extermination; 124.)
 xD 1975b Domning, D.P. (sirs. & desmostylians; ecology & evolution, Tertiary-Recent; 824.)
 xD 1977b Domning, D.P. (sirs. & desmostylians; North Pacific; ecology & evolution; 352-362.)
 x 1977 Van Bree & Duguay (DD; Indochina & New Caledonia; 290-291.)
 xD *1978b Domning, D.P. (sirs. & desmostylians; North Pacific; 1-176.)
- x 1979 Nishiwaki et al. (DD; distr.; 133-141.)
 x 1981d Domning, D.P. (sirs. & marine plants; paleoecology; 419.)
 x 1982 Montgomery et al. (TMM; potential entry via Panama Canal; 257-258.)
 x 1983 Marsh, H. (DD; Vanuatu; 1-5.)
 1985 Fordyce, R.E.
 x 1985 Muizon & Domning (dugongids, Tertiary, East Pacific, 209-211; TMM, reported passage through Panama Canal, 209.)
 x 1986 Domning & Ray (sirs.; Late Olig.-Early Mioc., North Pacific; 273-274.)
 x 1987a Domning, D.P. (hydrodamalines; evolution; pop. acc.; 64, 66-71.)
 xD 1988 Estes & Steinberg (sirs. & desmostylians; North Pacific; evolution of kelp; 21-22.)
 x 1989 Chambers & Bani (DD; Vanuatu; status; 13-14.)
 xD 1989a Domning, D.P. (sirs. & desmostylians; North Pacific; evolution of kelp; 53-56.)
 xD 1989 Estes & Steinberg (sirs. & desmostylians; North Pacific; evolution of kelp; 57-60.)
 1990 Furusawa, H. (sir. evolution in North Pacific)
 1991 Eldredge, L.G. (DD; Micronesia)
 x 1993 Loyer, B. (DD; Vanuatu; 54-55.)
- Palau
 1788 Keates, A.
 1821 Kotzebue, O.v. (DD)
 1873 Semper, K.G. (DD)
 1895 Kubary, J.S. (DD)
 1929 Kramer, A. (DD)
 *1938 Asano, N. (DD)
 1941 Yamaguti, S.
 x 1955a Anon. (DD; 79.)
 x 1955b Anon. (DD; 73-74.)
 x 1956a Anon. (DD; 49.)
 x 1956 Harry, R.R. (DD; 21-27.)
 x 1956 Simpson, D.A. (DD; in capt., San Francisco; pop. acc.; 54.)
 x 1957 Bayer & Harry-Rofen (DD; 502, pl. 20.)
 1972 Johnson, S.P. (DD)
 x 1973 Bertram & Bertram (DD; status; 309.)
 x 1981a Blair, D. (DD; parasitic flukes; 6, 15.)
 x *1981 Brownell et al. (DD; status; 19-42.)
 x 1981 Johannes, R.E. (DD; hunting & sale; 25, 68, 73.)
 x 1988 Rathbun et al. (DD; status; 265-270.)
 1991 Eldredge, L.G. (DD)
- Paleoecology and Taphonomy
 1887 Studer, T. (Mioc., Switzerland)
 x 1895 Depéret, C. (*Metaxytherium krahuletzki*; Early Mioc., Austria; associated fauna; 415.)
 xD 1906 Merriam, J.C. (*Desmostylus*; 152.)

- xD 1935 LaMotte, R.S. (*Desmostylus sookensis*; Late Olig., British Columbia; 51–56.)
- x 1941 Kretzoi, M. (*Rytiodus*; 154.)
- x 1949 Thenius, E. (*Thalattosiren*; Mioc., Czechoslovakia; ?wind erosion of bones; 162.)
- x 1951 Kretzoi, M. (*Haplosiren*, etc.; Hungary; m439, m441.)
- x 1957 Kellogg & Whitmore (*Miosiren*, *Metaxytherium*, *Hesperosiren*; Mioc., Belgium, Maryland, Florida; 1021–1022.)
- xD 1958 Floyd et al. (supposed *Desmostylus*; Texas; 160–161.)
- xD 1961 Drewes et al. (*Cornwallius*; Late Olig., Unalaska Is., Alaska; 606–607, 667.)
- x *1962 Schäfer, W. (*Halitherium schinzii*; Olig., Mainz Basin, Germany; taphonomy experiments; 53–56.)
- x 1962 Wilhelm, W. (*Halitherium schinzii*; Olig., Mainz Basin, Germany; 52–53.)
- xD 1964 Mitchell & Lipps (desmostylians; Mioc., California; 214–215.)
- x 1965 Savage & White (sirs.; Middle Eoc., Libya; headless carcasses; 91.)
- x 1966 Kellogg, R. (*Metaxytherium calvertense*; Middle Mioc., Maryland; 66–67.)
- D 1966a Shikama, T. (*Paleoparadoxia*, *Desmostylus*)
- D 1966c Shikama, T. (*Paleoparadoxia*, *Desmostylus*)
- x 1967 Paula Couto, C. de (*Sirenotherium*; Early Mioc., Brazil; 354–356.)
- x 1969a Deraniyagala, P.E.P. (*Miodugong*; Mioc., Sri Lanka; 99–102.)
- xD 1970 Minch et al. (*Desmostylus*; Baja California; 3151–3153.)
- x 1971b Domning, D.P. (hydrodamalines; North Pacific; 217–219.)
- x 1971 Ginsburg & Janvier (*Metaxytherium medium*; Middle Mioc., France; taphonomy; 189.)
- xD 1972a Domning, D.P. (sirs. & desmostylians; Mioc., North Pacific; 146–148.)
- 1973 Savage & Hamilton (Mioc., Libya)
- xD 1975b Domning, D.P. (sirs. & desmostylians; North Pacific; 824.)
- x 1975 Lipkin, Y. (angiosperms vs. algae in early sir. diet; 92–93.)
- xD *1977b Domning, D.P. (sirs. & desmostylians; North Pacific; ecological model; 352–362.)
- x 1977 Whitmore & Gard (HG; Pleist., Amchitka Is., Alaska; 5–8, 18.)
- xD *1978b Domning, D.P. (North Pacific sirs. & desmostylians; 2, 107–132, 139–146.)
- 1978 Simenstad et al. (HG; Aleutian Islands; former ecological role; m409.)
- x 1981d Domning, D.P. (fossil sirs.; associations with marine plants; 417–420.)
- x 1981 Webb et al. (*Metaxytherium*; Late Mioc., Love site, Florida; 517, 535.)
- x 1982b Domning, D.P. (trichechids; South America; evolution & environmental changes; 607, 610–616.)
- x 1982c Domning, D.P. (*Metaxytherium serresii*; Mioc.-Plioc., Mediterranean; seagrasses & salinity crisis; shark predation; 29–31.)
- x 1982 Domning, Morgan & Ray (Eoc. sirs. & seagrasses; 61–63.)
- x 1983 Bizzotto, B. (*Prototherium intermedium*; Late Eoc., Italy; 99.)
- x 1983 Morgan & Pratt (*Metaxytherium*; Early Mioc., Florida; 20–23.)
- D 1984 Akamatsu, M.
- D 1984 Goto & Kuga
- D 1984 Itoigawa, J.
- D 1984 Taguchi, E. (*Paleoparadoxia*)
- D 1984 Takayasu & Nakamura
- D 1984 Yamanoi, T.
- D 1984 Yoshida, K. (*Paleoparadoxia*)
- x 1986 Domning & Ray (halitheriine; Early Mioc., Oregon; climate; 273–274.)
- xD 1986 Domning et al. (desmostylians; lifestyle; 47–48.)
- D 1986a Suzuki et al. (*Paleoparadoxia*; Japan)
- x 1987 Domning & Thomas (*Metaxytherium serresii*; Plioc., Libya; taphonomy, 209; paleoecology of post-Messinian Mediterranean, 229–230.)
- x 1987a Domning, D.P. (hydrodamalines; pop. acc.; 64, 66–71.)
- D 1987 Ogasawara & Morita (*Paleoparadoxia*; Japan)
- xD 1988 Estes & Steinberg (sirs. & desmostylians; North Pacific; evolution of kelp; 21–22.)
- 1988 Gray, J.
- xD 1989a Domning, D.P. (sirs. & desmostylians; North Pacific; evolution of kelp; 53–56.)
- x 1989b Domning, D.P. (sirs.; Mioc., Suwannee R., Florida; 55–56, 59.)
- x 1989c Domning, D.P. (rytiodontines; use of tusks; 426.)
- x 1989d Domning, D.P. (rytiodontines; use of tusks; 435–436.)
- xD 1989 Estes & Steinberg (sirs. & desmostylians; North Pacific; evolution of kelp; 57–60.)
- x 1989 Morgan, G.S. (sirs.; Early Mioc., Suwannee R., Florida; 33–34.)
- xD 1990 Aranda-Manteca, F.J. (*Metaxytherium*, *Desmostylus*; Mioc., Baja California; 100, 103–104, 108, 111, pl. 3.)
- x 1990a Domning, D.P. (rhizivory experiments; 34–36.)
- x 1990 Donovan et al. (*Prorastomus sirenooides*; Middle Eoc., Jamaica; 661–662.)
- x *1990 Ivany et al. (*Protosiren*; Middle Eoc., Florida; seagrass community; 244–258.)

- xD 1990 Ogasawara & Morita (*Paleoparadoxia*; Japan; 29–30.)
- xD 1990 Repenning & Packard (*Paleoparadoxia*; Mioc., California; 199–203.)
- x 1991 Pervesler & Roetzel (*Metaxytherium krahuletzii*; Mioc., Austria; 97–98.)
- x *1992 Gingerich, P.D. (Eoc. & Olig., Egypt; 35, 63, 67, 76–77, 79.)
- x 1994a Domning, D.P. (Caribbean sirs. & seagrasses; pop. acc.; 72–73.)
- D *Paleoparadoxia* Reinhart, 1959
- xDv 1951 DEREK (“*Desmostylus*”; Izumi, Japan; discovery & collection; 414.)
- xDv 1952 DEREK (“*Desmostylus*”; Izumi, Japan; locality recollected; 144.)
- D 1959 Reinhart, R.H. (n.gen.)
- xD *1963 Mitchell & Repenning (chronologic & geographic range; 3–4, 11–16.)
- xD *1963 Mitchell, E.D., Jr. (Mioc., San Clemente Is., California; 192–199.)
- xDv 1964 Mitchell & Lipps (Mioc., San Clemente Is., California; 214–215.)
- xD 1964 Mitchell, E.D., Jr. (pachyostosis; 214.)
- xD 1964 Nolan, T.B. (distr.; A137.)
- xD 1965a Anon. (Stanford specimen, California; pop. acc.; 49, 53.)
- D 1965b Anon.
- xD 1965 Mitchell & Lipps (Mioc., San Clemente Is., California; 4–6.)
- xD 1965 Repenning, C.A. (Stanford skeleton; drawing; 1, 3.)
- xD 1966 Mitchell, E.D., Jr. (artist’s reconstruction; 57.)
- D 1966c Shikama, T.
- xD 1968 Romer, A.S. (skeleton; m200–201.)
- xD 1970a Reinhart, R.H. (m243.)
- xD 1970 Zuidema, H.P. (pop. acc.; 20–24.)
- xD 1972 Barnes, L.G. (Mioc., California; 141–142.)
- xD 1972a Domning, D.P. (distr.; 146, 149.)
- D 1972 Hasegawa, U.
- xD 1975 Reinhart, R.H. (validity of genus reasserted; 826.)
- xD 1977 Hasegawa, Y. (artists’ reconstructions; pop. acc.; 90–91.)
- xD 1978b Domning, D.P. (?competition w/ sirs., 113–115; Mioc., California, 150–151.)
- D 1978 Fujimoto & Sakamoto (Japan)
- D 1978 Kamei, T.
- xD 1982 Kleinschmidt, A. (m378–379.)
- D 1984 Kamei, T.
- xD 1984 Raschke, R.E. (Middle Mioc., California; m64.)
- D 1986 Inuzuka & Karasawa
- D *1986a Suzuki et al. (Japan)
- D *1986b Suzuki et al. (Japan)
- xD 1986 Takahashi et al. (Mioc., Japan; “*Dugong*” of Inuzuka et al. [1980] possibly a tooth of *Paleoparadoxia*; 317.)
- D 1987 Ogasawara & Morita (Japan; paleoecology)
- D 1987 Suzuki & Wako
- D 1988b Kamiya, H. (tooth cementum)
- xD 1990 Ogasawara & Morita (Japan; paleoecology; 29–30.)
- D 1992 Kamiya, T.
- D *Paleoparadoxia tabatai* (Tokunaga, 1939) Reinhart, 1959
- D *1959 Reinhart, R.H. (n.comb.)
- D *1961 Ijiri & Kamei (skull)
- xD *1963 Mitchell & Repenning (chronologic & geographic range; 11–12.)
- xD 1963 Mitchell, E.D., Jr. (teeth; 194, 198.)
- D 1966a Shikama, T.
- D *1966c Shikama, T.
- xD *1968 Shikama, T. (skeleton; 21–26, pls. 3–6.)
- xD *1972 Ikebe et al. (Japan; stratigraphic range; 47, 65–66.)
- D 1973 Kobayashi & Kamei
- xD 1973 Shikama et al. (Japan; stratigraphic range; 138, 140–141.)
- D 1974 Kamei & Okazaki
- D 1977 Inuzuka, N.
- xD 1977 Kamei & Okazaki (stratigraphic range Middle-Late Mioc.; 354.)
- D 1977 Sato & Ijiri
- xD 1978 Susuki & Stadum (Mioc., San Clemente Is., California; 5, 21.)
- D 1980 Inuzuka & Murai
- D 1980 Okubo et al.
- xD 1981 Clark, J.C. (Late Mioc., Santa Cruz, California; 27.)
- D 1981 Hirota, K.
- xD 1982 Reinhart, R.H. (review; comp. w/ other desmostylians; 552–554.)
- D 1983 Sakamoto, O.
- D 1985 Kamiya et al. (brain)
- D 1985 Ono & Uyeno
- xD 1986 Domning et al. (classification & affinities, 5, 36–38, 45; comp. w/ *Behemotops*, 15–17, 20–24, 29–30; paleoecology, 47–48.)
- D 1988a Kamiya, H. (enamel histology)
- D *1989 Kamei et al. (Tsuyama, Japan)
- xD 1990 Repenning & Packard (“*P. tabatai*”; California [Stanford specimen]; taphonomy, pathology, locomotion; 199–203.)
- xD 1991 Clark, J.M. (comp. w/ *P. weltoni*; 490–505.)
- D 1992 Kaneko & Goto (Japan)
- D 1992 Kaneko & Inuzuka (Japan)
- xD 1992 Thewissen & Domning (m495.)
- D *Paleoparadoxia weltoni* Clark, 1991
- xDv 1976 Phillips et al. (“*Paleoparadoxia*”; Late Olig. [actually Early Mioc.?], Point Arena, California; 152.)

- xD*1991 Clark, J.M. (n.sp.; ?Early Mioc., California; 490-508.)
- D Paleoparadoxiidae Reinhart, 1959 (family)
- D 1953 Reinhart, R.H. ("Family Paleoparadoxia"; nomen nudum)
- D *1959 Reinhart, R.H. (n.fam.)
- xD 1963 Mitchell, E.D., Jr. (history of name; 193.)
- xD 1986 Domning et al. (history of name; 5.)
- Panama (SEE ALSO: Central America)
- x *1920 Goldman, E.A. (TMM; 68-71.)
- 1937 Lothrop, S.K.
- 1964 Ladd, J.
- x 1964 Lapham, L.H. (TMM from Guyana; weed control; m39.)
- x *1967 MacLaren, J.P. (TMM, TI; weed & insect control; 387-393.)
- 1968 Klinge, P.
- 1970 Mendez, E.
- 1980 Wing, E.S. (TMM)
- x 1981 Schad et al. (TMM; Panama Canal & Gatun Lake; 1-4.)
- x *1982 Montgomery et al. (TMM; Panama Canal; possible entry of Pacific; 257-258.)
- x 1985 Muizon & Domning (TMM; entry of Pacific reported; 209.)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 583-584, 607.)
- *1990 Mou Sue et al. (TMM; distr. & status)
- Papua New Guinea (SEE ALSO: Ri)
- 1899 Guise, R.E.
- 1900 Etheridge, R., Jr. (*H. dugong*, ?Pleist., Woodlark Is.)
- x *1901 Anon. (DD; Torres Strait; hunting; 21238-21239.)
- 1901a Finsch, O. (DD; hunting)
- x *1905 De Vis, C.W. (*Halicore brevirostris*, n.sp.; ?sub-fossil, Woodlark Is.; 27-30.)
- x 1923 Petit, G. (DD; New Guinea, 82; Torres Strait, 83.)
- 1927 Landtman, G. (DD; hunting rituals)
- x 1973 Bertram & Bertram (DD; distr. & status; 309.)
- 1977a Hudson, B.E.T. (DD; conservation)
- 1977b Hudson, B.E.T. (DD)
- x 1977 Ligon & Hudson (DD; aerial survey; 1-5.)
- 1978 Hudson, B.E.T. (DD; pop. acc.)
- 1979 Hudson, B.E.T. (DD)
- 1979 Parker, F. (DD)
- x 1980 Blair, D. (DD; trematode *Indosolenorchis hispidinaceus*; 512-513.)
- 1980 Carrier & Carrier (DD)
- x *1980a Hudson, B.E.T. (DD; conservation; 1-102.)
- 1980b Hudson, B.E.T. (DD)
- 1980c Hudson, B.E.T. (DD)
- 1980d Hudson, B.E.T. (DD)
- 1980e Hudson, B.E.T. (DD)
- 1980 Johnstone & Hudson (DD)
- 1980 Olewale & Sedu (DD; Western Province)
- x 1980 Sander, H. (DD; Manus Province; feeding habits; 1-31.)
- 1981 Anon. (DD)
- x 1981a Blair, D. (DD; parasitic flukes; 2.)
- 1981a Hudson, B.E.T. (DD)
- x 1981b Hudson, B.E.T. (DD; conservation & public education; 123-141.)
- x 1981 Johnstone & Hudson (DD; mouth samples of diet; 681-690.)
- x 1981 Maynes & Hudson (DD; on postage stamp; 4-6.)
- x 1982 Marsh & Heinsohn (DD; conservation; 5.)
- x 1982 Molnar, R.E. (*Halicore brevirostre* [sic], ?Pleist., Woodlark Is., 676, 679; *H. dugong*, ?Pleist., Woodlark Is., 680.)
- x 1982 Wagner, R. (New Ireland; "ri" not a dugong; 33-39.)
- x 1983 Mead, J.G. (New Ireland; "ri" not a porpoise, possibly a dugong; 161-162.)
- x 1983 Sibert, J.R. (New Ireland; "ri" probably a marine mammal; 159-161.)
- x 1983 Tisdell, C.A. (DD; hunting & conservation; 14-15.)
- x 1983 Wagner et al. (New Ireland; "ri" not a dugong; 113-125.)
- x 1984 Hudson, B.E.T. (DD; hunting; pop. acc.; 298-301.)
- x 1985 Beckjord, J.-E. (New Ireland; "ri" a dugong; 154-155.)
- x 1985 Greenwell, J.R. (New Ireland; "ri" not a dugong; 151-154.)
- x 1985 Sibert, J.R. (New Ireland; "ri" possibly a dugong; 144-145.)
- x 1985 Wagner, R. (New Ireland; "ri" not a dugong; 149-151, 156.)
- 1986c Hudson, B.E.T. (DD; traditional hunting & conservation)
- x 1986a Marsh, H. (DD; Torres Strait; status; 53-76.)
- x 1986 Tisdell, C.A. (DD; conservation; 102-103.)
- x *1986 Williams, T.R. (New Ireland; "ri" definitely a dugong; 61-68.)
- 1987 Bertram, G.C.L. (DD)
- x *1987 Greenwell, J.R. (New Ireland; "ri"; history of study; 140-144.)
- x 1988 Sehm, G.G. (New Ireland; "ri" not a dugong; 145-149.)
- x 1988 Williams, T.R. (New Ireland; "ri" a dugong; 149-151.)
- x 1989 Bay & Demoulin (DD; Hansa Bay; m12.)
- x 1992 Blair & Hudson (DD; trematode *Lankatrematoides gardneri*; 1077.)

- Paraliosiren* Abel, 1906 (= *Prototherium*)
- x *1906 Abel, O. (n.gen.; Late Eoc., Italy; 59.)
 - x 1932a Simpson, G.G. (m471, 473.)
 - x 1941 Kretzoi, M. (in classification; 154–155.)
 - x 1945 Simpson, G.G. (syn. of *Prototherium*; m135.)
 - x 1982 Kleinschmidt, A. (syn. of *Prototherium*; 378–379.)

- Paraliosiren suessi* Abel, 1906 (= *Prototherium veronense*)
- x *1906 Abel, O. (n.gen.n.sp.; Late Eoc., Italy; 59.)
 - x 1980 Kordos, L. (nature of type material; 387.)

- Paralitherium* Kordos, 1977
- x *1977 Kordos, L. (n.gen.; Late Eoc., Hungary; 349–367.)

- Paralitherium tarkanyense* Kordos, 1977
- x *1977 Kordos, L. (n.gen.n.sp.; Late Eoc., Hungary; 349–367.)
 - x 1980 Kordos, L. (comp. w/ Hungarian *Eotheroides*; 385, 387–389, 396–397.)
 - x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 39, 58.)
 - 1985b Kordos, L.

In the following citations of references to species of parasites, where a sir. taxon is not specified, reference is to the sir. species native to the geographic area(s) mentioned.

- Parasites: *Amphistoma fabaceum* Diesing, 1839 (Trematoda)
- x 1838 Diesing, C.M. (nomen nudum; m189.)
 - x *1839 Diesing, C.M. (n.gen.n.sp.; *Manatus exunguis*, intestine; 236.)
 - 1850 Diesing, C.M.
 - x 1875 Chapman, H.C. ("*Amphistomum*"; m456.)
 - 1889 Stedman, J.M.
 - x 1890 Leidy, J. ("*Amphistomum*"; *Trichechus*; intestine & nasal passages; 413–414.)
 - x 1906b Dexler & Freund ("*Amphistomum*"; m70.)
 - x 1908b Gudernatsch, J.F. ("*?Amphistomum fabaceum*"; TM; organs, brain; 227, 232.)
 - x 1981a Blair, D. (syn. of *Chiorchis fabaceus*; 2, 12–13.)
 - x 1981c Domning, D.P. (m131.)

- Parasites: *Anoplocephala* Blanchard, 1848 (Cestoda)
- x 1988 Beck & Forrester (Florida; 629, 632–633.)

- Parasites: *Ascaris* Linnaeus, 1758 (Nematoda)
- x 1838 Owen, R. (DD; cardiac gland; 30.)
 - x *1859 Baird, W. (DD, HG; 148–149, pl. 56.)

- Parasites: *Ascaris dugonis* Diesing, 1851 (Nematoda; = *Paradujardinia halicoris*)
- x *1851 Diesing, C.M. (n.sp.; 191, 502.)

- x 1859 Baird, W. (synonymy; 149.)
- x 1899 Stiles & Hassall (synonymy; 147, 149.)
- x 1906b Dexler & Freund (m70.)
- x 1981 Sprent, J.F.A. (syn. of *Paradujardinia halicoris*; 319.)

Parasites: *Ascaris halichoris* Owen, 1833 (Nematoda; = *Paradujardinia halicoris*)

- *1833 Owen, R. (n.sp.)
- x *1859 Baird, W. (Red Sea; history of study, redescription; 148–149, pl. 56.)
- 1861 Diesing, C.M.
- 1889 Parona, C.
- x *1899 Stiles & Hassall ("*A. halicoris*"; review; 108, 147–151, 169.)
- 1903 Linstow, O.v. (Red Sea)
- x *1905 Linstow, O.v. ("*A. halicoris*"; DD; anatomy & nomenclature; 258–260, pl. 11.)
- x 1906b Dexler & Freund ("*A. halicoris*"; Australia; 70.)
- 1906 Linstow, O.v.
- x *1981 Sprent, J.F.A. (syn. of *Paradujardinia halicoris*; 312, 319.)

Parasites: *Ascaris rytinae* Diesing, 1851 (Nematoda; nomen dubium)

- x *1851 Diesing, C.M. (n.sp.; HG; 190, 502.)
- 1878 Linstow, O.v.
- xv *1899 Steller, G.W. (HG, stomach & duodenum; 191.)
- x *1899 Stiles & Hassall (HG; review; 100, 108, 163–164, 169.)
- x 1978b Domning, D.P. (HG; review; 115.)
- x 1981 Sprent, J.F.A. (m319.)

Parasites: Bacteria: SEE Bacteriology

Parasites: *Balanus* Bruguière, 1789 (Cirripedia)

- x 1906b Dexler & Freund (DD; 69.)
- x 1906c Dexler & Freund (DD; 569.)

Parasites: *Balanus trigonus* Darwin (Cirripedia)

- x 1965 Stubbings, H.G. (Senegal; 891.)

Parasites: *Chelonibia* Leach, 1817 (Cirripedia)

- x 1906b Dexler & Freund ("*Chelonobia*"; DD; 69.)
- x 1906c Dexler & Freund ("*Chelonobia*"; DD; 569.)

Parasites: *Chelonibia manati* Gruvel, 1903 (Cirripedia)

- x *1903 Gruvel, A. ("*Chelonobia manati*," n.sp.; Congo; 116–120, pls. 2, 4.)
- x 1916 Pilsbry, H.A. (Congo; review; 265.)
- x 1965 Stubbings, H.G. (Senegal; 876, 893–899.)
- x 1988 Beck & Forrester (in checklist; 633.)

- Parasites: *Chelonibia patula* (Ranzani, 1818) (Cirripedia)
- x 1965 Stubbings, H.G. (Senegal; 893.)
- Parasites: *Chiorchis* Fiscoeder, 1901 (Trematoda)
- x 1977 Boever et al. (TI, large intestine; in capt.; 5-6.)
- Parasites: *Chiorchis fabaceus* (Diesing, 1838) Fiscoeder, 1901 (Trematoda)
- *1901 Fiscoeder, F.
1902 Fiscoeder, F.
- x 1926 Derscheid, J.M. (Congo; 30.)
- x *1929 Stunkard, H.W. (history of study, & Belgian Congo; 254-258, 282-283.)
- 1932 Price, E.W. (Africa)
- 1934 Canavan, W.P.N.
- 1934 Travassos, L.P.
- x 1936 Baylis, H.A. (Nigeria & elsewhere; 257.)
- x 1960 Hutton & Sogandares (Florida; m290.)
- 1964 Hutton, R.F.
- x 1965 Lluch B., D. (TM, small intestine; Mexico; 418.)
- 1969 Travassos et al.
- x 1970 Radhakrishnan & Bradley (TML, cecum & colon; Florida; 59.)
- 1973 Bravo-Hollis & Caballero D.
- x *1975 Forrester et al. (TM, distr. in intestine; Florida; 567-568.)
- x 1979 Forrester et al. (TM, intestines & cecum; Florida; 5.)
- x 1981a Blair, D. (m2, m13.)
- x 1982b Domning, D.P. (zoogeographic significance; 613.)
- x *1988 Beck & Forrester (Florida; 628-633, 635.)
- Parasites: *Chiorchis groschafti* Coy Otero, 1989 (Trematoda)
- *1989 Coy Otero, A. (n.sp.; TM; Cuba)
- Parasites: *Cochleotrema* Travassos and Vogelsang, 1931 (Trematoda)
- x *1931 Travassos & Vogelsang (n.gen.; 143-147.)
- x *1981a Blair, D. (revision; 4-6, 10-12, 19, 21.)
- Parasites: *Cochleotrema cochleotrema* Travassos and Vogelsang, 1931 (Trematoda)
- x *1931 Travassos & Vogelsang (n.gen.n.sp.; TM, stomach; in capt.; 143-147.)
- x 1932 Sokoloff & Caballero (m167.)
- 1969 Travassos et al.
- x *1981a Blair, D. (revision; 11-13, 15-16, 42.)
- x *1988 Beck & Forrester (Florida; 628-633, 635.)
- Parasites: *Cochleotrema indicum* (Sharma & Gupta, 1971) Blair, 1981 (Trematoda)
- x *1981a Blair, D. (n.comb.; revision; 11-12, 15-17, 19, 30, 34, 42, 45, 51-53.)
- x 1986 Blair, D. (photo; S21.)
- x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Cyamus rhytinae* Brandt, 1846 (= *Cyamus ovalis*?)
- *1846b Brandt, J.F. (n.sp.)
1871 Brandt, A.
- x *1873 Lütken, C.F. (syn. of *C. ovalis*; 270-274, pl. 2.)
- xv *1899 Steller, G.W. (HG; Bering Is.; 201.)
- x *1967 Leung, Y.-M. (syn. of *C. ovalis*; 279-280, 287.)
- x 1978b Domning, D.P. (HG; review; 115.)
- x 1982 Kleinschmidt, A. (m405.)
- Parasites: *Dujardinascaris halicoris* (Owen, 1833) Baylis, 1947 (Nematoda; = *Paradujardinia halicoris*)
- x 1981 Sprent, J.F.A. (syn. of *Paradujardinia halicoris*; 312, 319.)
- Parasites: *Dujardinia halicoris* (Owen, 1833) Baylis, 1920 (Nematoda; = *Paradujardinia halicoris*)
- x 1941 Johnston & Mawson (Australia; 432.)
- 1941 Yamaguti, S. (Palau)
- x 1981 Sprent, J.F.A. (syn. of *Paradujardinia halicoris*; 312, 319.)
- Parasites: *Eimeria manatus* Upton, Odell, Bossart, and Walsh, 1989 (Protozoa)
- x *1989 Upton et al. (n.sp.; Florida; 87-90.)
- Parasites: *Eimeria nodulosa* Upton, Odell, Bossart, and Walsh, 1989 (Protozoa)
- x *1989 Upton et al. (n.sp.; Florida; 87-90.)
- Parasites: *Eimeria trichechi* Lainson, Naiff, Best, and Shaw, 1983 (Protozoa)
- x *1983 Lainson et al. (n.sp.; TI; Brazil; 287-289.)
- x 1988 Beck & Forrester (in checklist; 633.)
- x 1989 Upton et al. (comp. w/ *Eimeria* spp. from Florida; 88.)
- Parasites: *Entozoa dugonis* Diesing, 1851 (Nematoda; = *Paradujardinia halicoris*)
- x *1851 Diesing, C.M. (name published as syn. of *Ascaris Dugonis*; 191.)
- Parasites: *Faredifex* Blair, 1981 (Trematoda)
- x *1981a Blair, D. (n.gen.; 40-41, 44.)
- Parasites: *Faredifex clavata* Blair, 1981 (Trematoda)
- x *1981a Blair, D. (n.gen.n.sp.; 26, 40-41, 43, 45, 51-53.)
- x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Folitrema* Blair, 1981 (Trematoda)
- x *1981a Blair, D. (n.gen.; 31.)

- Parasites: *Folitrema jecoris* Blair, 1981 (Trematoda)
 x *1981a Blair, D. (n.gen.n.sp.; 18, 31-32, 34, 51-53.)
 x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Haerator* Blair, 1981 (Trematoda)
 x *1981a Blair, D. (n.gen.; 41, 43-44.)
- Parasites: *Haerator caperatus* Blair, 1981 (Trematoda)
 x *1981a Blair, D. (n.gen.n.sp.; 22, 38, 43-47, 51-53.)
 x 1988 Beck & Forrester (in checklist; 634.)
 x 1991 Frazier & Mundkur (DD; intestine; India; 375.)
- Parasites: *Harpactichechus* Ortiz, Lalana & Torres, 1992 (Copepoda)
 x *1992 Ortiz et al. (n.gen.; TMM; Cuba; 118.)
- Parasites: *Harpactichechus manatorum* Ortiz, Lalana & Torres, 1992 (Copepoda)
 x *1992 Ortiz et al. (n.gen.n.sp.; TMM; Cuba; 117-127.)
- Parasites: *Harpacticus pulex* Humes, 1964 (Copepoda)
 x *1964 Humes, A.G. (n.sp.; TM; Florida; in capt.; 517-528.)
 x 1981 Zeiller, W. (TM; Florida; in capt.; 107-108.)
 x 1988 Beck & Forrester (m633.)
- Parasites: *Heterocheilus* Diesing, 1839 (Nematoda)
 x *1839 Diesing, C.M. (n.gen.; TI; Brazil; 229-232, pls. 15, 19.)
 1965 Chabaud & Bain
 x 1977 Petter, A.J. (evolution, in relation to origin of sirs.; 153.)
 x *1981 Sprent, J.F.A. (redescription; 310-311.)
- Parasites: *Heterocheilus domningi* Sprent, 1983 (Nematoda)
 x *1983 Sprent, J.F.A. (n.sp.; TS; Zaire; 69-76.)
 x 1988 Beck & Forrester (in checklist; 633.)
- Parasites: *Heterocheilus tunicatus* Diesing, 1839 (Nematoda)
 x *1839 Diesing, C.M. (n.gen.n.sp.; TI; Brazil; 230-232, pls. 15, 19.)
 x 1851 Diesing, C.M. (TI; Brazil; 209, 502.)
 1884 Drasche, R.v. (redescription)
 x 1899 Stiles & Hassall (m107, m170.)
 x 1906b Dexler & Freund (m70.)
 x 1981c Domning, D.P. (m131.)
 x *1981 Sprent, J.F.A. (redescription; 309-315, 322-325, pls. 1-2.)
 x *1983 Sprent, J.F.A. (comp. w/ *H. domningi*, 69, 73-75; TM, 69, 73-74.)
 x *1988 Beck & Forrester (Florida; 628-635.)
- Parasites: *Indosolenorchis* Cruz, 1951 (Trematoda)
 x *1951 Cruz, H. (n.gen.; DD, cecum; Sri Lanka; 135-141, pls. 17-20.)
 1958 Mackerras, M.J.
 x 1980 Sey, O. (syn. of *Solenorchis*; 223-228.)
- Parasites: *Indosolenorchis hirudinaceus* Cruz, 1951 (Trematoda)
 x *1951 Cruz, H. (n.gen.n.sp.; DD, cecum; Sri Lanka; 135-141, pls. 17-20.)
 x 1954 Cruz & Fernand (Sri Lanka; 499, 503.)
 x 1976 Allen et al. (DD, cecum; Sulawesi; 41.)
 x *1980 Blair, D. (DD, cecum & large intestine; Indopacific; 511-525.)
 x 1980 Sey, O. (syn. of *Solenorchis travassosi*; 223-228.)
 x 1981c Blair, D. (in checklist; 281.)
 x 1988 Beck & Forrester (in checklist; 634.)
 x 1991 Frazier & Mundkur (DD; intestine; India; 375.)
- Parasites: *Labicola* Blair, 1979 (Trematoda)
 x *1979 Blair, D. (n.gen.; DD, upper lips; Australia; 519-526.)
- Parasites: *Labicola elongata* Blair, 1979 (Trematoda)
 x *1979 Blair, D. (n.gen.n.sp.; DD, upper lips; Australia; 519-526.)
 x 1981b Blair, D. (m46.)
 x 1981c Blair, D. (technique for collection, 276; in checklist, 281.)
 x 1986 Blair, D. (photo of flukes in section of DD lip; S21.)
 x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Lankatrema* Cruz and Fernand, 1954 (Trematoda)
 x *1954 Cruz & Fernand (n.gen.; DD, stomach; Sri Lanka; 501.)
 x 1977 Blair, D. (DD; Australia; 64.)
 x 1977 Marsh et al. (DD, stomach; Australia; 286-287, 291.)
 x *1981a Blair, D. (revision; 19-20, 28-29.)
 x 1981c Blair, D. (technique for collection, 277, 280; in checklist, 281.)
 x 1988 Dailey et al. (comp. w/ *Moniligerum*; 160, 162.)
- Parasites: *Lankatrema macrocotyle* Blair, 1981 (Trematoda)
 x *1981a Blair, D. (n.sp.; 14, 20-21, 23, 27-28, 51-53.)
 x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Lankatrema mannarensis* Cruz and Fernand, 1954 (Trematoda)
 x *1954 Cruz & Fernand (n.gen.n.sp.; Sri Lanka; 499-501, 503, 506-507.)

- x *1981a Blair, D. (revision; 20–21, 23–24.)
x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Lankatrema microcotyle* Blair, 1981 (Trematoda)
- x *1981a Blair, D. (n.sp.; 14, 20–21, 23–25, 27–28, 34, 51–53.)
x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Lankatrema minutum* Blair, 1981 (Trematoda)
- x *1981a Blair, D. (n.sp.; 14, 20–21, 23–24, 51–53.)
x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Lankatrematoides* Blair, 1981 (Trematoda)
- x *1981a Blair, D. (n.gen.; 28–29.)
x 1988 Dailey et al. (comp. w/ *Moniligerum*; 162.)
- Parasites: *Lankatrematoides gardneri* Blair, 1981 (Trematoda)
- x *1981a Blair, D. (n.gen.n.sp.; 18, 28–29, 31, 34, 51–53.)
x 1988 Beck & Forrester (in checklist; 634.)
x *1992 Blair & Hudson (DD, pancreas; Papua New Guinea; population structure; 1077–1079.)
- Parasites: Leeches
- x 1920 Beebe, W. (Guyana; m731.)
- Parasites: *Leptomera* Latreille, 1817 (Amphipoda)
- x 1873 Lütken, C.F. (suggested as parasite of HG; 272.)
x 1978b Domning, D.P. (?HG; review; 115.)
- Parasites: *Lobocephalus heterolobus* Diesing, 1838 (Nematoda; nomen nudum, = *Heterocheilus tunicatus*)
- x *1838 Diesing, C.M. (n.gen.n.sp.; nomen nudum; 189.)
x 1851 Diesing, C.M. (syn. of *Heterocheilus tunicatus*; 209.)
1920 Stiles & Hassall
x 1981 Sprent, J.F.A. (syn. of *Heterocheilus tunicatus*; 311.)
- Parasites: *Moniligerum* Dailey, Vogelbein, and Forrester, 1988 (Trematoda)
- x *1988 Dailey et al. (n.gen.; TM; Florida; 160.)
- Parasites: *Moniligerum blairi* Dailey, Vogelbein, and Forrester, 1988 (Trematoda)
- x 1988 Beck & Forrester (Florida; 629–630, 632–633.)
x *1988 Dailey et al. (n.gen.n.sp.; TM; Florida; 160–162.)
- Parasites: *Monostomum dujonis* Leuckart, 1875 (Trematoda; = *Opisthotrema dujonis*)
- *1875 Leuckart, R. (n.sp.; DD; Philippines)
x 1906b Dexler & Freund (m69.)
- x 1981a Blair, D. (syn. of *Opisthotrema dujonis*; 6, 8.)
- Parasites: *Nudacotyle undicola* Dailey, Vogelbein, and Forrester, 1988 (Trematoda)
- x *1988 Beck & Forrester (Florida; 629–631, 633.)
x *1988 Dailey et al. (n.sp.; TM; Florida; 161–163.)
- Parasites: *Opisthotrema* Fischer, 1883 (Trematoda)
- x *1981a Blair, D. (revision; 4–6, 10, 12, 21.)
- Parasites: *Opisthotrema australe* Blair, 1981 (Trematoda)
- x *1981a Blair, D. (n.sp.; 5–10, 30, 42, 51–53.)
x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Opisthotrema cochleare* Fischer, 1884 (Trematoda; = *Opisthotrema dujonis*)
- x 1906b Dexler & Freund (Australia; 69.)
x 1931 Travassos & Vogelsang (comp. w/ *Cochleotrema*; 143–144.)
x 1981a Blair, D. (syn. of *O. dujonis*; 6, 8, 13, 15.)
- Parasites: *Opisthotrema cochleotrema* (Travassos & Vogelsang, 1931) Price, 1932 (Trematoda; = *Cochleotrema cochleotrema*)
- x 1979 Budiarmo et al. (DD, nasal passages; Sulawesi; 568.)
x 1979 Forrester et al. (TM, nasal passages; Florida; 5.)
x 1981a Blair, D. (syn. of *Cochleotrema cochleotrema*; 13, 15, 17.)
- Parasites: *Opisthotrema dujonis* (Leuckart, 1875) Price, 1932 (Trematoda)
- x 1954 Crusz & Fernand (m503.)
x 1976 Allen et al. (DD, eustachian tube; Sulawesi; 41.)
x 1977 Blair, D. (DD; Australia; 64.)
x 1979 Budiarmo et al. (DD, eustachian tubes; Sulawesi; 568.)
x *1981a Blair, D. (revision; 5–10, 19, 30, 42, 45, 51–53.)
x 1981c Blair, D. (in checklist; 281.)
x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Opisthotrema nasalis* Budiarmo et al., 1979 (Trematoda; nomen nudum, = *Cochleotrema indicum*)
- x 1979 Budiarmo et al. (n.sp.; nomen nudum; DD, nasal passages; Sulawesi; 568.)
x 1981a Blair, D. (syn. of *Cochleotrema indicum*; 17.)
- Parasites: *Opisthotrema pulmonale* von Linstow, 1904 (Trematoda; = *Pulmonicola pulmonalis*)
- *1904 Linstow, O.v. (n.sp.; DD, lungs; Torres Strait)
1926 Poche, F.
x 1981a Blair, D. (syn. of *Pulmonicola pulmonalis*; 5–6, 17, 19.)

- Parasites: *Paracochleotrema* Sharma & Gupta, 1971 (Trematoda; = *Cochleotrema*)
- x *1971 Sharma & Gupta (n.gen.; DD, nasal passages; 285.)
- x 1981a Blair, D. (syn. of *Cochleotrema*; 10, 12.)
- Parasites: *Paracochleotrema indicum* Sharma and Gupta, 1971 (Trematoda; = *Cochleotrema indicum*)
- x *1971 Sharma & Gupta (n.gen.n.sp.; DD, nasal passages; 285–288.)
- x 1981a Blair, D. (syn. of *Cochleotrema indicum*; 15.)
- x 1981c Blair, D. (technique for collection, 276, 280; in checklist, 281.)
- Parasites: *Paradujardinia* Travassos, 1933 (Nematoda)
- *1933 Travassos, L.P. (n.gen.)
- x 1977 Petter, A.J. (evolution, in relation to origin of sirs.; 153–155.)
- x *1981 Sprent, J.F.A. (redescription; 312, 319.)
- Parasites: *Paradujardinia halicoris* (Owen, 1833) Travassos, 1933 (Nematoda)
- xv 1834 Rüppell, E. (Red Sea; 106.)
- *1933 Travassos, L.P.
- x 1954 Cruz & Fernand (DD, stomach; Sri Lanka; 499.)
- x 1957 Gohar, H.A.F. (DD, stomach; Red Sea; 43–46, pl. 3.)
- x 1973 Bertram & Bertram (DD, stomach; Queensland; 312.)
- x 1976 Allen et al. (DD, stomach; Australia; 41.)
- x 1977 Jueco, N.L. (DD, stomach & small intestine; Philippines; 257–262.)
- x *1977 Marsh et al. ("*P. halicoris*"; DD, stomach; Australia; 286, 291.)
- x 1981c Blair, D. (in checklist; 281.)
- x 1981 Campbell & Ladds (DD, stomach; Queensland; 179.)
- x *1981 Sprent, J.F.A. (redescription; 309–310, 312, 314–325, pls. 2–3.)
- x 1983 Sprent, J.F.A. (comp. w/ *Heterocheilus*; 75.)
- x 1988 Beck & Forrester (in checklist; 634.)
- x 1988 Hasegawa, H. (DD, stomach & small intestine; Okinawa; 23–25.)
- Parasites: *Platylepas bissexlobata* de Blainville (Cirripedia)
- 1854 Darwin, C.
- x 1884 Fischer, P. (DD; New Caledonia; 359.)
- Parasites: *Platylepas hexastylus* (Fabricius, 1798) (Cirripedia)
- 1854 Darwin, C.
- x 1916 Pilsbry, H.A. (DD & *Trichechus*; 284–286.)
- x 1962 Marlow, B.J. ("*P. hexastylus*"; DD; New South Wales; 433.)
- x 1965 Stubbings, H.G. (TS; 876, 891, 894, 899–902.)
- x 1988 Beck & Forrester (in checklist; 633–634.)
- Parasites: *Plicatolabia hagenbecki* (Khalil and Vogelsang, 1932) Mosgovoy, 1951 (Nematoda; = *Heterocheilus tunicatus*)
- x 1970 Radhakrishnan & Bradley (TML, stomach; Florida; 59.)
- x 1979 Forrester et al. (TM, stomach; Florida; 5.)
- x 1981a Beusse et al. ("*Plicatolabia* sp."; TM, stomach & intestines; Florida; 98.)
- x *1981 Sprent, J.F.A. (syn. of *Heterocheilus tunicatus*; 310–311.)
- Parasites: *Proto* Leach, 1814 (Amphipoda)
- x 1873 Lütken, C.F. (suggested as parasite of HG; 272.)
- x 1978b Domning, D.P. (?HG; review; 115.)
- Parasites: *Pulmonicola pulmonalis* (von Linstow, 1904) Poche, 1926 (Trematoda)
- x 1931 Travassos & Vogelsang (comp. w/ *Cochleotrema*; 143.)
- x 1954 Cruz & Fernand (m503.)
- x *1981a Blair, D. (revision; 17, 19.)
- x 1981c Blair, D. (in checklist; 281.)
- x 1988 Beck & Forrester (in checklist; 634.)
- Parasites: *Rhabdiopoeus* Johnston, 1913 (Trematoda)
- x 1977 Blair, D. (DD; Australia; 64.)
- x *1981a Blair, D. (revision; 33, 35, 41, 44.)
- Parasites: *Rhabdiopoeus taylori* Johnston, 1913 (Trematoda)
- x 1954 Cruz & Fernand (DD, intestine; m503.)
- x 1957 Gohar, H.A.F. ("*Rhabdiopaeus*"; DD, cecum; Red Sea; 45–46.)
- x *1981a Blair, D. (revision; 22, 35–37, 45, 51–53.)
- x 1981c Blair, D. (in checklist; 281.)
- x 1988 Beck & Forrester (in checklist; 634.)
- x 1991 Frazier & Mundkur (DD; intestine; India; 375.)
- Parasites: *Schizamphistoma manati* Sokoloff and Caballero, 1932 (Trematoda; = *Chiorchis fabaceus*)
- x *1932 Sokoloff & Caballero (n.sp.; 163–167.)
- Parasites: *Sirenocyamus* Brandt, 1846 (= *Cyamus*)
- x *1846b Brandt, J.F. (n.gen.; name proposed for animal described by Steller; 189–192.)
- x *1967 Leung, Y.-M. (syn. of *Cyamus*; 279–280, 287.)
- x 1978b Domning, D.P. (HG; review; 115.)
- Parasites: *Sirenocyamus rhytinae* Brandt, 1846 (= *Cyamus ovalis*?)
- x *1846b Brandt, J.F. (n.gen.n.sp.; name proposed for animal

described by Steller; 189–192.)

- x *1873 Lütken, C.F. (syn. of *Cyamus ovalis*; 270–274, pl. 2.)
 x 1893 Lütken, C.F. (m433.)
 xv *1899 Steller, G.W. (HG; Bering Is.; 201.)
 x 1899 Stiles & Hassall (m163.)
 x *1967 Leung, Y.-M. (syn. of *Cyamus ovalis*; 279–280, 287.)
 x 1978b Domning, D.P. (HG; review; 115.)

Parasites: *Solenorchis* Hilmy, 1949 (Trematoda; = *Solenorchis travassosi*)

- *1949 Hilmy, I.S. (n.gen.; DD; Red Sea)
 x 1951 Crusz, H. (comp. w/ *Indosolenorchis*; 139–140.)
 x 1957 Gohar, H.A.F. (DD, cecum; Red Sea; 44–46, 48.)
 x 1980 Blair, D. (comp. w/ *Indosolenorchis*; 523–524.)
 x *1980 Sey, O. (revision; 223–228.)

Parasites: *Solenorchis baeri* Hilmy, 1949 (Trematoda; = *Solenorchis travassosi*)

- *1949 Hilmy, I.S. (n.sp.)
 x 1951 Crusz, H. (m140.)
 x 1954 Crusz & Fernand (m503.)
 x 1957 Gohar, H.A.F. (DD, cecum; Red Sea; 45–46, 48.)
 x *1980 Sey, O. (synonymized with *S. travassosi*; 223–228.)
 x 1981c Blair, D. (in checklist; 281.)
 x 1988 Beck & Forrester (in checklist; 634.)

Parasites: *Solenorchis gohari* Hilmy, 1949 (Trematoda; = *Solenorchis travassosi*)

- *1949 Hilmy, I.S. (n.sp.)
 x 1954 Crusz & Fernand (m503.)
 x 1957 Gohar, H.A.F. (DD, cecum; Red Sea; 45–46, 48.)
 x *1980 Sey, O. (synonymized with *S. travassosi*; 223–228.)
 x 1981c Blair, D. (in checklist; 281.)
 x 1988 Beck & Forrester (in checklist; 634.)

Parasites: *Solenorchis nagiubmahfouzi* Hilmy, 1949 (Trematoda; = *Solenorchis travassosi*)

- *1949 Hilmy, I.S. (n.sp.)
 x 1954 Crusz & Fernand (m503.)
 x 1957 Gohar, H.A.F. (DD, cecum; Red Sea; 45–46, 48.)
 x *1980 Sey, O. (synonymized with *S. travassosi*; 223–228.)
 x 1981c Blair, D. (in checklist; 281.)
 x 1988 Beck & Forrester (in checklist; 634.)

Parasites: *Solenorchis travassosi* Hilmy, 1949 (Trematoda)

- *1949 Hilmy, I.S. (n.sp.)
 x 1951 Crusz, H. (m140.)
 x 1954 Crusz & Fernand (DD, cecum, m503.)

- x 1957 Gohar, H.A.F. (DD, cecum; Red Sea; 45–46, 48.)
 x *1980 Sey, O. (revision & synonymy; 223–228.)
 x 1981c Blair, D. (in checklist; 281.)
 x 1988 Beck & Forrester (in checklist; 634.)

Parasites: *Taprobanella* Crusz & Fernand, 1954 (Trematoda)

- x *1954 Crusz & Fernand (n.gen.; DD, stomach; Sri Lanka; 501–503.)
 x 1977 Blair, D. (DD; Australia; 64.)
 x *1981a Blair, D. (revision; 37, 41, 44.)

Parasites: *Taprobanella bicaudata* Crusz and Fernand, 1954 (Trematoda)

- x 1954 Crusz & Fernand (n.gen.n.sp.; DD, stomach; Sri Lanka; 499, 501–503, 506–507.)
 x *1981a Blair, D. (revision; 26, 37–40, 42, 51–53.)
 x 1981c Blair, D. (in checklist; 281.)
 x 1988 Beck & Forrester (in checklist; 634.)

Parasites: *Toxoplasma gondii* (Protozoa)

- x 1983 Buergelt & Bonde (Florida; 1294–1296.)
 x 1988 Beck & Forrester (in checklist; 633.)

Parasites: *Typhlophorus hagenbecki* Khalil and Vogelsang, 1932 (Nematoda; = *Heterocheilus tunicatus*)

- *1932 Khalil & Vogelsang (n.sp.; TM; in capt.)
 x *1981 Sprent, J.F.A. (syn. of *Heterocheilus tunicatus*; 310–311.)

Parasites: *Zygoctyle* Stunkard, 1916 (Trematoda)

- 1950 Dollfus, R.P. (Djibouti)
 x 1954 Crusz & Fernand (m503.)
 x 1957 Gohar, H.A.F. (distinct from *Solenorchis*; m48.)
 x 1980 Blair, D. (comp. w/ *Indosolenorchis*; 523–524.)
 x *1980 Sey, O. (*Z. sp.* of Dollfus [1950] referred to *Solenorchis travassosi*; 223–228.)
 x 1981c Blair, D. (in checklist; 281.)
 x 1988 Beck & Forrester (in checklist; 634.)

Parasitology (SEE ALSO: Bacteriology; Community Ecology; Parasites)

- x 1846b Brandt, J.F. (HG; skin & intestinal parasites; 189–192.)
 x 1876 Chapman, H.C. (TMM; large intestine; m456.)
 1878 Linstow, O.v.
 x 1905 Townsend, C.H. (TML; in capt., New York; “flatworms” in brain & other organs; 97.)
 x 1906b Dexler & Freund (DD, 69–70; HG, *Trichechus*, 70.)
 x 1906c Dexler & Freund (DD; 569.)
 1913 Johnston, S.J. (DD; Queensland)
 1923 Baylis & Daubney (DD; India)

- 1924 Broch, H.
- 1931 Travassos & Vogelsang
- 1932 Price, E.W.
- x 1932 Sokoloff & Caballero (TMM; 163, 167.)
- 1940 Nigrelli, R.F.
- x 1941 Johnston & Mawson (DD; Australia; *Dujardinia*; 432.)
- 1950 Dollfus, R.P.
- 1950 Mohr, E. (HG; skin)
- x 1951b Moore, J.C. (TML; Florida; algae, barnacles; 26.)
- x 1953 Quiring & Harlan (TML; Florida; barnacles; 194.)
- x *1954 Cruz & Fernand (DD; 499–507.)
- x 1956 Harry, R.R. (DD; algae; 26.)
- x 1956 Tomkins, I.R. (TML; barnacles; 289.)
- x 1959 Jones, S. (DD; in capt., India; algae; 199.)
- x 1961 Jonklaas, R. (DD; algae; 3.)
- 1963 Bertram, G.C.L. (HG; skin)
- x 1967 Welsby, T. (DD; barnacles; 1: 104, 2: 234.)
- x 1968 Lemire, M. (microbiological digestion; 504–514.)
- 1972 Dailey & Brownell
- x 1972 Phillips, C. (TML; in capt., Florida; use of mullet to control algae; 37.)
- x 1976 Allen et al. (DD; Sulawesi; unidentified parasites; 41.)
- x 1977 Petter, A.J. (radiation of Ascaridoidea in sirs.; 151, 153–155.)
- x 1978b Domning, D.P. (HG; crustaceans, nematodes; 115.)
- x 1979 Anderson, P.K. (DD; remoras; 135–136.)
- x 1979 Hartman, D.S. (TML; Florida; nematode eggs, algae, diatoms, barnacles, remoras, arthropods, etc.; 23, 62–64, 88.)
- x 1979 Tas'an et al. (DD; Indonesia; laryngitis caused by flukes; 27–29.)
- x 1981b Blair, D. (DD; gen. acc.; 46.)
- x *1981c Blair, D. (DD; techniques for helminth collection; 275–285.)
- x 1981 Brownell et al. (DD; Palau; remoras; 32–33.)
- x 1981 Sprent, J.F.A. (invasion of sirs. by ascaridoids; 309, 324–325.)
- x 1981 Zeiller, W. (TML; in capt., Florida; *Harpacticus* ectoparasites, 107–108; use of mullet & copper sulfate to control algae, 108.)
- x 1982 Barnett & Johns (DD; Queensland; remoras; 522.)
- x 1984 Marsh, Heinsohn & Channells (DD; ovarian parasites; 745–747, 761–762.)
- x 1984 Marsh, Heinsohn & Marsh (DD; barnacles; 772.)
- x 1986 Blair, D. (DD; gen. acc.; S21–S22.)
- 1987 Geraci & St. Aubin
- x *1988 Beck & Forrester (TML & other sirs.; summary of parasites; 628–637.)
- 1992 Forrester, D.J.
- x 1992 Ortiz et al. (TM; Cuba; copepod *Harpactichechus manatorum* & peritrichid protozoan; 117–119.)
- Pathology (SEE ALSO: Bacteriology; Biochemistry; Natural Death or Injury; Parasites; Parasitology; Pollution, Effects of; Temperature, Effects of; Teratology)
- x 1876 Chapman, H.C. (TMM; in capt., Philadelphia; pericardial inflammation, constipation; 460–461.)
- x 1878 Brown, A.E. (TMM; in capt., Philadelphia; constipation, 296; fat deposits around heart, 297.)
- 1879 Murie, J. (TMM; wasting, peritonitis)
- x 1880 Murie, J. (TMM; wasting, peritonitis; 23–24.)
- x 1881 Crane, A. (?TI; in capt., Brighton; intestinal inflammation, m456; broken humerus & spinal injury, 459.)
- x 1894 Miller, W.D. (TS; tooth caries; 15–18.)
- x 1897 Beddard, F.E. (TI; pleurisy; 47.)
- x 1904 Freund, L. (DD; metacarpus; 375, pl. 15.)
- x 1905 Townsend, C.H. (TML; in capt., New York; pneumonia, parasites; 97.)
- x 1908b Gudematsch, J.F. (TML; in capt., New York; pneumonia, parasites, wounds, 227, 232; liver & kidney disease, 235.)
- x 1919 Anon. (TI; in capt., New York; supposedly with “two distinct stomachs”; 46.)
- x 1924–
- 1925 Vosseler, J. (TI; in capt., Hamburg; ?bloat, 131–132, 177; slow healing of wounds, 132.)
- x 1926 Derscheid, J.M. (TS; acute enteritis; 25.)
- x 1928b Petit, G. (TS, *Halitherium schinzii*; fusion of cervical vertebrae 2 & 3; 429–431.)
- 1930 Pales, L. (HG)
- x *1930 Vosseler, J. (TI; in capt., Hamburg; enteritis & fungal infection; 362–364.)
- x 1932 Korschelt, E. (DD, rib fractures, 450; TML, lesion on radius, 451.)
- x 1934 Hatt, R.T. (*Trichechus*; skeletal anomalies; 540.)
- 1936 Slijper, E.J. (HG; spondylitis deformans; 488.)
- x 1939 Coates, C.W. (TI; in capt., New York; “ulcers” in back muscles; 148.)
- x 1944 Pereira, M.N. (TI; Brazil; respiratory infection, skin disease; 65.)
- x 1948 Bessac & Villiers (TS; boils, treated with mercuriochrome & penicillin; 189.)
- x 1954 Anon. (TS; in capt., Antwerp; photos of healing wounds; 78.)
- x 1954 Cruz & Fernand (DD; parasites; 503–505.)
- x 1955 Severin, K. (TML; pneumonia; 148.)
- x 1956a Anon. (DD; wounds, pneumonia; 49.)
- x 1956 Harry, R.R. (DD; wounds, pneumonia; 27.)
- x 1957 Gohar, H.A.F. (DD; Red Sea; nematode infestation; 43–44, pl. 3.)
- x 1959 Jones, S. (DD; in capt., India; abrasions, 198; scabies from dirt, 199.)
- x 1961 Jonklaas, R. (DD; wounds; 3.)

- 1963 Bertram, G.C.L. (*Trichechus*; fungal infection)
- x 1963 Hofmeister, Max (TMM from Guyana; in capt., Ohio; rope lacerations, loose bowels, edema; 12.)
- x 1964a Bertram & Bertram (TMM; Guyana; fungal infection; 117-118.)
- x 1964 Humes, A.G. (TML; in capt., Florida; infection & parasites; 517-518, 528.)
- x 1964 Moore, J.C. (TML; Florida; healing of injury to tail; 7-8.)
- x 1965 Layne, J.N. (TML; Florida; propeller wounds, 166-167; red tide, 167.)
- x 1965 Lluch B., D. (TMM; Mexico; healing of wounds; death from harpoon wound in lung; 417.)
- x 1967 Jones, S. (DD; in capt., India; pneumonia, m216; blisters, infected stingray wound, inflamed testes, 219.)
- x 1967 Oke, V.R. (DD; in capt., Australia; copper sulfate poisoning; 221.)
- x 1968b Anon. (TI; in capt., San Francisco; wound infection; 2.)
- x *1969 Frye & Herald (TI, DD; wound infection & osteomyelitis; 1073-1076.)
- x 1969 Herald, E.S. (TI; wound infection & osteomyelitis; m29.)
- 1972 Bartmann, W. (TM; in capt., Duisburg, Germany; skin disease)
- x 1972 Blessing et al. (TI; in capt.; 168.)
- x 1972 Boorer, M.K. (TM; in capt.; clockwise swimming & possible asymmetrical muscle development; m165.)
- 1973 Lewis & Wilson
- x 1974 Bartmann, W. (TM; in capt., Germany; furuncular dermatitis; 13-16.)
- x 1974a Dekker, D. (TMM from Suriname; in capt., Amsterdam; bruises, saliva in bronchi; 68.)
- x 1974b Dekker, D. (TMM; Suriname; thinness; 3.)
- 1974 Mawdesley, T.L.E. (neoplasia)
- x 1974 Tabuchi et al. (TM; skin fungus; 127-134.)
- x 1975c Anon. (TML; Florida; ?bloat; 5.)
- x 1975 Domning & Frye (*Metaxytherium jordani*, *Hydrodamalis* n.sp.; fractures, osteomyelitis, ossifying spondylosis; ?osteitis deformans or ?osteitis fibrosa; 1-4, pls. 1-2.)
- x 1975 Forrester et al. (TML; Florida; intussusception, pesticides, parasites; 566-568.)
- x 1975 Pinto da Silveira, E.K. (TMM; in capt., Brazil; deaths attributed to chlorinated water; 224.)
- x 1976 Allen et al. (DD; in capt., Jakarta; malnutrition, gastrointestinal pathology, 36, 38, 40-41, 46; parasites, 41.)
- x 1976 Boever et al. (TI; in capt., St. Louis, Missouri; *Mycobacterium* infection; 927-929.)
- x 1978b Domning, D.P. (*Dusisiren jordani*, 68-69; *Hydrodamalis cuetae*, 90-91, 123-124; HG, 100.)
- 1978 Fowler, M.F.
- x 1979 Anderson, P.K. (DD; "sunburn" scars; 131, 133.)
- x 1979 Budiarto et al. (DD; Sulawesi; parasitic nasal lesions; 568.)
- x 1979 Hartman, D.S. (TML; Florida; ?bloat; 124-125.)
- 1979 Lowry, B.H. (TML)
- x 1979 Mok & Best (TI; in capt., Manaus; skin fungus; 79-82.)
- 1979 Neal et al. (TM)
- x 1979 Tas'an et al. (DD; in capt., Jakarta & Okinawa; intestinal impaction, hepatic dysfunction, gastric hemorrhage, pancreatitis, hydropericardium, laryngitis, colitis; 19, 27-29.)
- x 1980 Domning, D.P. (TI calves; in capt., Manaus; floating; 544.)
- x 1980 Irvine et al. (TML; Florida; skin, lung, & lymph node lesions; 3-5.)
- x 1980 Marsh, H. (DD; Australia; edematous fat & muscle; 188.)
- x 1981a Anderson, P.K. (DD; capture myopathy; 645-646.)
- 1981 Bergin, T.J.
- x 1981 Best, R.C. (cutaneous infections caused by malnutrition; 21.)
- x 1981a Beusse et al. (TML; Florida; septicemia, pneumonia; 98-101.)
- x 1981b Beusse et al. (TML; Florida; injuries, septicemia, hematology; 111-120.)
- x 1981 Campbell & Ladds (DD; Queensland; various diseases; 176-181.)
- x 1981 Cardeilhac et al. (TML; Florida; pneumonia, infections; 144.)
- x 1981 Elliott et al. (DD; in capt., Cairns, Australia; salmonellosis; 203-208.)
- x 1981 Jenkins, R.L. (TML; in capt., St. Augustine, Florida; development of dermatitis in fresh water; 129.)
- x 1981 Odell et al. (TML; effect of pneumonia on lung weights; 57.)
- x 1981 Zeiller, W. (TML; in capt., Miami, Florida; intestinal impaction from eating palm fronds; ectoparasitic lesions; 107-108.)
- x *1983 Bonde et al. (TM; salvage & necropsy manual; i-v, 1-175.)
- x 1983 Buergelt & Bonde (TML; toxoplasmic meningoencephalitis; 1294-1296.)
- x 1983 Gallivan et al. (TML; risk of epidemics at warm-water refugia; 261.)
- x 1983 Marsh & Anderson (DD; capture myopathy; 1-3.)
- x 1984 Buergelt et al. (TML; Florida; necropsy findings; various natural & accidental causes of death; 1331-1334.)
- x 1984 Buergelt, C.D. (TML; Florida; summary of ne-

- cropsy findings, 1980–83; encephalitis; 28–29.)
- x 1984 Marsh, Heinsohn & Channells (DD; ovarian cysts, metritis; 749, 762, 764.)
- 1985 Lauckner, G.
- x 1985 Morales et al. (TI; in capt.; systemic *Mycobacterium* infection, harpoon wound, skin lesions, etc.; 1230–1231.)
- 1985 Morales et al. (TI; *Mycobacterium marinum* infection)
- x 1985 O'Shea, Beck et al. (TML; Florida; cachexia, etc.; 4–6.)
- x 1985 O'Shea, Rathbun et al. (TML; no evidence of capture myopathy; 335–349.)
- x 1985 Qiu Y.-X. (TM; in capt., Beijing; infections; 36.)
- 1986 Medway & Geraci
- x 1986 Morales, P. (TI; in capt., San Francisco; systemic *Mycobacterium* infection, harpoon wound, skin lesions, etc.; 43–48.)
- x 1987b Anon. (TML; intestinal blockage; m225.)
- x 1987 Colares & Ferreira (TI; in capt., Manaus; floating, constipation, anemia, benign intestinal polyp; 39.)
- x 1987 Walsh et al. (TML; Florida; omphalitis & peritonitis; 702–704.)
- x 1988 Beck & Forrester (TML; Florida; pathologies associated with parasitic infestations; 630.)
- x 1988 Domning, D.P. (*Metaxytherium floridanum*; 415.)
- 1988b Pilleri, G. (*Metaxytherium* sp.)
- x 1990 Buergelt et al. (TML; thickened heart valves; 220–227.)
- x 1990 Colares et al. (TI; in capt., Manaus; treatments for infections, conjunctivitis, enteritis; 44–45.)
- xD 1990 Repenning & Packard (*Paleoparadoxia* [Stanford specimen]; fractures; 199–203.)
- x 1991 Domning & de Buffrénil (TI, TML, floating, 359–360; pachyosteosclerosis not pathological, 335–336, 363–364.)
- x *1991 O'Shea et al. (TML; Florida; mortality from red tide; 165–179.)
- 1992 Forrester, D.J.
- x 1992 Simmons, N. (TML; use of flotation gear in rehabilitation; pop. acc.; 9.)
- Peru
- x 1836 Smyth & Lowe (TI; 197, 229, 242–243.)
- x 1853 Herndon, W.L. (TI; econ. use; 158, 163–164, 200.)
- x 1875 Wilder, B.G. (TI; Marañon R., at Pebos; 105.)
- x 1914 Woodroffe, J.F. (TI; 243–244.)
- x 1967 MacLaren, J.P. (TI; ?from Iquitos; m388.)
- x 1968 Grimwood, I.R. (TI; status & exploitation; 418.)
- x 1969 Grimwood, I.R. (TI; distr.; 61.)
- x 1976 Marmol B., A.E. (TI; food plants; 31–32.)
- x 1976 Neville et al. (TI; Samiria R. area; 155.)
- x 1977 Van Bree & Duguay (TI; Ucayali R.; 292.)
- x 1985 Muizon & De Vries (*Metaxytherium calvertense*; Mioc.; m560.)
- x *1985 Muizon & Domning (*Metaxytherium calvertense*, Mioc., 189–206, 209–213; indeterminate sir., Plioc., 206–210.)
- x 1986 Frailey, C.D. (?*Ribodon*; ?Late Mioc., Acre R.; 34.)
- x 1986 Timm et al. (TI; hunting; 151–152, 154–155.)
- Philippine Islands
- 1706 Camelli, G.J.
- 1792 SEE Aragón, F., 1951.
- 1869 Semper, K.G.
- 1875 Leuckart, R. (DD; trematode *Monostomum dunionis*, n.sp.)
- 1885 Jordana y Morera, R.
- x 1906b Dexler & Freund (DD; parasites; 69.)
- 1912 Hollister, N.
- x 1915 Seale, A. (DD; Luzon; 215–217, 1 pl.)
- x 1923a Petit, G. (“dugong-bone society”; 83.)
- x 1939 Lyman, C.P. (DD; Tagbac Bay; vestigial incisor; 229.)
- x *1951 Aragon, F. (DD; early accounts; 265–268.)
- x 1977 Jueco, N.L. (DD; nematode *Paradujardinia*; 257–262.)
- x 1978 Kasuya & Nishiwaki (DD; Luzon; 301–302.)
- x 1979 Kamiya et al. (DD; Luzon; organ weights; 129–131.)
- x 1980 Kataoka & Asano (DD from Luzon; in capt., Japan; m269.)
- x 1981a Blair, D. (DD; parasitic flukes; 15.)
- x 1981 Kataoka & Asano (DD from Luzon; in capt., Japan; m199.)
- x 1981 Sprent, J.F.A. (DD; nematode *Paradujardinia*; 310.)
- Phoca manatus* (Linnaeus, 1758) Brisson, 1762 (= *Trichechus manatus*, in part; *T. senegalensis*, in part; *T. inunguis*, in part; *Dugong dugon*, in part; *Hydrodamalis gigas*, in part)
- *1762 Brisson, M.J. (n.comb.)
- x 1934 Hatt, R.T. (syn. of *Trichechus senegalensis* in part; 537.)
- Phylogeny and Affinities of the Sirenia and/or Desmostylia (SEE ALSO under species)
- x *1809a Cuvier, G. (history of opinions on sir. affinities; 274–278.)
- 1816 Blainville, H.M.D. de
- x 1825a Harlan, R. (sirs. considered cetaceans; 274–275.)
- 1836 Blainville, H.M.D. de
- x 1837 Robert, C. (*Trichechus* related to *Deinotherium*; m471.)
- x 1838 Owen, R. (sirs. considered not cetaceans but closer to pachyderms; 44–45.)

- x 1846 Gervais, F.L.P. (sirs. considered ungulates & related to proboscideans; 250–251.)
- x 1849 Agassiz, L. (sirs. considered pachyderms; 209.)
- x 1850 Kneeland, S., Jr. (sirs. considered pachyderms; 42–47.)
- x 1864 Dana, J.D. (sirs. considered a separate group; 160–161, 163, 168–169, 175, 183.)
- *1868a Brandt, J.F.
- x 1872a Murie, J. (sirs. intermediate between cetaceans & proboscideans; 189–191.)
- x *1873 Gill, T. (sirs. considered close to Cetacea; 262–273.)
- x 1875 Chapman, H.C. (sirs. considered a separate order; 452.)
- x 1875b Owen, R. (sirs. considered related to ungulates; 566–567.)
- x *1875 Wilder, B.G. (review; sirs. considered ungulates; 107–113.)
- 1882 Lepsius, G.R.
- x 1884 Flower, W.H. (sirs. considered an isolated order; 181.)
- x 1887 Flot, L. (supposed descent of Recent sirs. from Olig. forms; 136–138.)
- x 1889 Lefèvre, T. (supposed descent of all Recent sirs. from Belgian Olig. forms; 199–200.)
- x 1893 Lydekker, R. (sirs. derived from artiodactyls; 82.)
- 1895 Haeckel, E.
- x 1897 Broom, R. (organ of Jacobson & sir. classification; m252.)
- 1897 Sclater, P.L. (continental drift & manatees)
- xD 1902a Osborn, H.F. (*Desmostylus* considered either proboscidean or sir.; 713.)
- x 1902b Osborn, H.F. (*Eosiren*; 715.)
- xD 1902 Yoshiwara & Iwasaki (*Desmostylus* considered a proboscidean; 1–13.)
- x 1905 Mitchell, P.C. (intestinal tract; sirs. considered linked to hyraxes & proboscideans only by primitive characters; 533.)
- xD 1906 Merriam, J.C. (*Desmostylus* considered a sir.; 152.)
- x 1910 Woodward, A.S. (sir. evolution; 470.)
- xD 1911 Merriam, J.C. (*Desmostylus* considered a sir.; 412.)
- x 1914 Depéret, C. (*Felsinotherium*; 1860–1862.)
- x 1915 Broom, R. (organ of Jacobson & sir. classification; m162.)
- xD 1915 Hay, O.P. (*Desmostylus* placed in separate family of sirs.; 384–385.)
- x 1916a Matthew, W.D. (*Moeritherium* & proboscideans; sir. lineages; 26–27.)
- 1918 Aichel, O.
- 1918 Kaudern, W.
- xD 1923a Hay, O.P. (*Desmostylus* placed in separate suborder of sirs.; 107–109.)
- xD 1924 Andrews, C.W. (desmostylians considered sirs. & close to proboscideans; 304–309.)
- D 1924 Kishida, K.
- D 1924 Winge, H.
- D 1927 Honda, A. (*Desmostylus* considered a monotreme)
- xD 1929b Simpson, G.G. (*Desmostylus* not considered a monotreme; 12–13.)
- x *1932a Simpson, G.G. (phylogeny of sirs., 470–492; affinities of sirs., history of study, 492–496.)
- xD 1932c Simpson, G.G. (classification of sirs., 281–282; *Desmostylus*, m292.)
- D 1933 Kishida, K. (*Desmostylus* considered a multituberculate)
- x 1935b Wislocki, G.B. (placentation; sirs. considered related to proboscideans & hyraxes; 173–177.)
- 1936 Kellogg, R.
- xD 1939c Ijiri, S. (*Desmostylus* considered an ungulate *sensu lato*; 138.)
- x *1941 Kretzoi, M. (sir. classification & evolution; 149–156, pl. 6.)
- x 1941 Pycraft, W.P. (Sirenia; pop. acc.; 328.)
- x 1941a VanderHoof, V.L. (*Metaxytherium*, *Hydrodamalis*; 1985.)
- x 1943 Heuvelmans, B. (sirs. considered related to proboscideans & hippos; 12–13.)
- xD *1945 Simpson, G.G. (classification of sirs. & desmostylians; 135–136, 214, 240, 251–252.)
- x 1951 Reinhart, R.H. (Trichechidae; 209–211.)
- x 1953 Pascual, R. (*Ribodon*; 168–170, 177–180.)
- D 1954 Sera, G.L.
- x 1959a Engel, S. (dugong lung structure considered most primitive among mammals; 102–104, 106, 111–114.)
- D *1959 Reinhart, R.H. (Sirenia & Desmostylia)
- x 1965 Kilmer, F.H. (*Halianassa allisoni*; 69–70, 72.)
- x 1968 Lemire, M. (digestive organs; relationships to proboscideans, 496–497, 511, 513–514; relationships of manatees & dugongs, 515–516.)
- xD 1968 Romer, A.S. (ordinal status of Desmostylia; 201.)
- x *1970 Loughman et al. (chromosomes; sirs. considered distantly related to elephants; 152.)
- 1971 Tobien, H.
- x 1973 Pinto da Silveira, E.K. (subungulates derived from periptychid condylarths; 131–140.)
- D 1974 Gabuniya & Vekua
- 1974 Perry, J.S.
- *1975 McKenna, M.C. (cladistic classification of Mammalia)
- xD 1976 Minkoff, E.A. (desmostylians considered amblypods, not paenungulates; 151–154.)
- x 1977 Petter, A.J. (origin & radiation of ascaridoid nematodes in sirs.; 151, 153–155.)
- x 1977 Sarich, V.M. (manatee considered related to elephant & hyrax; 100.)
- *1977 Savage, R.J.G. (cladistic analysis of Sirenia)
- x *1978b Domning, D.P. (N. Pacific sirs.; 1–5, 11–12, 72–74, 100–101, 139–146.)
- x 1978c Domning, D.P. (sir. phylogeny; 573–581.)

- x 1978 Shoshani et al. (Paenungulata; cladistic analysis; 601.)
- x 1979 Tassy, P. (*Moeritherium* considered closer to Proboscidea than to Sirenia; 85–88.)
- x 1980 De Jong & Zweers (eye-lens proteins; TI considered close to Proboscidea & Hyracoidea; 897–902.)
- 1980 De Jong, W.W.
- x 1980 Sahni & Kumar (*Ishatherium* considered close to *Moeritherium*; 132–135.)
- x 1980 West, R.M. (*Anthracobune* comp. w/ primitive sirs.; 520.)
- 1981 De Jong et al.
- 1981 Hoffstetter, R.
- 1981 Lowenstein et al. (albumin systematics)
- 1981 Shoshani et al.
- x 1982 De Jong & Goodman (eye-lens proteins; TI considered close to Proboscidea, Hyracoidea, & Tubulidentata; 261–269, 273.)
- x 1982 Domning, Morgan & Ray (dental formulae; sirs. & other eutherians; 59–60.)
- x 1982 Novacek, M.J. (sirs. considered closest to proboscideans & hyraces; 13, 25–28, 35.)
- x 1984 Marsh, Heinsohn & Channells (reproductive biology of sirs. similar to proboscideans; 764.)
- x 1984 Marsh, Heinsohn & Glover (position of testicles, etc., of sirs. similar to proboscideans & hyraces; 738–740.)
- x 1984 Marsh, Heinsohn & Marsh (trichechid-dugongid separation ?30 million years old; 781.)
- x *1984 Rainey et al. (molecular systematics of sirs.; 586–588.)
- x 1985a Domning, D.P. (European *Halitherium* & *Metaxytherium*; biochronological utility; 183.)
- x 1985 Lowenstein, J.M. (immunological distances; sir. & paenungulate phylogenies; 543–544.)
- x 1985 Thewissen, J.G.M. (tubulidentates not considered close to sirs. or other ungulates; 278–280.)
- x 1986 Domning & Hayek (Trichechidae; cladistic analysis; 132–136.)
- xD *1986 Domning et al. (*Behemotops* & other Tethytheria; 31–47.)
- 1986 Fischer, M.S.
- 1986 Kleinschmidt et al. (hemoglobin sequences)
- x 1986 Miyamoto & Goodman (protein sequences; sirs. considered closest to Hyracoidea, Proboscidea, & Tubulidentata; 230–240.)
- D 1986a Novacek & Wyss
- 1986b Novacek & Wyss
- 1986 Novacek, M.J.
- x 1986 Shoshani et al. (immunology; TM considered close to proboscideans; 431–436.)
- xD 1986 Shoshani, J. (cladistic analysis; Sirenia & Desmostylia considered sister groups; 222–242.)
- xD 1987 McKenna, M.C. (tethytheres considered a natural group, possibly a Cretaceous branch of Eutheria; 61–63, 70–71, 79–82.)
- D 1987 Novacek & Wyss
- x 1987 Wyss et al. (sirs. considered close to Hyracoidea & Proboscidea; 104–107, 113.)
- x 1988 Domning, D.P. (*Metaxytherium*; 417–418.)
- xD 1988 Janis, C.M. (tethytherian phylogeny; 292–295.)
- x 1988 Kleinschmidt et al. (hemoglobin; Sirenia, Proboscidea, & Hyracoidea considered to form a monophyletic clade; 509, 511.)
- 1988 Novacek et al.
- 1988 Tassy & Shoshani
- x 1989c Domning, D.P. (Rytiodontinae; cladistic analysis; 424–426.)
- x 1989d Domning, D.P. (Rytiodontinae; 435.)
- 1989 Novacek, M.J.
- x 1990 Court, N. (periotic characters in tethytheres; 170–182.)
- 1990 Czelusniak et al.
- xD 1990 Gingerich et al. (astragalar characters in Proboscidea & Desmostylia; 76.)
- 1990 Novacek, M.J.
- xD *1991 Clark, J.M. (*Paleoparadoxia weltoni* & other desmostylians; cladistic analysis; 490–494, 502–505.)
- x 1991 Court & Jaeger (periotic characters in Proboscidea & Sirenia; 559–565.)
- 1991 Fischer, M.S.
- xD 1991 Kumar, K. (anthracobunids comp. w/ sirs. & desmostylians; 234–238.)
- 1991 Ohnishi, K. (sirs. related to proboscideans, hyracoids, & tubulidentates)
- x 1992 McKenna, M.C. (eye-lens proteins; sirs. closest to hyracoids, tubulidentates, & proboscideans; 350, 354–355, 357.)
- xD 1992 Novacek, M.J. (Tethytheria a well-supported group; 59–69.)
- xD 1992 Thewissen & Domning (Sirenia & Desmostylia included in Pantomesaxonia = sister group of phenacodontids; 494–504.)
- 1993 Barriel et al.
- x 1993 Bradley et al. (TML; cytochrome b DNA sequence; similarities to elephant; 197–202.)
- 1993 Fischer & Tassy
- 1993 Shoshani, J. (myology)
- *1994b Domning, D.P. (cladistic analysis of Sirenia)
- Physiology: SEE Biochemistry; Endocrinology; Respiration and Diving; Thermoregulation; and under organ system
- Platystomus* Fischer von Waldheim, 1803 (*non Platystoma* Meigen, 1803 [Insecta]) (= *Dugong*)
- *1803 Fischer v. Waldheim, G. (n.gen.)
- x 1872a Gill, T. (syn. of *Halicore*; m92.)

- x 1978c Domning, D.P. (syn. of *Dugong*; m578.)
Platystomus dugong (Gmelin, 1788) Fischer von Waldheim, 1803 (= *Dugong dugon*)
 *1803 Fischer v. Waldheim, G. (n.comb.)
- Pleistocene
- x 1833 Shepard, C.U. (*Trichechus*; ?Pleist., Florida; 164.)
 1834 Keferstein, C. (*Trichechus*; Florida)
 x 1846 Allen, J.H. (*Manatus*; ?Pleist., Florida; 41.)
 x 1868 Cope, E.D. (*Manatus*; "postpliocene," Maryland; m138.)
 x 1884 De Vis, C.W. (*Chronozoon Australe*, n.gen.n.sp.; ?Plio-Pleist., Queensland; 395.)
 x 1885a Woodward, H. (HG; Bering Is.; 457-458.)
 x 1897 Etheridge et al. (DD; ?Pleist., Sydney, Australia; 170-174, 178-180, pls. 8-11.)
 x 1916 Sellards, E.H. (TM; Florida; 104.)
 x 1919 Hay, O.P. ("*Trichechus antiquus?*"; Florida; 109.)
 xD 1927 Pfizenmayer, E.W. (*Desmostylus Wollosowitschi*, n.sp.; ?Pleist., New Siberian Islands; 492-496.)
 x 1929a Simpson, G.G. (*Trichechus*; Florida; 564.)
 x 1932a Simpson, G.G. (*Trichechus*; Florida; 419-424, 470.)
 x 1939 Gut, H.J. (*Trichechus*; Florida; 50-53.)
 x 1956 Paula Couto, C. de (*Trichechus* sp.; ?Pleist., Acre, Brazil; 5, 79, 95, 107.)
 x 1960 Funderburg, J.B. (*Trichechus*; North Carolina; 521.)
 x 1965 Long, A. (HG; Monterey Bay, California; carbon-14 date; 254.)
 x 1967 Jones, R.E. (HG; Monterey Bay, California; carbon-14 date; 143.)
 x 1967a Paula Couto, C. de (sirs.; ?Pleist., Acre, Brazil; m22, m26.)
 x 1971 Gard & Szabo (HG; Amchitka Is., Alaska; 577.)
 x 1972 Gard et al. (HG; Amchitka Is., Alaska; 867-868.)
 x 1974 Addicott & Greene (HG; Monterey Bay, California; zoogeographic significance; 251-252.)
 x 1974 Webb, S.D. (TM; Florida; 18.)
 x *1975 Szabo & Gard (HG; Amchitka Is., Alaska; uranium-series dates; 457-459.)
 x 1976 Webb, S.D. (*Trichechus*; Florida; 221, 223, 226.)
 x *1977 Whitmore & Gard (HG; Amchitka Is., Alaska; 1-8, 18.)
 x 1978b Domning, D.P. (HG; N. Pacific; 102-106, 161-162.)
 x 1980 Kurtén & Anderson (HG, TM; North America; 340-342.)
 1980 Roth & Laerm (South Carolina)
- x 1981 Simpson & Paula Couto (*Trichechus*; Acre, Brazil; 48-49, 69.)
 x 1982b Domning, D.P. (*Trichechus* sp.; Brazil, 603-604; Florida, 604-605; Louisiana, 605.)
 x 1982 Domning, Morgan & Ray (TM; Waccasassa R., Florida; m18.)
 x 1982 Molnar, R.E. (*Halicore brevirostre* [sic]; ?Pleist., Papua New Guinea; 676, 679.)
 x 1983 Kimura et al. (*Hydrodamalis* sp.; Hokkaido, Japan; 162-177, pls. 1-4.)
 x 1983 Wilkins, K.T. (TM; Florida; 70, 76-77, 79.)
 1984 Anderson, E.
 x 1984b Domning, D.P. (*Trichechus*; Maryland; 5.)
 x 1986 Domning & Hayek (*Trichechus*; South Carolina; m136.)
 x 1988 Boekschoten & Best (*Trichechus*; dispersal to Africa; 110-111.)
 x 1989 Gallagher et al. (*Trichechus* sp.; New Jersey; 107-108.)
 x 1989 Hulbert & Morgan (TM; Early Pleist., Florida; 11.)
 x 1992 Whybrow, P. (indeterminate sir.; ?Pleist., Abu Dhabi; 20.)
- Pliocene
- x 1838 Serres, M. de (*Manatus, Halicore medius*; Montpellier, France; 285-286.)
 x 1847b Gervais, F.L.P. (*Halitherium serresii*; France; 209-211, 221.)
 x 1877 Lawley, R. (*Felsinotherium Forestii*; Italy; 341-342.)
 x 1883 Ameghino, F. (*Ribodon limbato*, n.gen.n.sp.; Argentina; 112-113.)
 x 1884 De Vis, C.W. (*Chronozoon Australe*, n.gen.n.sp.; ?Plio-Pleist., Queensland; 395.)
 x 1886 Portis, E. (*Felsinotherium subappeninum, F. Gastaldii*; Italy; 356-360.)
 xD 1888 Marsh, O.C. (*Desmostylus hesperus*, n.gen.n.sp.; [actually Mioc.] California; 94-96.)
 x 1912 Issel, A. (*Felsinotherium subapenninum*; Italy; 119.)
 x 1914 Depéret, C. (*Felsinotherium Serresi*; Montpellier, France; 1858-1862.)
 x 1922a Hay, O.P. (*Metaxytherium floridanum*, n.sp.; ?Plioc. [actually Mioc.], Florida; 3.)
 x 1923a Allen, G.M. (*Metaxytherium floridanum*; ?Plioc. [actually Mioc.], Florida; 231-238.)
 x 1932a Simpson, G.G. (*Felsinotherium ossivallense*; [actually Mioc.] Florida; 445-446, 469, 499.)
 x 1953 Pascual, R. (*Ribodon*; Mioc.-Plioc., Argentina; 163-167.)
 x 1954 Ennouchi, E. (*Felsinotherium* cf. *serresi*; Morocco; 77.)
 x 1970 Shikama & Domning (*Hydrodamalis* sp.; Late Plioc., Honshu, Japan; 390-396.)

- x 1971a Domning, D.P. (sirs. & stratigraphic correlation; western North America; 110-111.)
- x 1971b Domning, D.P. (hydrodamaline evolution; 217-220.)
- x 1974 Fondi & Pacini (*Metaxytherium forestii*; Italy; 37, 47.)
- 1974 James & Slaughter (indeterminate sir.; Egypt)
- x *1978b Domning, D.P. (*Dusisiren* sp., *Hydrodamalis cuestae*, n.gen.n.sp.; N. Pacific; 102-107, 157-161.)
- x 1979 Boaz et al. (*Metaxytherium*; Libya; 137-139.)
- x 1982 Azzaroli et al. (*Felsinotherium gervaisi*; Italy; 56, 58.)
- x 1982 Boaz & Cramer (*Metaxytherium*; Sahabi, Libya; pop. acc.; 37, 40-41.)
- x 1982b Domning, D.P. (*Ribodon*, North Carolina; *Trichechus*, Florida; 604.)
- x 1982c Domning, D.P. (*Metaxytherium serresii*; Sahabi, Libya; 29-32.)
- x 1984 Domning & Deméré (*Hydrodamalis cuestae*; California; 169-188.)
- x 1985 Muizon & Domning (indeterminate sir.; Peru; 206-207, 210.)
- x 1987 Canocchi, D. (*Metaxytherium gervaisi*; Early Plioc., Italy; 497-513.)
- x *1987 Domning & Thomas (*Metaxytherium forestii*, Italy, 208, 220-221; *M. serresii*, Libya & France, 209-230.)
- x 1989d Domning, D.P. (*Xenosiren yucateca*, n.gen.n.sp.; ?Plioc., Mexico; 430.)
- x 1990b Domning, D.P. (*Corystosiren varguezi*, n.gen.n.sp.; Mexico, Florida; 362.)
- x 1992 Pledge, N. (?*Dugong*; Early Plioc., South Australia; 6.)
- x
Pollution, Effects of (SEE ALSO: Temperature, Effects of)
- x 1972a Hartman, D.S. (TML; Florida; industrial & pesticide pollution, dredging; 21.)
- x 1974a Hartman, D.S. (TML; Florida; 218-220.)
- x 1974 Mondolfi, E. (TMM; Venezuela; possible harmful effects; m17.)
- x 1975 Forrester et al. (TML; Florida; pesticide residues; 567-568.)
- x 1976 Gallagher, M.D. (DD; Bahrain; possible deaths from oil pollution, seismic surveys, etc.; 211.)
- x 1976 Heinsohn & Wake (DD; Australia; sandmining; 15-18.)
- x 1977 Heinsohn et al. (Australia; seagrass beds; 244-245.)
- x 1977 O'Keefe, M.T. (TML; Crystal R., Florida; pop. acc.; pollution considered beneficial; 67.)
- x 1979 Hartman, D.S. (TML; Florida; arsenic in tissues, 124; ?bloat, 124-125.)
- x 1979 Miyazaki et al. (DD; Sulawesi; metals & organo-chlorines in tissues; 125-128.)
- x *1980 Denton et al. (DD; Queensland; heavy metal content of tissues; 201-219.)
- x 1981 Denton & Breck (DD; Queensland; mercury in tissues; 119-120.)
- x 1981a Denton, G.R.W. (DD; Queensland; diet & heavy metal status; 169-174.)
- x 1981b Denton, G.R.W. (DD; tissue sampling procedures; 239.)
- x 1983a Anon. (DD; Persian Gulf; oil spill; 180.)
- x 1983 Begley et al. (DD; Persian Gulf; Nowruz oil spill; 79.)
- x 1983 Buergelt & Bonde (TML; Florida; toxoplasmic meningoencephalitis, possibly from sewer water; 1295.)
- x 1983b Gluckman, D. (Florida; laws relevant to water quality; 253-273.)
- x 1983 O'Shea, T.J. (potential hazards of 3 aquatic herbicides; 159-173.)
- x 1983 Tiedemann, J.A. (TML; Turkey Creek, Florida; pesticide 2,4-D; 7.)
- x *1984 O'Shea et al. (TML; Florida; contaminant concentrations; 741-748.)
- x 1986c Anon. (DD; Persian Gulf; not exterminated by oil spill; 25.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; water pollution; 970, 973.)
- 1987 O'Shea et al. (TML; Florida)
- x 1988 Carowan, G. (TML; Florida; ?chemical burns; m5.)
- 1989 Lee & Socci (TML; North Carolina; potential oil spills)
- x 1989a Marsh, H. (DD; Australia; heavy metals in tissues; 82.)
- x *1989 Preen et al. (DD; Arabian region; recommendations regarding oil pollution; 1-13, 17-19, 25-27.)
- x *1989a Preen, A. (DD; Arabian region; oil, 6, 51, 53, 69, 83, 90, 119, 122-125; other pollutants, 125-126.)
- *1990 St. Aubin & Lounsbury (TM; risks from oil)
- x 1991 Beck & Barros (TML; Florida; impact of debris; 508-510.)
- 1991a Kamiya, T. (DD; effects of Persian Gulf war)
- x 1991 O'Shea et al. (TML; southwestern Florida; heavy metals in tissues; 171-172.)
- Pontotherium* Kaup, 1840 (= *Metaxytherium*)
- x *1840 Kaup, J.J. (proposed as replacement name for *Cheirotherium* Bruno; 676.)
- x 1872a Gill, T. (in classification; 92.)
- x 1932a Simpson, G.G. (m481.)
- x 1978c Domning, D.P. (syn. of *Metaxytherium*; m577.)
- x 1987 Domning & Thomas (syn. of *Metaxytherium*; 208-209.)

- Population Biology (SEE ALSO: Aerial Surveys of Distribution; Birth and Breeding)
- x 1974b Dekker, D. (TMM; Suriname; 14:1 sex ratio among 15 animals caught; 3.)
- x 1978 Heinsohn et al. (DD; Australia; proportion of calves in local population; 91.)
- x 1978 Irvine & Campbell (TML; Florida; proportion of young calves in population; 615-616.)
- x 1979 Hartman, D.S. (TML; Crystal R., Florida; population size, composition, & reproduction, 15-17, 26; population dynamics, 120-125.)
- x 1980 Lal Mohan, R.S. (DD; India; sex ratio; 392-397.)
- x 1981 Brownell, Ralls & Reeves (TML; Florida; review & research needs; 3-5.)
- x 1981b Reynolds, J.E., III (TML; Blue Lagoon, Miami, Florida; 435-436, 441-442.)
- x 1982 Eberhardt, L.L. (TML; Florida; censusing methods; 1-18.)
- x 1983a Kinnaird, M.F. (TML; northeastern Florida; proportion of calves in population & population size; 9, 11, 25, 27, 44-46, 49-50.)
- x 1983c Kinnaird, M.F. (TML; Florida; effect of boat kills; 33-35.)
- x 1983 Packard & Nichols (TML; Florida; sample sizes required for mark-recovery studies; 1-14.)
- *1984 Marsh et al. (DD; Australia)
- x *1984 Packard, Frohlich et al. (TML; Florida; factors influencing indices of abundance; 1-63.)
- x *1985b Packard, J.M. (TML; population model; 1-19.)
- x *1986a Marsh, H. (DD; Torres Strait; population model; 64-73.)
- x *1986 Packard et al. (TML; Florida; use of replicate counts to improve indices of trends in abundance; 265-275.)
- x *1988a O'Shea, T.J. (review of population estimates & methods; 184-186, 188-191.)
- x 1989 Bayliss & Freeland (DD; Gulf of Carpentaria, Australia; hunting & sustainable yield; 146-147.)
- x 1989a Preen, A. (DD; Arabian region; estimated sustainable mortality; 129-130, 134.)
- x 1991 Lefebvre & Kochman (TML; Florida; evaluation of replicate count methodology; 298-309.)
- *1992 O'Shea et al. (TML; Florida; interim report of workshop)
- x 1993 Savinetsky, A.B. (HG; Bering Is.; 403-405.)
- Portugal
- x 1944 Zbyszewski, G. (*Metaxytherium petersi*; Mioc., Lisbon; 69-70.)
- 1949 Zbyszewski, G. (Mioc., Lisbon)
- 1954 Zbyszewski, G. (Mioc., Lisbon)
- x 1959 Telles-Antunes, M.C.F. (*Halitherium* sp.; Mioc., Lisbon; 129-137.)
- 1979 Telles-Antunes, M.C.F. (*Metaxytherium medium*
- Potamosiren* Reinhart, 1951
- x *1951 Reinhart, R.H. (n.gen.; Mioc., Colombia; 203-211.)
- x 1974 Savage, J.M. (significance for manatee zoogeography; 20, 26.)
- 1977 Ferrusquia-Villafranca, I.
- x 1978c Domning, D.P. (in phylogeny; 579.)
- x *1982b Domning, D.P. (*Potamosiren* sp.; Mioc., Colombia; 601-602, 606.)
- x 1982 Kleinschmidt, A. (m378-379.)
- x 1986 Domning & Hayek (in cladistic analysis of trichechids; 132-133.)
- Potamosiren magdalenensis* Reinhart, 1951
- x *1951 Reinhart, R.H. (n.gen.n.sp.; Mioc., Colombia; 203-207.)
- x 1953 Pascual, R. (comp. w/ *Ribodon*; 178-179.)
- x 1953 Stirton, R.A. (in faunal list; 614.)
- x 1966 Kellogg, R. (m66, m92.)
- x 1967 Paula Couto, C. de (comp. w/ *Sirenotherium*; 345-346, 350, 355-356.)
- x *1982b Domning, D.P. (phyletic position; 600-603, 606-607, 609, 611-613, 616.)
- x 1986 Frailey, C.D. (comp. w/ ?*Ribodon*; 34.)
- Predators: SEE Natural Enemies
- Prohalicore* Flot, 1887
- x *1887 Flot, L. (n.gen.; Mioc., France; 11, 134-135, 137-138, pl. 1.)
- x 1891 Flower & Lydekker (m223.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 473, 481, 499.)
- x 1941 Kretzoi, M. (in classification; 154-155.)
- Prohalicore dubaleni* Flot, 1887
- x *1887 Flot, L. (n.gen.n.sp.; Mioc., France; 11, 134-135, pl. 1.)
- x 1943 Kaltenmark, J. (m23.)
- Prorastoma* Lydekker, 1892 (= *Prorastomus*)
- x *1892 Lydekker, R. (unjustified emendation of *Prorastomus* Owen; 83.)
- x 1942 Heuvelmans, B. (dentition; 1-5.)
- x 1943 Heuvelmans, B. (dentition; 6, 8-11.)
- Prorastoma veronense* (de Zigno, 1875) Lydekker, 1892 (= *Prototherium veronense*)
- x *1892 Lydekker, R. (n.comb.; 77-83.)
- 1898 Trouessart, E.L. ("*Prorastomus veronensis*")
- x 1906 Abel, O. (dentition; 52.)
- x 1907b Arldt, T. ("*P. veronensis*"; biogeographic significance; 674.)
- x 1923a Allen, G.M. ("*P. veronensis*"; m232.)
- x *1942 Heuvelmans, B. (dentition; 1-5.)

- Prorastomidae Cope, 1889 (family)
- *1889b Cope, E.D. (n.fam.)
- x 1889b Dollo, L. (m421.)
- x 1891 Flower & Lydekker ("Prorastomatidae," unjustified emendation; m224.)
- x 1904 Case, E.C. (teeth; m57.)
- x 1932c Simpson, G.G. (in classification; 281.)
- x 1941 Kretzoi, M. (in classification; 154, pl. 6.)
- x 1945 Simpson, G.G. (in classification; 135.)
- Prorastominae (Cope, 1889) Reinhart, 1959 (subfamily)
- *1959 Reinhart, R.H. (new subfamily; 5-6, 62-63.)
- Prorastomus* Owen, 1855
- x *1855 Owen, R. (n.gen.; Eoc., Jamaica; 541-543, pl. 15.)
- 1869 Leidy, J.
- x 1872a Gill, T. (in classification; 92.)
- x 1883a Cope, E.D. (comp. w/ *Dioplotherium*; 52.)
- x 1885a Woodward, H. (teeth, 465; m472.)
- x 1886b Hartlaub, C. (m376.)
- x 1889b Dollo, L. (comp. w/ *Miosiren*; 416, 418-419, 421.)
- x 1902 Yoshiwara & Iwasaki (comp. w/ ungulates; m12.)
- x 1904 Case, E.C. (m57.)
- x D 1915 Hay, O.P. (comp. w/ *Desmostylus*; 384-385, 391.)
- x 1924 Andrews, C.W. (dentition; m306.)
- x 1928 Prater, S.H. ("*Porastomus*"; m98.)
- x 1930a Simpson, G.G. (pop. acc.; 44.)
- x 1941a Heuvelmans, B. (dentition; m5, m8.)
- x 1941 Kretzoi, M. (in classification; 153-154, 156.)
- x 1942b Kaltenmark, J. (m104.)
- x 1945 Simpson, G.G. (in classification; 135, 251.)
- x 1951 Reinhart, R.H. (m208-209, 211.)
- x 1966 Kellogg, R. (m65.)
- x 1967 Browder, J. (m5.)
- x 1968 Lemire, M. (m515.)
- x 1969 Voorhies, M.R. (comp. w/ tooth from Georgia; m94.)
- x 1974 Domning, D.P. (m7.)
- x 1978b Domning, D.P. (dental formula; m4, 73.)
- x 1978c Domning, D.P. (phyletic position; 574-575, 579.)
- x 1979 Tassy, P. (comp. w/ *Moeritherium*; 85-87.)
- x 1980 West, R.M. (comp. w/ *Anthracobune*; 520, 531.)
- x 1981d Domning, D.P. (probable seagrass diet; 418.)
- x 1982 Kleinschmidt, A. (m378-380.)
- x 1982 Sereno, P.C. (comp. w/ *Florentinoameghinia*; 7-9.)
- x 1985 Thewissen, J.G.M. (alisphenoid canal; m273.)
- x 1986 Domning & Hayek (in cladistic analysis; 133.)
- x 1986 Domning et al. (cladistic relationships; 36-37.)
- x 1990 Court, N. (ear comp. w/ *Arsinoitherium*, etc.; 175-179.)
- x 1990 O'Shea & Reep (body size; 539.)
- x 1991 Court & Jaeger (inner ear; 562, 564-565.)
- x 1991 Domning & de Buffrénil (pachyosteosclerosis; m360.)
- Prorastomus sirenoides* Owen, 1855
- x *1855 Owen, R. (n.gen.n.sp.; Eoc., Jamaica; 541-543, pl. 15.)
- x 1869 Leidy, J. (in synopsis; 414.)
- x *1875b Owen, R. (redescription; 559-567, pls. 28-29.)
- x 1885a Woodward, H. (m470.)
- x 1887 Flot, L. (review; 136.)
- x 1891 Flower & Lydekker (anatomy; 224.)
- x 1892 Lydekker, R. (comp. w/ *P. veronense*; 82-83.)
- x 1907b Arldt, T. (biogeographic significance; 674.)
- x 1916a Matthew, W.D. (comp. w/ *Halitherium antillense*; 23-24, 26, 28.)
- x 1923a Allen, G.M. (m232.)
- x 1931 Sickenberg, O. (pachyostosis & osteosclerosis; 409, 411.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 422-423, 460, 470-472, 474, 491-492, 495-496, 499.)
- x 1941 Kretzoi, M. (comp. w/ *Sirenavus*, 146-149; in classification, 151, 154.)
- 1942 Kellogg, R.
- x 1943 Kellogg, R. (m299.)
- x 1953 Kretzoi, M. (m274.)
- x 1966 Kellogg, R. (review & measurements; 65.)
- x 1967 Paula Couto, C. de (m346.)
- x 1975 Savage, R.J.G. (restudy of holotype; 824.)
- x 1977 Kordos, L. (comp. w/ *Paralitherium*; 366.)
- 1977 Savage, R.J.G. (restudy of holotype)
- x 1980 Kordos, L. (comp. w/ Hungarian *Eotheroides*; 388-389, 396-397.)
- x 1982b Domning, D.P. (not closely related to trichechids; 599.)
- x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 1-2, 4, 7, 35, 55, 59-63.)
- x *1990 Donovan et al. (Middle Eoc., Jamaica; new specimen; 660-662.)
- x 1992 Thewissen & Domning (character states; 495, 502.)
- x 1993 Domning & Clark (Jamaica; 414.)
- Prorastomus veronensis*: SEE *Prorastoma veronense*
- Protosiren* Abel, 1907
- x 1906 Abel, O. (nomen nudum; tooth replacement; 51, 59.)
- *1907a Abel, O. (n.gen.)
- x 1916a Matthew, W.D. (m27.)
- 1939 Edinger, T.

- x 1941 Kretzoi, M. (in classification; 151, 154, pl. 6.)
- x 1943 Kaltenmark, J. (phylogeny; 16–17, 21.)
- x 1945 Simpson, G.G. (in classification; 135.)
- x 1951 Reinhart, R.H. (m209, 211.)
- x 1966 Kellogg, R. (m65.)
- x 1967 Browder, J. (m5.)
- x 1977 Kordos, L. (comp. w/ *Paralitherium*; 366.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 4, 16, 29.)
- x 1979 Tassy, P. (comp. w/ *Moeritherium*; 87.)
- 1979 Webb, S.D. (Florida)
- x 1980 Sahni & Kumar (comp. w/ *Ishatherium*; 134.)
- x 1982b Domning, D.P. (?ancestral to trichechids; 599–600, 605, 615–616.)
- x *1982 Domning, Morgan & Ray (*Protosiren* sp.; Middle Eoc., Florida & North Carolina, 4, 18–63; Late Eoc., Egypt, 55–56.)
- x 1982 Kleinschmidt, A. (m378–380.)
- x 1982 Sereno, P.C. (comp. w/ *Florentinoameghinia*; 7–9.)
- x 1983 Bizzotto, B. (comp. w/ *Prototherium*; 100, 110.)
- x 1983 Morgan & Pratt (Eoc., Florida; 24.)
- x 1983 Sahni et al. (pelvis comp. w/ *Ishatherium*; m81.)
- x 1985 Thewissen, J.G.M. (skull foramina; 272–273.)
- x 1986 Domning et al. (cladistic relationships; 36–37, 39, 45–46.)
- x 1987b Domning, D.P. (“*Hippopotamus dubius*” referable to *Protosiren* & not *Halitherium*; 124.)
- 1987 Pilleri, G.
- x 1990 Ivany et al. (Middle Eoc., Florida; paleoecology; 250.)
- x 1990 O’Shea & Reep (brain; 536.)
- x 1992 Hulbert, R.C., Jr. (Florida; in checklist; 28.)
- Protosiren dolloi* Abel, 1904 (= *Prototherium veronense*; nomen nudum)
- *1904a Abel, O. (n.sp.; nomen nudum)
- x *1906 Abel, O. (referred to *Mesosiren*; 52.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 471, 473, 481, 492, 495, 499.)
- x 1976 Kordos, L. (m282.)
- x 1978c Domning, D.P. (syn. of *Prototherium veronense*; m575.)
- Protosiren dubia* (Cuvier, 1824) Sickenberg, 1934 (= *Protosiren minima*)
- *1934b Sickenberg, O.
- x 1952 Hooijer, D.A. (syn. of *P.(?) minima*; 113.)
- x 1966 Kellogg, R. (m68–70.)
- x 1978c Domning, D.P. (m575.)
- x 1978 Kordos, L. (m282.)
- x 1980 Kordos, L. (nature of type material; 387.)
- x 1982 Domning, Morgan & Ray (syn. of ?*P. minima*; m57.)
- Protosiren fraasi* Abel, 1907
- x 1906 Abel, O. (nomen nudum; dentiton; 51.)
- 1908 Priem, F. (Eoc., Egypt)
- x 1924 Hay, O.P. (tooth formula; m3.)
- x 1931 Sickenberg, O. (pachyostosis & osteosclerosis, 409, 411, 414, 416; tooth replacement, 429; respiratory adaptations, 438.)
- *1934b Sickenberg, O.
- x 1938 Zdansky, O. (comp. w/*Eotherium majus*; 429, 431–433.)
- x 1942b Kaltenmark, J. (comp. w/ *Metaxytherium* sp.; 108.)
- x 1943 Kaltenmark, J. (phylogeny; 16, 18, 21, 23–24.)
- x 1953 Kretzoi, M. (m274.)
- x 1973 Fuchs, H. (“*Prototherium fraasi*”; comp. w/ Romanian sir.; 75.)
- x 1978c Domning, D.P. (phyletic position & occurrence in Africa; 574–575, 579.)
- x 1978 Kordos, L. (*P. cf. fraasi*; Eoc., Hungary; 288–289, pl. 1.)
- x 1980 Kordos, L. (m385; nature of type material, 387.)
- x 1980 West, R.M. (m510.)
- x *1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 18, 30, 36–37, 39, 42–44, 55–57, 59.)
- x 1985a Kordos, L. (Hungary; m314.)
- x 1986 Domning & Hayek (in cladistic analysis; 132–134.)
- x 1991 Domning & de Buffrénil (pachyosteosclerosis; 360–361.)
- x 1992 Gingerich, P.D. (Egypt; stratigraphic horizon; 11, 71, 75–77.)
- x 1992 Thewissen & Domning (character states; 495, 502–503.)
- x 1993 Gingerich et al. (India; specimen of Sahni & Mishra, 1975, referred to Cetacea; 410–411.)
- Protosiren minima* (Desmarest, 1822) Hooijer, 1952
- x *1952 Hooijer, D.A. (n.comb.; senior synonym of *P.(?) dubia*; 113.)
- x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 37, 57.)
- Protosiren veronense* [sic] (de Zigno, 1875) Kaltenmark, 1942 (= *Prototherium veronense*)
- x 1942b Kaltenmark, J. (n.comb.; ?lapsus for *Prototherium veronense*; comp. w/ *Metaxytherium* sp.; 108.)
- Protosirenidae Sickenberg, 1934 (family)
- *1934b Sickenberg, O. (n.fam.)
- x 1941 Kretzoi, M. (in classification; 154, pl. 6.)

- x 1945 Simpson, G.G. (in classification; 135, 251.)
 Protosireninae (Sickenberg, 1934) Reinhart, 1959 (subfamily)
 *1959 Reinhart, R.H. (new subfamily; 6, 62–63.)
 Prototheriidae Kretzoi, 1941 (family; = Halitheriinae)
 x *1941 Kretzoi, M. (n.fam.; 155, pl. 6.)
Prototherium de Zigno, 1887
 *1887 Zigno, A. de (n.gen.)
 x 1941 Kretzoi, M. (in classification; 153, 155, pl. 6.)
 x 1943 Kaltenmark, J. (phylogeny; 21.)
 x 1945 Simpson, G.G. (in classification; 135, 251.)
 x 1980 Sahni & Kumar (comp. w/ *Ishatherium*; 133–134.)
 x 1982 Kleinschmidt, A. (m378–380.)
 x 1982 Sereno, P.C. (comp. w/ *Florentinoameghinia*; 7–8.)
 x 1991 Domning & de Buffrénil (pachyosteosclerosis; m361.)
Prototherium fraasi (Abel, 1907) Fuchs, 1973 (= *Protosiren fraasi*)
 x *1973 Fuchs, H. (n.comb.; lapsus for *Protosiren fraasi*; comp. w/Romanian sir.; 75.)
Prototherium intermedium Bizzotto, 1983
 x *1983 Bizzotto, B. (n.sp.; Late Eoc., Italy; 95–116, 2 pls.)
 x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 272.)
 *1989 Pilleri et al.
Prototherium montserratense Pilleri in Pilleri, Biosca, & Via, 1989 (= *Prototherium intermedium*)
 *1989 Pilleri et al. (n.sp.; Eoc., Spain)
Prototherium solei Pilleri in Pilleri, Biosca, & Via, 1989 (= *Prototherium intermedium*)
 *1989 Pilleri et al. (n.sp.; Eoc., Spain)
Prototherium veronense (de Zigno, 1875) de Zigno, 1887
 *1887 Zigno, A. de (n.comb.)
 x 1902 Andrews, C.W. (comp. w/ *Eosiren libyca*; 293–294.)
 x 1931 Sickenberg, O. (pachyostosis & osteosclerosis, 409, 411, 414; tooth replacement, 429.)
 x 1932a Simpson, G.G. (comp. w/ other sirs.; 423, 444, 471–474, 476–478, 480.)
 *1934b Sickenberg, O.
 x 1942b Kaltenmark, J. (comp. w/*Metaxytherium* sp.; 108.)
 x 1943 Kaltenmark, J. (phylogeny; 17–19, 21, 23.)
 x 1952a Koenigswald, G.H.R.v. (comp. w/ *Indosiren*; 611.)
 x 1953 Kretzoi, M. (m274.)
 x 1966 Piccoli, G. ("*P. cf. veronense*"; mandible in Priabonian stratotype, Italy; 349–353.)
 1969 Bartolomei, G.
 x 1973 Fuchs, H. (comp. w/ Romanian sir.; 72, 76–77.)
 x *1977 Bizzarini et al. (Late Eoc., Italy; 1–15, pls. 1–2.)
 x 1977 Kordos, L. (comp. w/ *Paralitherium*; 366.)
 x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 4, 12, 16.)
 x 1978c Domning, D.P. (phyletic position; 575–576, 579.)
 1980 Altichieri, L.
 x 1980 Kordos, L. (comp. w/ Hungarian *Eotheroides*; 387–389, 395–397.)
 x 1982b Domning, D.P. (deciduous dentition, comp. w/ *Trichechus*; 608.)
 x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 38–39, 58–59.)
 x *1983 Bizzotto, B. (comp. w/ *P. intermedium*, etc.; 99–111.)
 x 1986 Domning & Ray (comp. w/ Oregon halitheriine; 272.)
 x 1986 Domning et al. (deciduous dentition; 46.)
 x 1988 Domning, D.P. (comp. w/ *Metaxytherium florida-num*; 409–410.)
 Puerto Rico
 1864 Latimer, G. (TMM)
 x 1872a Murie, J. (TMM; in capt.; 191–192.)
 1882 Stahl, A.
 x 1900 Evermann, B.W. (TMM; m25.)
 x 1904 Wilcox, W.A. (TMM; near Ceiba; netting; 387.)
 x 1914 Rabell Cabrero, N. (indeterminate sirs.; Olig.; 66–69.)
 x 1915 Anon. (TMM; in capt., New York; 1216.)
 x *1916a Matthew, W.D. (?*Halitherium antillense*, n.sp.; Olig.; 23–28.)
 1916 Reeds, C.A.
 x 1935 Barrett, O.W. (TMM; 216, 218.)
 x 1956b Anon. (TMM; sound production; 39.)
 *1959 Reinhart, R.H. (*Caribosiren turneri*, n.gen.n.sp.)
 x 1970 Erdman, D.S. (TMM; 638.)
 x 1980 Monroe, W.H. (indeterminate sirs.; Mioc.; 38, 78.)
 x 1980 Ortiz Rivera, E.J. (numerous illustrations of sir. bones.)
 x *1981 Powell et al. (TMM; status; 642–646.)
 1985 Rathbun et al. (TMM)
 x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 571–572, 600.)
 *1990 Freeman & Quintero (TMM; distr.)

- x *1990 MacPhee & Wyss (Oligo-Mioc. sirs. & localities; 2, 14–17, 21–38, 41.)
 1990 Mignucci G., A.A. (TMM; mortality)
- Pugmeodon* Kaup, 1838 (= *Halitherium*)
- x *1834 Kaup & Scholl (n.gen.; nomen nudum; 16.)
 x *1838a Kaup, J.J. (n.gen.; Middle Olig., Mainz Basin, Germany; 319, pl. 2.)
 x 1840 Kaup, J.J. (comp. w/ *Manatus*; 676.)
 x 1847b Gervais, F.L.P. (syn. of *Halitherium*; 207, 220.)
 x 1872a Gill, T. (in classification; 92.)
 x 1932a Simpson, G.G. (m481.)
 x 1941 Kretzoi, M. (in classification; 151, 154.)
 x 1942b Kaltenmark, J. (m103.)
 x 1978c Domning, D.P. (syn. of *Halitherium*; m576.)
 x *1987b Domning, D.P. (syn. of *Halitherium*; 122–125.)
- Pugmeodon schinzii* Kaup, 1838 (= *Halitherium schinzii*)
- x *1834 Kaup & Scholl (n.gen.n.sp.; nomen nudum; 16.)
 x *1838a Kaup, J.J. (n.gen.n.sp.; Middle Olig., Mainz Basin, Germany; 319, pl. 2.)
 x 1839b Meyer, H.v. (syn. of *Halianassa Studeri*; 77.)
 x 1840 Kaup, J.J. (considered to include *Manatus fossilis*; 676.)
 x 1846 Meyer, H.v. (syn. of *Halianassa Collinii*; 328.)
 x *1987b Domning, D.P. (proposed designation as type species of *Halitherium* & *Halianassa*; 122–125.)
 x *1989 ICZN (designated type species of *Halitherium*; 83–84.)
- Radiotracking: SEE Tagging Methods
- Red Sea (SEE ALSO: Africa; Asia)
- *1828–
 1899 Hemprich & Ehrenberg (*Halicora Hemprichii* & *H. Lottum*, n.spp.)
- x *1834 Rüppell, E. (*Halicore tabernaculi*, n.sp.; anatomy & natural history; 99–114, pl. 6.)
 1871 Klunzinger, C.B.
 1878 Klunzinger, C.B.
 x 1895 Yerbury & Thomas (DD; Aden; 555.)
 1902 Anderson & De Winton
 x 1905 Linstow, O.v. (DD; Assab, Eritrea; nematode *Ascaris halicoris*; m258.)
 x 1906b Dexler & Freund (DD; 50, 66.)
 x 1906c Dexler & Freund (DD; color; 568.)
 x 1912 Issel, A. (DD; Assab, Eritrea; 121.)
 x 1923a Petit, G. (DD; 77, 83.)
 x 1926 Cheesman, R.E. (DD; 348, m350.)
 x 1928 Prater, S.H. (DD; 84, pl. 1.)
 x 1930 Aharoni, J. (DD; dispersal through Suez Canal; 330.)
 1939 Budker, P.
- 1943 Bertram, G.C.L. (DD)
 1944 Gohar, H.A.F. (DD)
 x *1957 Gohar, H.A.F. (DD; distr., 4–5, 40, 42; anatomy, natural history, taxonomy, 6–49.)
 1963 Bertram, G.C.L. (DD)
 x 1968 Gewalt, W. (attempted rescue of supposed “shipwrecked sailors” [dugongs]; 123.)
 x 1971 Hellwing & Steinitz (DD sightings & skull; Gulf of Elat; 11–12.)
 x 1972 Por, F.D. (DD; El Hamira Bay, Gulf of Aqaba; 12.)
 x 1973 Bertram & Bertram (DD; distr.; 306–307.)
 1976 Berhanu, A. (DD; Dahlac Islands)
 x 1976 Ilani, G. (DD; Gulf of Aqaba; 161.)
 x *1976 Lipkin, Y. (DD; stomach contents & feeding; 81–96.)
 1976 Moore & Balzarotti (DD; Suakin Archipelago)
 1976 Ormond, R.F.G. (DD)
 x 1976 Paz & Ilani (DD; sightings & captures; 73–74.)
 1978 Ormond, R.F.G. (DD)
 x 1979 Hilmy et al. (DD; hematology; 197–203.)
 x 1980 Blair, D. (DD; trematode *Indosolenorchis hirudinaceus*; 512–513.)
 x 1981a Blair, D. (DD; parasitic flukes; 15.)
 x *1982 Robineau & Rose (DD; Djibouti; 233–238.)
 1987 Frazier et al. (DD)
 1987 Vine & Schmid (DD)
 x 1988 Fouda, M.M. (DD; 503.)
 x 1989 Buffrénil & Schoevaert (DD; Djibouti; pachyostosis; 2108.)
 x *1989 Preen et al. (DD; conservation; 1–15, 20, 22.)
 x *1989a Preen, A. (DD; status & conservation; 1–13, 17–18, 30–31, 36–40, 57, 59–60, 94–115, 117–118, 121–122, 128–131, 133–134, 136–137, 176, 195–200.)
- Rehabilitation: SEE Captivity, Sirenians in; Pathology
- Religious, Superstitious, or Ornamental Use or Observation (SEE ALSO: Economic Use; Mermaid Legend)
- x 1796 Stedman, J.G. (Suriname; “Watra Mama”; 178.)
 x 1805 Pitou, L.-A. (TMM; French Guiana; vernacular names & spiritual attributes; 2: 260.)
 x 1820 Raffles, T.S. (DD; Malaya; considered a “royal fish,” 180; tears, 181.)
 x 1831 Spix & Martius (Indians, Brazil; ?intercourse with manatees; 1123.)
 x 1834 Rüppell, E. (DD; Red Sea; rosaries made of tusks & their use as charms, 113; hide used for the Tabernacle, 99, 113.)
 1836 Smyth & Lowe (Sencis Indians, Peru; constellation Scorpio identified as manatee; 229.)
 x 1838 Humboldt, A.v. (TMM; Orinoco R.; meat

- avoided, 9; ear bones used in magic, 9–10.)
- x 1857 Baikie, B. (TS; lower Niger R.; bones & other ?hunting trophies; 31.)
- 1866 Duff, R. (TMM; Guyana)
- x 1869 Marcoy, P. (South America; use of manatee hide in funeral; 1: 671–672.)
- 1873 Semper, C.G. (Palau; dugong-atlas bracelets)
- x 1875 Hartt, C.F. (Indians, Brazil; area of sky near Orion identified as manatee; legend; 39.)
- x 1875 Marcoy, P. (South America; use of manatee hide in funeral; 2: 42.)
- 1876 Gill, W.W. (DD; Torres Strait)
- x *1881 Flower, W.H. (West Africa; manatee-catching society; 454–455.)
- x 1881 Nordenskiöld, A.E. (HG; Bering Is.; carving of ribs; m280.)
- x 1887 Roviroso, J.N. (TMM; Mexico; bones used as charms against spells; 357–358.)
- x 1888 Hart, H.C. (DD; Hebrews; use of hide in Tabernacle; 26–27.)
- x 1895 Thurston, E. (DD; Sri Lanka; treasure in stomach; 98–99.)
- x 1901 Anon. (DD; Torres Strait; 21238–21239.)
- x 1906 Annandale, N. (DD; Malays; tears, ritual killing; 241.)
- x 1906b Dexler & Freund (DD; Malays; tears; 63–64.)
- 1912 Rodway, J. (TMM; Guyana)
- x 1913 Frobenius, L. (TS; Yoruba; myths & hunting rituals; 1: 199.)
- 1915 Roth, W.E.
- x 1916 Lucas, F.A. (DD & Tabernacle, 315–316; *Trichechus* meat deemed to be fish by Catholics, 316.)
- 1917 Beebe et al. (Guyana; “water-mamma” charm)
- x 1917 Fairchild, D. (DD; Malays; tears; 344.)
- x 1917 Rodway, J. (TMM; Guyana; 491–499.)
- x 1920 Schoff, W.H. (DD; Biblical references to use of hide; 10–11, 51–53, 77, 140.)
- x 1922 Swanton, J.R. (TML; Florida; bones in graves; 389.)
- x *1923a Petit, G. (DD; Madagascar, tears, 77, myth, 78–82, ritual, 80–82; Tabernacle, 82; charms, Philippine dugong-bone society, Torres Strait, 83; *Trichechus*, 79, 81.)
- x *1924 Dandouau, A. (DD; Madagascar; hunting rituals; 152–153.)
- 1927 Landtman, G. (DD; New Guinea; hunting rituals)
- x *1927b Petit, G. (DD; Madagascar; hunting rituals; 246–250.)
- x *1928 Prater, S.H. (DD; Madagascar, rites, 87; rosaries, 88; treasure in stomach, 88–89; tears, 95; myths, 96–97.)
- x 1929 Petit & Rochon-Duvigneaud (DD; Madagascar & Java; tears; 132.)
- x 1931 Meek, C.K. (TS; Nigeria; myths & taboos, 76–78; virility charm, 304.)
- *1932 Haddon, A.C. (DD; Torres Strait)
- x 1934 Hirasaka, K. (dugong-atlas bracelets; 4222.)
- x *1934 Thomson, D.F. (DD; Cape York, Australia; hunting magic & ritual; 240–241, 250–255.)
- x 1935 Barrett, O.W. (Nicaragua; manatee-stapes charms; 218.)
- 1935 Strong, W.D. (TMM; Honduras; depicted on pottery)
- x 1937 Orico, O. (Amazonia; manatee legends; 190–191.)
- x 1937 Woods, F.J. (TS; Nigeria; superstitions & butchering rituals; 28.)
- x 1939 Wavrin, M. de (*Trichechus*; South America; meat thought to cause indigestion & erysipelas; 196.)
- x 1944 Pereira, M.N. (Urubú R., Brazil; veneration of stone in shape of manatee; 54.)
- x 1946 Swanton, J.R. (TML; Florida; bones [“tusks”] in graves; 250, 282.)
- 1948 Berndt, R.M.
- x 1948 Bessac & Villiers (TS; Senegal; fear of water exhaled by wounded manatee; hunting rituals; legendary origin of manatee-hunting taboo among Peulhs; 189.)
- x 1951 Aragon, F. (dugong-atlas bracelets; 267–268.)
- x 1956 Harry, R.R. (DD; East Indies; tears; m27.)
- 1956 Mountford, C.P.
- 1958 Cruis, G. (Brazil; intercourse with manatees)
- x 1958 Savory, B. (DD; Tabernacle, witchcraft on Socotra, 257; fishing, m258.)
- x 1960 Williams, J.H. (DD; Persian Gulf; thought to foretell storms; 9.)
- 1963 Bertram, G.C.L. (DD)
- x 1963 Pfeffer, P. (DD; Indonesia; tears, tusks; 150.)
- 1964 Berndt, R.M.
- x 1964 Cansdale, G. (TS; Ghana; ritual hunting; m171.)
- 1964 Mountford, C.P.
- x 1967 Feriz, H. (Brazil; clay model of manatee head; 373–374.)
- x 1967 Jones, S. (DD; India; meat, tears; 218.)
- x 1967 Pereira, M.N. (Brazil; Indian legend of origin of manatee; 467.)
- x 1967 Welsby, T. (DD; Moreton Bay, Queensland; taboo for women to see a dead dugong; 2: 240–241.)
- 1970 Wilbert, J. (TMM; Venezuela)
- x 1971 Almeida, A. de (DD; Timor; legends, 209, 211–212, 220; amulets & elixirs, 212.)
- x 1971 Kingdon, J. (DD; East Africa; origin legend, intercourse with dugongs by fishermen; 398.)
- 1972 Kent, J.
- x 1974 Sikes, S. (TS; head & teeth as luck charms; m466.)
- 1975 Oakley, K.P. (fossils)
- x 1976 Allen et al. (DD; Sulawesi; tears as aphrodisiac; 35.)

- x *1976 Loveland, F.O. (TMM; Nicaragua; symbolic significance, myths, rituals; 70-81.)
- x 1976 Reynolds, J.E., III (TML; Florida; popular misconceptions; 210-214.)
- x 1977 Nietschmann, B. (Torres Strait; "calling" dugongs; 14.)
- x 1978 Marshall, A.J. (DD; Australia; Aboriginal story of dugong; 80-84.)
- x 1978 Taylor, D. (DD; Sumatra; tears as aphrodisiac; 205-213.)
- x 1979 Cascudo, L. da C. (*Trichechus*; Brazil & West Africa; pop. acc.; 28.)
- 1979 Pendergast, D.M.
- 1980e Hudson, B.E.T. (DD; Papua New Guinea; myths & hunting rituals)
- x 1981 Chase, A. (DD; Australia; traditional use & beliefs; 112-122.)
- x 1981 Hendrokusumo et al. (DD; Indonesia; taboo on hunting; 10.)
- x 1981 Nietschmann & Nietschmann (DD; Torres Strait; hunting rituals; 61.)
- x 1982 Michelson, R.C. (Mexico; Olmec sculpture of manatee; 79, 83.)
- x 1983 Bradley et al. (TMM; hypothetical use by Olmecs; 1-82.)
- 1984b Anon. (DD; tears)
- x 1985 McKillop, H.I. (TMM; Belize; bone used for carvings, 342-345, 348; ear bones used as charms, 345.)
- x 1985 Said, R.J. (Kenya; legends of origin of dugong; 34.)
- x 1986 Colmenero-R. & Hoz-Z. (TM; Mexico; bones used for jewelry, 1010; meat accorded religious value, m1011.)
- *1986c Hudson, B.E.T. (DD; Papua New Guinea; hunting traditions)
- x *1988 O'Shea et al. (TMM; Venezuela; bones kept for luck in hunting, ear bones used as amulets, 293-294; Warauno folklore, 294.)
- x 1988 Reeves et al. (TS; Sierra Leone; hunting beliefs; m78.)
- x 1989a Preen, A. (DD; Arabian region; tusks used in sword handles, 51, 114; meat ?prohibited to Shia Muslims, 52; genitals of captured dugongs kept covered, 97, 99; ritual slaughter & acceptability to Muslims as food, 99, 115.)
- x *1991 Bradley, J.J. (DD; Australia; hunting rules, 94-101, 107; Dugong Dreaming sites, 102-103.)
- Reproduction: SEE Birth and Breeding
- Respiration and Diving (SEE ALSO: Locomotion)
- x 1821a Home, E. (DD; hydrostasis; 269-270.)
- x 1862 Phillippo (*Trichechus*; heart adaptations; 685.)
- x 1873 Conklin, W.A. (*Trichechus*; in capt., New York; 166.)
- x 1876 Chapman, H.C. (TMM; 461.)
- x 1878 Brown, A.E. (TMM; in capt., Philadelphia; 296.)
- x 1880 Murie, J. (TMM; in capt., London; breathing intervals; 25.)
- x 1881 Crane, A. (*Trichechus*, in capt., Brighton, 457; effects of injury, 459.)
- x 1884 Stejneger, L. (HG; inability to dive; 188.)
- x 1885a Woodward, H. (HG; hydrostasis; m462-463.)
- x 1896 Marshall, W. (role of skeletal weight in aiding submergence; m46.)
- x *1899 Steller, G.W. (HG; 198-199.)
- x 1906 Annandale, N. (DD; netted at 10-12 fathoms; 242.)
- x *1906b Dexler & Freund (DD; 50-55, 60.)
- x 1906c Dexler & Freund (DD; caudal fin; 580.)
- x 1907 Pick, F.K. (DD; lung adaptations; 269-271.)
- x 1908b Gudernatsch, J.F. (TML; in capt., New York; breathing; 229, 232.)
- x *1922 Golder, F.A. (HG; exposure of back above water; 238.)
- x *1922 Parker, G.H. (TML, 128-135; DD, m134.)
- x *1923 Nopcsa, F.v. (respiration, diving, & pachyostosis; 353-359.)
- x 1923a Petit, G. (DD; 76-77.)
- x 1924-
- 1925 Vosseler, J. (TI; in capt., Hamburg; lengthening of respiratory interval with age, 221; breathing while asleep, 224.)
- x 1931 Sickenberg, O. (effects on endocrine function; 433-439.)
- 1934 Genschow, J. (closing of nasal passages)
- x 1935 Barrett, O.W. (TMM; Central America; diving time, 217; breathing, 218.)
- x *1935a Wislocki, G.B. (TML; lung adaptations; 395.)
- x 1939 Coates, C.W. (TI calf; in capt., New York; diving times [up to 14 min.], 145; "snapping" nostrils shut, 146.)
- x 1941 Irving et al. (TML; m151, m158, 166.)
- x *1941 Scholander & Irving (TML; 169-191.)
- x 1944 Pereira, M.N. (TI; opening breathing holes in floating meadows, 57; respiratory disease, 65.)
- x 1945 Santos, E. (TI; sliding backwards on submergence; 158.)
- x 1948 Mendes, A. (TI; sliding backwards on submergence; 326.)
- x 1951 Bourlière, F. (TML; maximum submergence 16 min.; 21.)
- x *1951b Moore, J.C. (TML; teaching young to breathe, 27; diving times, 29-31; raising head in rough water, 29.)
- x 1953 Kretzoi, M. (hydrostatic function of pachyostosis; 276-277.)

- x 1954 Aragão, A. de (TI; sliding backwards on submergence; 55.)
- x 1955 MacMillan, L. (DD; Australia; 18.)
- x 1956 Moore, J.C. (TML; hydrostasis; 17-18.)
- x 1958 Loftin, H. (*Trichechus*; teaching young to breathe; pop. acc.; 256.)
- x 1959 Jones, S. (DD; in capt.; 199.)
- x 1961 Jonklaas, R. (DD; 5-6.)
- x 1961 Slijper, E.J. (foramen ovale & ductus arteriosus; 544, 548-549.)
- x 1963 Tenney & Remmers (*Trichechus*, DD; quantitative lung morphology; 54-55.)
- x *1964a Bertram & Bertram (TMM; Guyana; 116-118; vertical movement, 117-118.)
- 1964 Harrison & Tomlinson (DD)
- x 1965a Kaiser, H.E. (functional anatomy; 229.)
- x 1965 Lluch B., D. (TMM; in capt., Mexico; approximate diving times; 418.)
- x *1966 Jarman, P.J. (DD; Kenya; 84.)
- x *1966a Kaiser, H.E. (functional anatomy & hydrostasis; 59, 61-69.)
- x 1966b Kaiser, H.E. (functional anatomy; 426.)
- x 1966 Kinzer, J. (TS, in capt., Abidjan; breathing; 51.)
- x *1967 Kenny, R. (DD; 372-373.)
- x 1968 Van den Bergh, H. (TS, TML; longest dives; 449-451.)
- x 1969 Hartman, D.S. (TML; 349-350.)
- x 1969 Strauss, M.B. (*Trichechus*; m2, m5, m10.)
- x 1971b Domning, D.P. (HG; inability to dive; 218-219.)
- x 1971 Kingdon, J. (DD; East Africa; while feeding; 395.)
- x 1972 Blessing, M.H. (*Trichechus*; myoglobin concentration; 475-479.)
- 1973 Kooyman, G.L.
- x 1973 Sonoda & Takemura (TMM, TI; average respiration times; 19.)
- x 1975 Pinto da Silveira, E.K. (TMM; difficulty breathing out of water due to body weight; 225.)
- x 1976 Allen et al. (DD; in capt., Jakarta; 38.)
- 1976 Harrison & Ridgway
- x 1976 White et al. (TML; oxyhemoglobin dissociation; 415-416.)
- x 1977 Farmer & Bonaventura (TI; hemoglobin properties; 916.)
- 1977 Versaggi, C.S. (bone physiology)
- x *1978 Anderson & Birtles (DD; Queensland; surfacing modes & diving times; 6-8, 10-11, 13, 17-19.)
- x 1978b Domning, D.P. (hydrodamalines; use of neck, 122-123; buoyancy, 129-132, 141-143.)
- x 1978 Marsh et al. (DD; review of respiratory physiology; 164-165.)
- x 1978 McCabe et al. (DD; oxygen affinity of hemoglobin; 19-22.)
- x 1979 Anderson, P.K. (DD; exhalation directed forward, 117; respiratory behavior, 125-126.)
- x 1979 Best & da Silva (TI; in capt.; respiration & heart rate; 29.)
- x *1979a Farmer et al. (TI; hemoglobin & whole blood properties; 231-238.)
- x *1979 Hartman, D.S. (TML; Florida; deepest dive to 8 m, 38; surfacing under vegetation mats, 41; surfacing behavior & diving times, 72-82, 86, 113, 119, 128; resting, 82-84; sneezing, 92; ?bloat, 124-125.)
- x 1979 Tas'an et al. (DD; in capt., Jakarta; breathing intervals; 10, 23.)
- x 1980 Dekker, D. (newborn TMM; in capt., Amsterdam; 22-24.)
- x 1980 Domning, D.P. (TI calves; pathological floating; m544.)
- x *1980 Gallivan & Best (TI; metabolism & respiration; 245-253.)
- x *1980 Gallivan, G.J. (TI; respiratory control by carbon dioxide; 254-261.)
- x 1980 Kataoka & Asano (DD; in capt., Toba, Japan; range of breathing times; 270.)
- x 1981a Anderson, P.K. (DD; diving times & behavior; 642-643.)
- x 1981 Elliott et al. (DD calf; pathological floating; 204.)
- x 1981 Kataoka & Asano (DD; in capt., Toba, Japan; range of breathing times; 202.)
- x 1981 Marsh et al. (DD; pregnant females surface & sink at steeper angles; 261, 265.)
- x *1981a Reynolds, J.E., III (TML; Florida; diving times; 237, 241.)
- x 1981b Reynolds, J.E., III (TML; Florida; synchronous breathing; 440, 444.)
- x 1981 Santiapillai, C. (DD; Sri Lanka; dives of 15-20 min.; 4.)
- x 1982b Anderson, P.K. (DD; Australia; diving times & modes of surfacing when disturbed & undisturbed, 88-89, 91, 93; relationship to feeding, lactating, etc., 97.)
- x 1982 Barnett & Johns (DD; Queensland; 522.)
- x 1982 Best, Ribeiro et al. (TI calves; pathological floating; 264.)
- x 1983 Irvine, A.B. (TML; metabolic rate & oxygen consumption; 317-327.)
- x 1983 Wall, W.P. (TM; bone density as diving adaptation; 197, 201-204.)
- x 1984c Anderson, P.K. (DD; Queensland; diving times & modes of surfacing; 39-40.)
- x *1984 Galantsev & Mukhametov (TM; respiratory & heart rates; 201-205.)
- x 1984 Irvine & Scott (TML; Florida; diving times; 19, 22-24.)
- x 1985 Bengtson & Fitzgerald (TML; Florida; vocalizations & synchronous respiration; 817.)
- x 1986a Anderson, P.K. (DD; Shark Bay, Australia; feeding

- at depths of 8.5 m or more; 483.)
- x 1986 Gallivan & Best (TI; feeding, metabolism, & ventilation; 552-557.)
- x *1986 Gallivan et al. (TI; heart rates & gas exchange in diving; 415-423.)
- x 1986 Williams, T.R. (DD; Papua New Guinea; average diving times ca. 10 min., and body flexure extreme, when diving in 40-50 feet of water; 68.)
- x 1987 Bergey & Baier (TML; lung mechanical properties; 63-75.)
- x 1988 Marsh, H. (DD; deepest dive to 20 m; 15.)
- x 1989 Buffrénil & Schoevaert (hydrostasis; 2118.)
- x 1990 Marsh & Rathbun (DD; Queensland; breathing intervals; 92.)
- x 1991 Bradley, J.J. (DD; Australia; pregnant females dive quicker and at sharper angle; 96.)
- x *1991 Domning & de Buffrénil (hydrostasis; 331-368.)
- Respiratory System**
- x *1820b Home, E. (DD; 319, pl. 29.)
- x 1820 Raffles, T.S. (DD; 178.)
- x 1834 Rüppell, E. (DD; diaphragm, lungs, trachea; 106.)
- x *1838 Owen, R. (DD; 36-39.)
- x 1847 Bischoff, T.L.W. (DD; hyoid; 3-6, pl. 1.)
- x 1851 Gosse & Hill (TMM; nostrils; 342-343.)
- x 1857 Rapp, W.v. (TML; larynx, trachea, lungs; 89-92, pl. 3.)
- x *1872a Murie, J. (TMM; 178-180.)
- x 1876 Chapman, H.C. (TMM; 457, 461.)
- x 1886 Waldeyer, W. (*Trichechus*; pharynx; 245-246, 248.)
- 1887 Leche, W.
- x 1897 Beddard, F.E. (TI; pleurisy; 47.)
- 1898 Müller, O.
- x *1899 Steller, G.W. (HG; 193-194.)
- 1905 Oppel, A.
- x *1906b Dexler & Freund (*Trichechus*, 54; DD, 54, 60.)
- x *1907 Pick, F.K. (DD; lung anatomy & histology; 245-272.)
- x 1931 Sickenberg, O. (adaptations of thorax & lungs; 438-439.)
- *1934 Genschow, J. (nasal passages)
- x *1935a Wislocki, G.B. (TML; 385-396, 2 pls.)
- 1940 Bélanger, L.F.
- x 1953 Quiring & Harlan (TM; diaphragm, trachea, lungs; 194, 202.)
- x 1959a Engel, S. (DD; lung anatomy & histology; 102-104, 106, 111-114.)
- x *1959b Engel, S. (DD; lung anatomy & histology; 90-100.)
- x *1962 Engel, S. (DD; lung air-passages; 95-107.)
- x 1963 Tenney & Remmers (*Trichechus*, DD; quantitative lung morphology; 54-55.)
- x 1965b Kaiser, H.E. (horizontal diaphragm & body-cavity nomenclature; 425-428.)
- x *1966a Kaiser, H.E. (horizontal diaphragm & body-cavity nomenclature; 59, 61-69.)
- x 1976 Allen et al. (DD; larynx, trachea, diaphragm, lungs; 41, 46.)
- x 1976 Boever et al. (TI; lung abscesses; 928.)
- x 1978a Domning, D.P. (TI; functional anatomy of nostrils; 57.)
- x 1980 Irvine et al. (TM; lung lesions; 4-5.)
- x 1981 Odell et al. (TML; lung weights; 54-58.)
- x 1985 Mackay-Sim et al. (TM; serial sections of nasal cavity; 188-189.)
- x *1987 Bergey & Baier (TML; lung mechanical properties; 63-75.)
- x 1991 Domning & de Buffrénil (position & structure of lungs & diaphragm; role in hydrostasis; 332-334, 350-357, 359.)
- 1992 Dong et al. (DD; China; larynx, trachea, lungs)
- Reviews of Books, etc. (SEE ALSO in Bibliography under work reviewed)
- x 1974 Bertram, G.C.L. (of Kaiser, H.E., 1974; 393-394.)
- x 1975a Domning, D.P. (of Brandt, J.F., 1974; 556-558.)
- x 1976 Kesner & Lance (of Kaiser, H.E., 1974; 798.)
- x 1980 Odell, D.K. (of Hartman, D.S., 1979; 29.)
- x 1981 Purse, B. (of film on hunting of Australian dugongs; 199-200.)
- x 1986 Rathbun & Best (of Nishiwaki & Marsh, 1985, and Caldwell & Caldwell, 1985; 236-237.)
- Rhyt-: SEE ALSO Ryt-
- Rhytine* Burmeister, 1837 (= *Hydrodamalis*)
- x *1837 Burmeister, H. (n.gen.; in classification; 793.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis*; 75.)
- Rhytine stelleri* (Retzius, 1794) Burmeister, 1837 (= *Hydrodamalis gigas*)
- x *1837 Burmeister, H. (n.comb.; in classification; 793.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 75, 93.)
- Rhytinea* Brandt, 1846 (tribe or family; = *Hydrodamalinae*)
- *1846c Brandt, J.F.
- x 1978b Domning, D.P. (syn. of *Hydrodamalinae*; m13.)
- Ri (marine animal of New Ireland, Papua New Guinea)
- x *1982 Wagner, R. (not a dugong; 33-39.)
- x 1983 Mead, J.G. (not a porpoise, possibly a dugong; 161-162.)
- x 1983 Sibert, J.R. (probably a marine mammal; 159-161.)

- x *1983 Wagner et al. (not a dugong; 113-125.)
- x 1985 Beckjord, J.-E. (probably a dugong; 154-155.)
- x 1985 Greenwell, J.R. (not a dugong; 151-154.)
- x 1985 Sibert, J.R. (possibly a dugong; 144-145.)
- x 1985 Wagner, R. (not a dugong; 149-151, 156.)
- x *1986 Williams, T.R. (definitely a dugong; 61-68.)
- x 1987 Greenwell, J.R. (history of study; 140-144.)
- x 1988 Sehm, G.G. (not a dugong; 145-149.)
- x 1988 Williams, T.R. (definitely a dugong; 149-151.)

Ribodon Ameghino, 1883

- x *1883 Ameghino, F. (n.gen.; 112-113.)
- x 1886 Ameghino, F. (diagnosis; 147.)
- 1891 Ameghino, F.
- 1893 Ameghino, F.
- x 1941 Kretzoi, M. (in classification; 154-155.)
- x *1953 Pascual, R. (review; 163-181, 2 pls.)
- x 1974 Savage, J.M. (significance for manatee zoogeography; 20.)
- x 1978c Domning, D.P. (phyletic position; m575, 579.)
- x *1982b Domning, D.P. (?Plioc., North Carolina; 604.)
- x 1982 Kleinschmidt, A. (m378-379.)
- x 1983a Domning, D.P. (pop. acc.; 10-11.)
- x 1986 Domning & Hayek (in cladistic analysis of trichechids; 132-133.)
- x 1986 Frailey, C.D. (?*Ribodon*; ?Late Mioc., Peru-Brazil; 5, 34-35.)

Ribodon limbatus Ameghino, 1883

- x *1883 Ameghino, F. ("*R. limbato*," n.gen.n.sp.; 112-113.)
- x 1885 Ameghino, F. (Argentina; 100-105.)
- x 1886 Ameghino, F. (Argentina; 147-151.)
- x 1932a Simpson, G.G. ("*R. limbato*"; m422.)
- x *1953 Pascual, R. (review; 163-181, 2 pls.)
- x 1967 Paula Couto, C. de (comp. w/ *Sirenotherium*; 346-348, 350, 355-356.)
- 1976 Reinhart, R.H. (review; 279-280.)
- x *1982b Domning, D.P. (new material & phyletic position; 602-604, 606, 609, 611-613, 616.)
- x 1986 Frailey, C.D. (comp. w/ ?*Ribodon* from Peru-Brazil; 34.)

Romania

- 1871 Pávay, E.
- 1886 Koch, A.
- 1894 Koch, A.
- x 1931 Simionescu, I. (*Manatus maeoticus*; Mioc., Balcic; 146, 155.)
- 1934b Sickenberg, O.
- 1944 Tulogdy, J.
- 1959 Fuchs, H.
- 1967 Grigorescu, D. (cf. *Halitherium*; Eoc.)
- x 1970 Fuchs, H. (?*Halitherium* sp.; Eoc., Cluj; 1185.)

- 1971 Fuchs, H.
- x 1973 Fuchs, H. (indeterminate sir.; Late Eoc., Cluj; 71.)
- 1975 Fuchs, H.
- 1978 Macarovici, N.
- 1984 Nicorici & Popovici
- 1988 Fuchs, H.
- 1990 Fuchs, H.

Rosmarus indicus Boddaert, 1785 (= *Dugong dugon*)

- *1785 Boddaert, P. (n.sp.)
- Russia (SEE ALSO: Arctic Region; Bering Sea; Bessarabia; Sakhalin)
- 1950 Gromova, V.I.
- D *1957 Pronina, I.G. (*Kronokotherium brevimaxillare*, n.gen.n.sp.; Kamchatka)
- 1977 Malukovich, V. (HG; Kamchatka; supposed sighting in 1976)
- D 1985 Sinel'nikova et al. (*Desmostylus*; Kamchatka)

Rytina Illiger, 1811 (= *Hydrodamalis*. Spelled *Rhytina* by Berthold, 1827, and most later authors; this is an unjustified emendation.)

- 1758 Müller, G.F.
- 1790 Beniowski, M.A.v.
- x *1811 Illiger, C. (n.gen.; in classification; 141.)
- x 1824 Harlan, R. (m390.)
- x 1825a Harlan, R. (m278.)
- x 1827 Berthold, A.A. (first use of emended spelling "*Rhytina*"; in classification; 62.)
- x 1828 Billberg, G.J. (?syn. of *Haligyna*; tab. A, 33.)
- 1829 Lesson, R.-P.
- x 1835b Duvernoy, G.L. (in classification; tab. 4.)
- 1838 Baer, K.E.v.
- x *1840 Baer, K.E.v. (distr. & extinction; 53-80.)
- x 1846a Brandt, J.F. ("*Rhytina*"; discusses his study of masticating pads; 92-94.)
- x 1861 Strauss-Durckheim (Hudson's Bay; 514.)
- x 1863a Brandt, J.F. ("*Rhytina*"; distr. & extermination; 558-564.)
- x 1864 Dana, J.D. (in classification; m169.)
- x 1866a Brandt, J.F. ("*Rhytina*"; extermination; 279-282.)
- x 1867c Brandt, J.F. ("*Rhytina*"; brain, comp. w/ DD & *Trichechus*; 269-270.)
- x 1872a Gill, T. ("*Rhytina*"; in classification; 92.)
- x 1873 Gill, T. ("*Rhytina*"; phylogeny; m272.)
- x 1874 Flower, W.H. ("*Rhytina*"; m5.)
- x 1875a Owen, R. ("*Rhytina*"; brain proportions; 102, m105.)
- x 1875b Owen, R. ("*Rhytina*"; comp. w/ *Prorastomus*; 559-560, 563, 566.)
- x 1875 Wilder, B.G. ("*Rhytina*"; m111.)
- x 1883a Cope, E.D. ("*Rhytina*"; m54.)

- x 1884 Gaudry, A. ("Rhytine"; comp. w/ *Halitherium Chouqueti*; 375.)
- x *1885b Nordenskiöld, A.E. ("Rhytina"; defense of post-1768 sighting reports, 280-284; distribution of specimens to museums, 284-285.)
- x 1889b Dollo, L. ("Rhytina"; comp. w/ *Miosiren*; 416, 418-419, 421.)
- x 1889 Lefèvre, T. ("Rhytina"; descent from *Crassitherium* of Belgian Olig., m198, m200.)
- x 1891 Flower & Lydekker (anatomy; 213, 221-222.)
- x 1893 Holder, C.F. ("Rhytina"; skeleton at California Academy of Science; 236.)
- 1893 Hutchinson, H.N.
- x 1895 Palmer, T.S. (syn. of *Hydrodamalis*; 449.)
- x 1899 Palmer, T.S. ("Rhytina"; syn. of *Hydrodamalis*; m494.)
- x 1901 Elliott, D.G. ("Rhytinas"; m5.)
- x 1904 Freund, L. ("Rhytina"; manus, comp. w/ DD; m368, 394.)
- x 1904a Lorenz, L.v. ("Rhytina"; pelvis; 1-2, 7-9, pl. 1.)
- xv 1906b Dexler & Freund ("rhytina"; m59, m68, m70.)
- x 1912 Issel, A. ("Rhytina"; comp. w/ *Felsinotherium subappeninum*; m121.)
- x 1914a Freund, L. ("Rhytina"; scapula, comp. w/ DD embryo; m375.)
- xD 1915 Hay, O.P. ("Rhytina"; comp. w/ *Desmostylus*; m386.)
- x 1916 Lucas, F.A. (pop. acc.; 316-317.)
- x 1916a Matthew, W.D. ("Rhytina"; m27.)
- x 1923 Nopcsa, F.v. ("Rhytina"; pachyostosis; m357.)
- x 1924 Thomas et al. ("Rhytina"; name preferred to *Hydrodamalis*; 347.)
- x 1925 ICZN (syn. of *Hydrodamalis*; 34, 38-40.)
- x 1926 Sanielevici, H. ("Rhytina"; diet & mastication; 251, 254.)
- x 1927 Pfizenmayer, E.W. ("Rhytina"; m494.)
- 1930a Simpson, G.G.
- x 1930 Sverdrup, H.U. ("Rhitina"; Cape Chaplin, Siberia, ca. 1910; 248.)
- 1933 Bahrtdt, H.J.
- x 1942a Kaltenmark, J. ("Rhytina"; gen. acc.; 56-57, 61, 63.)
- x 1945 Simpson, G.G. (syn. of *Hydrodamalis*; in classification; 136.)
- x 1954b Friant, M. ("Rhytina"; brain; 129, 134-135.)
- 1957 Pronina, I.G.
- x 1968 Rice & Scheffer ("Rhytina"; syn. of *Hydrodamalis*; 12.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis*; 13, 74-75.)
- x 1981c Domning, D.P. (synonymy with *Hydrodamalis*; 130.)
- x 1982 Domning, Rice et al. (syn. of *Hydrodamalis*; m305.)
- x 1982 Kleinschmidt, A. (syn. of *Rhytina*; 383.)
- Rytina borealis* (Gmelin, 1788) Illiger, 1815 (= *Hydrodamalis gigas*)
- 1802 Tilesius, W.G.
- *1815 Illiger, C. (n.comb.; 64, 75.)
- *1836 Cuvier, F.
- x 1837 Richardson, J. (m162.)
- x 1846b Brandt, J.F. ("Rhytina"; parasites; 189-192.)
- x 1847 Brandt, J.F. ("Rhytina"; new material, comp. w/Recent sirs.; 46-48.)
- x 1859 Baird, W. ("Rhytina"; nematode *Ascaris*; 148-149.)
- 1866b Brandt, J.F.
- x 1867a Brandt, J.F. ("Rhytina"; distr. & extermination; 445-451.)
- x 1873 Lütken, C.F. ("Rhytina"; parasites & skin fragment; 270-274, pl. 2.)
- x 1878 Anon. ("Rhytina"; 9 skulls at St. Petersburg; m321.)
- x 1878 Brown, A.E. ("Rhytina"; gen. acc.; 298.)
- x 1893 Schweder, G. ("Rhytina"; gen. acc.; 52-55.)
- x 1934 Hatt, R.T. ("Rhytina"; m535.)
- x 1951 Kleinschmidt, A. ("Rhytina"; syn. of *R. gigas*; m292.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 93, 163.)
- Rytina cetacea* Illiger, 1815 (nomen nudum)
- *1815 Illiger, C. (n.sp.; nomen nudum)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 93.)
- Rytina gigas* (Zimmermann, 1780) Gray, 1850 (= *Hydrodamalis gigas*)
- *1850 Gray, J.E. (n.comb.)
- x 1876 Southwell, T. ("Rhytina"; syn. of *R. stelleri*; 76.)
- x *1883 Stejneger, L. (collection of specimens, 59, 61-62; sexual variation, 78-83; date of extermination, 83-84; distr., 84; specimens at Irkutsk destroyed, 84; vernacular name, 85; tail shape & sketches, 85-86.)
- x *1884a Stejneger, L. (invalidity of post-1768 sighting reports; 181-189.)
- x 1884b Stejneger, L. (collection of 12 skulls & other bones; 107-108.)
- x *1884b True, F.W. ("Rhytina"; gen. acc.; 128-136.)
- x *1885a Woodward, H. ("Rhytina"; skeleton; 457-470.)
- x *1886 Stejneger, L. (invalidity of post-1768 sighting reports; 317-328.)
- x 1887 Flot, L. ("Rhytina"; m137.)
- x *1887 Stejneger, L. (invalidity of post-1768 sighting reports; statistics on extermination; 1047-1054.)
- x 1889 Clark, J.W. ("Rhytina"; gen. acc., 340-342;

- skeleton at Harvard, 342.)
- *1891 Büchner, E.
- x 1891 Lucas, F.A. (extermination & collection of specimens; 623-627, pl. 99.)
- x 1893 Evermann, B.W. (collecting of skeletons for U.S. National Museum; 59.)
- x 1893 Schweder, G. ("*Rhytina*"; gen. acc.; 52-55.)
- x 1893 Stejneger, L. (material in various museums; 81.)
- x 1901 Elliott, D.G. ("*Rhytina*"; m5.)
- x 1902 Allen, J.A. ("*Rhytina*"; syn. of *Manati gigas*; 22.)
- x 1904a Lorenz, L.v. ("*Rhytina*"; pelvis; 7-9, pl. 1.)
- x 1905 Toldt, C. ("*Rhytina*"; angular process of mandible; m337.)
- x 1922 Evermann, B.W. (extermination; 15-16.)
- x 1923 Sowerby, A. de C. ("*Rhytina*"; gen. acc.; 135-137.)
- x 1925 Steller, G.W. ("*Rhytina*"; syn. of *Hydrodamalis gigas*; m139.)
- x 1931 Read, B.E. ("*Rhytina*"; ?econ. use in China; 16.)
- x 1935 Sowerby, A. de C. ("*Rhytina*"; ?econ. use in China; 82.)
- x 1937 Murie, O.J. ("*Rhytina*"; ?in Eskimo tradition, St. Lawrence Is.; 345.)
- 1941 Friedrich, H. (skin fragments, Bremen)
- x 1950 Mohr, E. ("*Rhytina*"; skin fragment, Hamburg; 181-185.)
- x *1951 Kleinschmidt, A. ("*Rhytina*"; reconstruction of skeleton & body; 292-314.)
- x *1965 Robineau, D. ("*Rhytina*"; ear ossicles; 412-424.)
- 1967 Rothausen, K.
- x *1969 Robineau, D. ("*Rhytina*"; temporal & ear region; 3, 20-31.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 93.)
- x *1982 Kleinschmidt, A. ("*Rhytina*"; specimens in museums, 367-370; body proportions, 375; reconstruction, 383-387, 393-394, 406-409; bone density, 388-389; pelvis, 390-392; skull, 392-403.)
- x 1983 Kleinschmidt, A. ("*Rhytina*"; specimens in museums; 763.)
- Rytina stelleri* (Retzius, 1794) Desmarest, 1819 (= *Hydrodamalis gigas*)
- *1819 Desmarest, A.G. (n.comb.)
- 1820 Ranzani, C.
- 1833 Brandt, J.F.
- 1845a Brandt, J.F.
- 1845b Brandt, J.F.
- x 1846b Brandt, J.F. ("*Rhytina*"; parasites; 189-192.)
- *1846c Brandt, J.F.
- x 1847 Brandt, J.F. ("*Rhytina*"; new material, comp. w/Recent sirs.; 46-48.)
- 1848 Brandt, J.F.
- x 1848 Gistel, J. (in classification; 83.)
- 1849 Brandt, J.F.
- x 1851 Diesing, C.M. (nematode *Ascaris*; 190, 502.)
- x 1859 Baird, W. (nematode *Ascaris*; 148-149.)
- x 1861 Möbius, K. (masticating pads, comp. w/ TM; 152-153.)
- x 1861 Van Beneden, P.J. ("*Rhytina*"; m461.)
- x 1862 Beneden, P.J.v. ("*Rhytina*"; skeletons in Helsinki & Russia; 340-341.)
- 1862c Brandt, J.F.
- 1862d Brandt, J.F.
- x 1862 Goebel, A. ("*Rhytina*"; analysis of bone; 188-193.)
- 1862a Nordmann, A.v.
- 1862b Nordmann, A.v.
- 1866a Brandt, J.F.
- x 1867a Brandt, J.F. ("*Rhytina*"; syn. of *R. borealis*; m445.)
- 1867b Brandt, J.F.
- x *1867 Claudius, M. ("*Rhytina*"; ear region; 1, 6-14, pls. 1-2.)
- *1868a Brandt, J.F.
- 1868 Claudius, M.
- x 1872a Murie, J. ("*Rhytina*"; anatomy, comp. w/ TMM; 131, 135, 137, 154, 165, 167, 169-171, 173, 190-191.)
- x 1875 Anon. (pop. acc.; 295.)
- x 1875a Owen, R. ("*Rhytina*"; m104.)
- x 1876 Southwell, T. ("*Rhytina*"; gen. acc.; 57, 76-77.)
- x 1878 Brown, A.E. ("*Rhytina*"; gen. acc.; 298.)
- x 1879 Yarnall, E.H. ("*Rhytina*"; Nordenskiöld's collection; m793.)
- x 1880 Delfortrie, E. (comp. w/ *Rytiodus*; 136-137.)
- x *1881 Nordenskiöld, A.E. ("*Rhytina*"; gen. acc. & history of hunting, 272-276; post-1768 sighting reports, 276-278; collection of bones, 278, 280; food, m292.)
- 1882 Anon.
- x 1883 Anon. ("*Rhytina*"; Stejneger's collection of 11 skulls; m93.)
- x 1883 Dybowski, B. ("*Rhytina*"; sexual variation in skulls; 72-73.)
- x 1883 Stejneger, L. ("*Rhytina*"; syn. of *R. gigas*; m78.)
- x *1884 Doran, A.H.G. ("*Rhytina*"; ear ossicles; 366-370.)
- x 1884b Stejneger, L. (collection of 12 skulls & other bones; 107-108.)
- x *1885a Woodward, H. ("*Rhytina*"; skeleton; 457, 459, 470.)
- x 1891 Flower & Lydekker ("*Rhytina*"; m214, 221-222.)
- x 1894 Dawson, G.M. ("*Rhytina*"; history; 154-160.)
- x 1899 Stiles & Hassall ("*Rhytina*"; parasites; 149, 151, 171.)
- x 1914 Depéret, C. (comp. w/ *Felsinotherium*; 1859, 1861.)

- x 1925 Steller, G.W. ("*Rhytina*"; syn. of *Hydrodamalis gigas*; m139.)
- x 1928 Prater, S.H. ("*Rhytina*"; m86.)
- x 1929 Birulia, A.A. (pelvis; 87–90.)
- x 1931 Sickenberg, O. ("*Rhytina*"; pachyostosis & osteosclerosis, 410–411, 415; loss of teeth, 429.)
- x 1934 Anon. ("*Rhytina*"; supposed carcass found, British Columbia; 1011.)
- x 1942a Kaltenmark, J. ("*Rhytina*"; gen. acc.; 56–57.)
- x 1943 Kaltenmark, J. ("*Rhytina*"; phylogeny; 20–21, 24.)
- x 1951 Kleinschmidt, A. ("*Rhytina*"; syn. of *R. gigas*; m292.)
- x 1957 Carrington, R. ("*Rhytina*"; m38.)
- x *1963 Berzin et al. ("*Rhytina*"; possible recent sighting; 73–75.)
- 1964 Kazmierczak, T.
- x 1969 Chelnokov, F.G. ("*Rhytina*"; new material, Bering Is.; 71–73.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 93.)
- 1981 Mattioli, S.
- x 1981 Sprent, J.F.A. ("*Rhytina*"; m319.)
- x 1982 Kleinschmidt, A. ("*Rhytina*"; syn. of *R. gigas*; 383.)
- x 1983 Rich, V. ("*Rhytina*"; Bering Is.; discovery of skeleton; 415.)
- x 1984a Domning, D.P. (comment on V. Rich [1983]; 500.)
- Rytinadae Gray, 1843 (family; = Hydrodamalinae)
- *1843 Gray, J.E. (n.fam.)
- x 1945 Simpson, G.G. (included in Dugongidae; in classification; 135.)
- x 1978b Domning, D.P. (syn. of Hydrodamalinae; m13.)
- Rytineae Brandt, 1833 (tribe; = Hydrodamalinae)
- *1833 Brandt, J.F. (new tribe)
- x 1978b Domning, D.P. (syn. of Hydrodamalinae; m13.)
- Rytinidae Girard, 1852 (family; = Hydrodamalinae)
- *1852 Girard, C. (n.fam.)
- x 1872a Gill, T. ("*Rhytinidae*"; in classification; 91–92.)
- x 1872b Gill, T. (m301.)
- x 1873 Gill, T. (phylogeny; 273.)
- x 1895 Palmer, T.S. (syn. of Hydrodamalidae; 449–450.)
- x 1978b Domning, D.P. (syn. of Hydrodamalinae; m13.)
- Rytirodinae Abel, 1914 (subfamily; = Dugonginae)
- *1914 Abel, O. (new subfamily)
- x 1945 Simpson, G.G. (in classification; 135.)
- 1960 Kaiser, H.E.
- x 1989c Domning, D.P. (syn. of Rytiodontinae; 417.)
- Rytiodontinae Abel, 1914 (subfamily; justified emendation of Rytiodinae Abel; = Dugonginae.)
- x *1941 Kretzoi, M. (emendation of Rytiodinae Abel; in classification; 155.)
- x 1989c Domning, D.P. (considered "correct original spelling" of name; 417.)
- *1994b Domning, D.P. (included within Dugonginae)
- Rytirodus* Lartet, 1866 (Spelled *Rhytirodus* by Delfortrie, 1872, and many later authors; this is an unjustified emendation.)
- x *1866 Lartet, E. (n.gen.; 673–686, pl. 13.)
- *1872 Delfortrie, E. ("*Rhytirodus*")
- x 1875a Owen, R. (m104.)
- x 1875b Owen, R. (comp. w/ *Prorastomus*; m565.)
- x *1880 Delfortrie, E. (skull; 131–144, pls. 5–8.)
- x 1884 Gaudry, A. ("*Rhytirodus*"; comp. w/ *Halitherium Chouqueti*; 375.)
- x 1887 Flot, L. (review; 137–138.)
- x 1891 Flower & Lydekker (anatomy; 223–224.)
- x 1906 Abel, O. ("*Rhytirodus*"; dentition; 51–52.)
- x 1914 Depéret, C. ("*Rhytirodus*"; m1859.)
- x 1926 Sanielevici, H. ("*Rhytirodus*"; diet & tooth morphology; 254.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 423–424, 451, 480–481, 495, 499.)
- x 1941 Kretzoi, M. (in classification; 154–155.)
- x 1945 Simpson, G.G. (in classification; 135, 251.)
- xv 1975 Savage, R.J.G. ("flat-tusked dugongid"; Libya; m824.)
- x 1978b Domning, D.P. (comp. w/ *Dioplotherium* & *Dusisiren*; 11–12, 14, 73.)
- x 1978c Domning, D.P. (phyletic position & occurrence in Africa; 574, 577, 579.)
- x 1982 Kleinschmidt, A. (m378–380.)
- x 1989c Domning, D.P. (comp. w/ *Dioplotherium*; 417, 424–426.)
- x 1989d Domning, D.P. (comp. w/ *Xenosiren yucateca*; 434–436.)
- x 1991 Toledo & Domning (cf. *Rytirodus*; Early Mioc., Brazil; 121–122, 130–137, 141–145.)
- Rytirodus capgrandi* Lartet, 1866
- x *1866 Lartet, E. (n.gen.n.sp.; 673–686, pl. 13.)
- x *1880 Delfortrie, E. (skull; 131–144, pls. 5–8.)
- x 1885a Woodward, H. ("*Rhytirodus*"; m470.)
- x 1925 Kellogg, R. (comp. w/ *Metaxytherium jordani*; 60.)
- x 1931 Sickenberg, O. ("*Rhytirodus*"; pachyostosis & osteosclerosis; 409.)
- x 1942b Kaltenmark, J. ("*Rhytirodus*"; m104–105.)
- x 1943 Heuvelmans, B. ("*Rhytirodus*"; m13.)
- x 1943 Kaltenmark, J. ("*Rhytirodus*"; m23.)
- 1944 Abel, O.
- x 1966 Kellogg, R. (comp. w/ *Hemicaulodon*, 78; w/ *Dioplotherium*, 91–92.)
- x 1978c Domning, D.P. (m577.)
- *1987 Pilleri, G.

- x 1990b Domning, D.P. (comp. w/*Corystosiren varguezii*; 362, 367-369.)
- x 1991 Toledo & Domning (comp. w/ cf. *Rytiodus* from Brazil; 122, 133.)
- St. Helena
- 1679 SEE Kitching, G.C., 1936.
- 1703-
- 1705 Dampier, W.
- 1817 Leech, T.
- 1843 Henry, W.
- 1880 Janisch
- 1899 Lydekker, R.
- 1933a Mortensen, T.
- x 1934 Hatt, R.T. (occurrence of "manatees"; 560.)
- x 1934a Mortensen, T. ("manatee" a sea lion; 417.)
- x *1936 Kitching, G.C. (early records of "manatees"; 33-34.)
- Sakhalin
- x 1870 Adams, A. (specimen of ?DD; 198.)
- x 1923 Sowerby, A. de C. ("dugong" of Adams [1870] probably *Hydrodamalis*; 136-137.)
- D 1928 Anon.
- xD *1937a Nagao, T. (*Desmostylus minor*, n.sp.; Mioc.; 46-49.)
- xD 1937c Nagao, T. (*Desmostylus* spp.; 110-113.)
- xD 1963 Mitchell & Repenning (*Desmostylus*; 10, 15.)
- D 1966a Shikama, T.
- D 1969 Mel'nikov & Shustov
- x 1978b Domning, D.P. (specimen of Adams [1870] probably DD; 136, 138.)
- Salinity Tolerance (SEE ALSO: Behavior, Ingestive)
- 1703-
- 1705 Dampier, W. (*Trichechus*; need fresh water)
- x 1843 Backhouse, J. (DD; Australia; ascend "narrow creeks"; 368-369.)
- x 1861 Du Chaillu, P.B. (TS; prefer fresh water; 367.)
- x 1899 Steller, G.W. (HG; like fresh water; 197.)
- x *1906b Dexler & Freund (DD; 49-50.)
- x 1908b Gudernatsch, J.F. (TML; ?prefer brackish water; 229.)
- x 1924-
- 1925 Vosseler, J. (*Trichechus*; in capt.; 129.)
- x 1935 Barrett, O.W. (TMM; Central America; dislike salt water; 216.)
- x 1942 Morison, S.E. (TMM; Cuba; use of freshwater springs; 459.)
- x 1948 Bessac & Villiers (TS; ?unable to enter fresh water if born in salt water; migration affected by salinity; drinking fresh water; 188.)
- x 1951 Bourlière, F. (TM euryhalic; 194.)
- x 1951a Moore, J.C. (TML; Florida; dispersal down Keys ?limited by lack of fresh water; 5.)
- x 1951b Moore, J.C. (TML; Florida Everglades; 25-26.)
- x 1956 Tomkins, I.R. (TML in salt water; 289.)
- x *1958 Leakey, L.S.B. (DD; East Africa; in rivers; 19-20.)
- x 1961 Jonklaas, R. (DD; m2.)
- x 1964a Bertram & Bertram (*Trichechus*; m115-116.)
- x 1965 Lluch B., D. (TMM; not affected by salinity; 411-412.)
- x 1966 Kinzer, J. (salinity of West African coastal lagoons; 47.)
- x 1966 Thomas, D. (DD; in capt., India; kept in brackish water; 81.)
- x *1967 Aung, S.H. (DD; Burma; 221.)
- x 1967 Jones, S. (DD; India; 217.)
- x 1968 Charnock-Wilson, J. (*Trichechus*; m293.)
- x *1974a Hartman, D.S. (TML; Florida; ?need fresh water; 37-41.)
- x 1978 Irvine & Campbell (TML; Florida; distr. in fresh & salt water; 615-616.)
- x 1978 Mitchell, J. (DD; seasonal salinity changes & tooth banding; 342.)
- x 1978 Odell et al. (TM; Bahamas; ?restricted by fresh water availability; 293.)
- x 1979 Anderson, P.K. (DD; no need for fresh water, 132; calving in hypersaline areas, 133; tolerances, 133-134.)
- x 1979 Bengtson & Magor (TMM; Belize; 230-232.)
- x 1979 Hartman, D.S. (TML; Florida; habitat preferences, 38-39; ?need fresh water, 58-59.)
- x 1980 Belitsky & Belitsky (TMM; Dominican Republic; near freshwater upwellings; 317.)
- x *1980 Irvine et al. (TML; possible concentrating of urine; 3.)
- x 1981 Powell et al. (TMM; Puerto Rico; occurrence in & drinking of fresh water; 642, 644.)
- x 1982 Irvine et al. (TML; western Florida; distr. with respect to salinity; 626, 628-629.)
- x 1982 Medway, Bruss et al. (TML; Florida; blood serum osmolality; 231-232.)
- x 1983a Kinnaird, M.F. (TML; northeastern Florida; distr. with respect to salinity; 44.)
- x 1983 Shane, S.H. (TML; Florida; drinking fresh water; 43-44.)
- x 1984 Marsh, Heinsohn & Marsh (DD; ?water-balance stress of lactation; 783.)
- x 1984 Powell & Rathbun (TML; northwestern Florida; ?need fresh water; 23-24.)
- x *1984 Reynolds & Ferguson (TM; implications of occurrence in Dry Tortugas; 187-189.)
- x 1984 Snipes, R.L. (TM; suggests large intestine important in water balance; m76.)
- x 1989 Hill & Reynolds (TML; kidney structure & osmoregulatory ability; 53-56.)

- x 1989 Lefebvre et al. (TM; effects on biogeography; 590-591.)
- x 1989 Maluf, N.S.R. (TML; kidney structure & osmoregulatory ability; 282, 284.)
- x 1989a Preen, A. (DD; Arabian region; 118, 121, 127.)
- Satellite Tracking: SEE Tagging Methods and Recognition
- Sense Organs (SEE ALSO: Behavior, Investigative, and Sense Perception; Brain and Nervous System; Digestive System; Skeleton; Sound Production)
- x *1809a Cuvier, G. (*Trichechus*; ear bones; 287-289, pl. 19.)
- x 1820a Home, E. (DD; ear apparatus; 149-153.)
- x 1820b Home, E. (DD; tongue, 316; olfactory nerve, eye, 321.)
- 1844 Hyrtl, J. (ear)
- x 1857 Rapp, W.v. (TML; ear ossicles, 96-97, pl. 3; eye, 97-98.)
- x *1867 Claudius, M. (HG, etc.; ear region; 1-14, pls. 1-2.)
- 1868 Claudius, M. (ear)
- 1868 Owen, R. (smell)
- x *1872a Murie, J. (TMM; nasal region, 186-187; eye, 187-188; ear, 188.)
- 1878 Doran, A.H.G. (ear)
- x 1880 Murie, J. (TMM; eye; 24-25.)
- x *1884 Doran, A.H.G. (ear ossicles; 366-370.)
- x 1885a Woodward, H. (ear ossicles; 461-462.)
- x *1892 Tuckerman, F. (*Trichechus*; tongue; 77.)
- x 1897 Broom, R. (Jacobson's organ & sir. affinities; m252.)
- x 1899 Steller, G.W. (HG; eyes, ears; 187, 199.)
- *1903 Pütter, A. (eye)
- 1903 Schoenichen, W. (eye)
- x 1906 Annandale, N. (dugong tears; 241.)
- x *1906b Dexler & Freund (DD, *Trichechus*; taste, 59; smell, 59-60; eyes, 60-64; ears, 64.)
- 1908 Beyer, H. (ear)
- x 1908b Gudernatsch, J.F. (TML; eye; protective secretion, reflex; 227-228.)
- x 1912a Matthes, E. (ear apparatus; 597-599.)
- x 1915 Broom, R. (Jacobson's organ & sir. affinities; m162.)
- x 1915 Seale, A. (DD; eyes "turning to flesh" when exposed to air; 215.)
- x 1922 Sonntag, C.F. (tongue; 646-647, 654-655.)
- x 1923 Petit, G. (dugong tears; 77.)
- x 1924-
- 1925 Vosseler, J. (possible chemical-sensory fields, 219-220; appearance of eye, 220.)
- x 1928 Prater, S.H. (dugong tears; 94-95.)
- x *1929 Petit & Rochon-Duvigneaud (DD; eye, 129-138; hearing, smell, taste, touch, 130-132.)
- 1931 Klaauw, C.J. van der (ear)
- 1931 Schneider, K.M. (Flehenen)
- *1934 Genschow, J. (olfactory organs)
- x 1953 Quiring & Harlan (TML; eye weight; 194.)
- x 1955a Anon. (dugong tears; 79.)
- x 1956 Harry, R.R. (dugong tears; 27.)
- x 1957 Gohar, H.A.F. (DD; snout bristles; 12-15.)
- x 1963 Fenart, R. (DD; ear vestibules & ossicles; 92-94.)
- 1964 Harrison & Tomlinson (TM; auditory meatus)
- x 1964 Norris, K.S. (*Trichechus*; possible use of mandibular canal as wave guide in echolocation; 334.)
- x *1965 Robineau, D. (HG, etc.; ear ossicles; 412-424.)
- x 1967 Jones, S. (dugong tears; 218.)
- 1967 Walls, G.L. (eye)
- 1968 Girard-Sauveur & Miloche (TS; ear ossicles)
- x *1969 Robineau, D. (ear apparatus; 2, 8-13, 15-20, 22-31.)
- x *1971 Fleischer, G. (DD; ear apparatus; 351-359.)
- x 1972 Verhaart, W.J.C. (*Trichechus*; development of brain sensory regions; 288-289.)
- *1973 Fleischer, G. (ear)
- x *1976 Fleischer, G. (anchoring of stapes; 304-317.)
- x 1977a Domning, D.P. (DD; external ear muscles; 26-27.)
- x 1978b Domning, D.P. (hydrodamalines; ear adaptations; 132.)
- 1978 Fleischer, G. (middle ear)
- x 1980 Bullock et al. (TI; auditory evoked potentials & hearing organs; ?role of zygomatic process; 130-133.)
- x 1980 Lowell & Flanigan (chemoreception; 56-57.)
- x 1981 Kamiya & Yamasaki (DD; sinus hair; 193-197.)
- x 1981 Yamasaki et al. (DD; taste buds; 185-187, 190-191.)
- x 1982 Bullock et al. (TML; auditory evoked potentials; 547-554.)
- x *1982 Cohen et al. (TML; photoreceptors; 197-202.)
- x 1982 Kleinschmidt, A. (HG, DD, TM; ear bones; 399-403.)
- x *1983 Piggins et al. (TI; eye morphology & vision; 111-129.)
- x 1985 Mackay-Sim et al. (TML lacks vomeronasal organ but has olfactory epithelium; 186-194.)
- x 1985 Pirlot & Kamiya (DD; importance of sinus hairs; 154.)
- 1986 Andreev, F.V. (TM; eye)
- x *1988 Fischer, M.S. (TM; ear; 365-379.)
- x 1989a Marsh, H. (dugong tears; 79.)
- x 1990 Court, N. (*Prorastomus*; ear; 175-179.)
- x 1991 Court & Jaeger (*Prorastomus*, *Trichechus*; inner ear; 559-565.)
- 1991 Fischer, M.S. (ear)
- 1991 West et al. (TM; eye)
- x *1992 Ketten et al. (TML; ear, 77-95; chorda tympani, 84, 92.)

Sense Perception: SEE Behavior, Investigative, and Sense Perception

Sirenavus Kretzoi, 1941

- x *1941 Kretzoi, M. (n.gen.; 146–149, 151, 153–154.)
- 1944 Mottl, M.
- x 1951 Reinhart, R.H. (m209, 211.)
- x 1970 Fuchs, H. (comp. w/ *Halitherium*; 1187.)
- x 1978c Domning, D.P. (phyletic position; 574, 579.)
- x 1982 Kleinschmidt, A. (m378.)
- x 1982 Sereno, P.C. (m7–8.)
- 1983 Kordos, L.

Sirenavus hungaricus Kretzoi, 1941

- x *1941 Kretzoi, M. (n.gen.n.sp.; 146–149, 156, pl. 6.)
- x 1951 Kretzoi, M. (m439, m441.)
- x 1953 Kretzoi, M. (m273, 274.)
- x 1977 Kordos, L. (ribs of holotype lost; 365.)
- x 1980 Kordos, L. (comp. w/ Hungarian *Eotheroides*; 385, 387–389, 396–397.)
- *1981 Kordos, L.
- x 1982 Domning, Morgan & Ray (comp. w/ other Eoc. sirs.; 5, 35, 55, 61.)

Sirene Link, 1794 (= *Hydrodamalis*)

- *1794–
- 1795 Link, H.F. (n.gen.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis*; 75.)

Sirene borealis (Gmelin, 1788) Link, 1794 (= *Hydrodamalis gigas*)

- *1794–
- 1795 Link, H.F. (n.comb.)
- x 1925 ICZN (syn. of *Hydrodamalis gigas*; 38.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 93.)

Sirenia Illiger, 1811 (proposed as family; raised to ordinal rank by Goldfuss, 1820?)

- x *1811 Illiger, C. (name introduced, at family rank; in classification; 140.)
- *1820 Goldfuss, G.A.
- x 1872b Gill, T. (diagnosis; 300–301.)

Sireniformia Burmeister, 1837 (family; = *Sirenia*)

- x *1837 Burmeister, H. (n.fam.; in classification; 792.)

Sirenotherium de Paula Couto, 1967

- x *1967 Paula Couto, C. de (n.gen.; Early Mioc., Brazil; 346–356.)
- x 1978c Domning, D.P. (in phylogeny; 579.)
- x 1980 McKenna, M.C. (comp. w/ *Florentinoameghinia*; 66.)

Sirenotherium pirabense de Paula Couto, 1967

- x *1967 Paula Couto, C. de ("*S. pirabensis*," n.gen.n.sp.;

Early Mioc., Brazil; 346–356.)

- x 1982b Domning, D.P. (referred to *Trichechidae* or *Dugongidae incertae sedis*; 600, 606, 612.)
- x 1986 Frailey, C.D. (comp. w/ *Ribodon*; 34.)
- 1989 Lima, M.R. de (considered *Sirenia incertae sedis*)
- x *1989 Toledo, P.M. de (new specimens referred; 5–10.)
- x 1991 Toledo & Domning (considered nomen dubium; 120–121.)

Skeleton (SEE ALSO: Age Determination; Embryology and Ontogeny; Histology; Myology; Sense Organs; Tooth Replacement; and under species)

- x 1804 Wiedemann, C.R.W. (TM; skull; 67–76.)
- x *1809a Cuvier, G. (TI, 285–293, pl. 19; TS, 295–296, pl. 19; fossil sirs., 305–308, pl. 19.)
- x 1820a Home, E. (DD; tusks, 146–149, 153, pls. 12–14; ear, 149–153; lower incisors, 153–154, pl. 14.)
- x 1820b Home, E. (DD; cribriform plate, 321; postcranial skeleton, 321–322, pl. 31.)
- x 1820 Raffles, T.S. (DD; teeth, 175–176; bones, 178–179.)
- x 1821a Home, E. (DD; Sumatra; 268–270, pl. 20.)
- x 1821b Home, E. (TMM; Jamaica; 390–391, pl. 27.)
- 1829 Knox, R. (DD)
- 1831 Knox, R. (DD)
- x 1834 Rüppell, E. (DD; gen. acc.; 104, 107–112, pl. 6.)
- 1836a Robert, C. (TS; skeleton)
- x 1836b Robert, C. (TS; 363.)
- x *1838 Owen, R. (DD; ossification of throat cartilages, m37; bones, 40–41; teeth, 41–44.)
- x *1847 Bischoff, T.L.W. (DD; teeth, 2; postcranial skeleton, 2–3; hyoid, 3–6, pl. 1.)
- x 1847 Brandt, J.F. (HG; new material, comp. w/ living sirs.; 47–48.)
- 1847 Owen, R. (DD; skeleton)
- x 1850 Kneeland, S., Jr. (*Trichechus*; affinities; 42–47.)
- x 1850 Wyman, J. (TS; skull; 46–47.)
- x 1855a Gervais, P. (TI; gen. acc.; 114–115.)
- x 1857 Jäger, G. (TMM, Suriname, skull & skeleton, 91–98, pl. 6; DD, skull, 98–99, pl. 6.)
- 1858 Kaup, J.J. (*Halitherium schinzii*; pelvis, femur)
- 1858b Krauss, C.F.F. (*Halitherium*; skull)
- x 1861 Möbius, K. (TMM; Belize; masticating pads, 148–156, pl. 7; skull measurements, 154–155.)
- 1862a Brandt, J.F.
- 1862b Brandt, J.F.
- 1862d Brandt, J.F.
- 1862 Bronn, H.G. (*Halitherium*)
- x 1862 Goebel, A. (HG; chemical analysis of bone; 188–193.)
- *1862a Krauss, C.F.F. (*Trichechus*; osteology)
- *1862a Nordmann, A.v. (HG; skeleton)
- 1862b Nordmann, A.v. (HG)
- 1863a Brandt, J.F.
- 1863b Brandt, J.F.

- 1863d Brandt, J.F.
 1863e Brandt, J.F.
 1863 Cleland, J. (vomer, ethmoid, premaxilla)
 x 1863 McBain, J. (TS, TMM; skulls; 261-267.)
 1864 Flower, W.H. (cervical vertebrae)
 x 1865 Gray, J.E. (TS, TM; 130-138.)
 1867d Brandt, J.F.
 x *1867 Claudius, M. (HG, etc.; ear region; 6-14, pls. 1-2.)
 *1870 Krauss, C.F.F. (DD)
 1872 Krauss, C.F.F. (TMM; pelvis)
 x *1872a Murie, J. (TMM; bones & ligaments; 135-143, 179, 186-188.)
 1875 Weyhe (pelvis)
 x 1876 Chapman, H.C. (TMM; cervical vertebrae; m453.)
 x 1879 Yarnall, E.H. (HG; Nordenskiöld's collection; m793.)
 x 1880 Cope, E.D. (DD, *Trichechus*; squamosal foramina; 456.)
 x 1880 Murie, J. (TMM; sternum; 44, pl. 8.)
 x 1881 Crane, A. (TMM; development in young specimen; 459.)
 1883 Albrecht, P. (vertebral epiphyses)
 x 1883 Anon. (HG; Stejneger's collection of 11 skulls; m93.)
 x 1883 Dybowski, B. (HG; skull; sexual variation; 73.)
 x *1883 Stejneger, L. (HG; collection, 59, 61-62; sexual variation, 78-83; tail, 86; specimens at Irkutsk destroyed, 84.)
 x *1884 Doran, A.H.G. (ear ossicles; 366-370.)
 x 1884b Stejneger, L. (HG; collecting of 12 skulls & other bones; 107-108.)
 x 1885b Nordenskiöld, A.E. (HG bones in various museums; 284-285.)
 x 1885 Stejneger, L. (HG; excavation of weathered skeleton; 256-257.)
 x *1885a Woodward, H. (HG; 457-464.)
 *1886a Hartlaub, C. (*Trichechus*; variation)
 x 1887b Baur, G. (hyperphalangy; 840.)
 x 1887 Ward, H.L. (DD; vertebrae & pelvis; 536.)
 1888 Slade, D.D. (cranial vacuities)
 x 1889 Clark, J.W. (HG; skeleton at Harvard; 342.)
 1889a Cope, E.D.
 1889b Leboucq, H. (manus)
 1891 Kükenthal, W. (fusion of epiphyses; hyperphalangy)
 1892 Dollo, L. (ribs)
 x 1893 Holder, C.F. (HG; skeleton at California Academy of Science; m236.)
 x 1893 Howes & Harrison (DD; vertebrae, phalanges, teeth; 790.)
 x 1894 Miller, W.D. (TS; dental caries; 15-18.)
 x 1894 Zaaijer, T. (DD; cranial sutures; m340.)
 x 1896 Kükenthal, W. (TM; embryonic dentition; 513-526.)
 x 1896 Leboucq, H. (hyperphalangy; m174.)
 1897 Sabatier, A. (chevron bones)
 *1897a Thomas & Lydekker (*Trichechus*; dentition)
 1897b Thomas & Lydekker (*Trichechus*; dentition)
 1897 Tredgold, A.F. (ribs)
 1898 Anderson, R.J. (DD, *Trichechus*; manus; 765-767.)
 x *1899 Steller, G.W. (HG; 188, 190, 195-196.)
 x 1901 Broom, R. (*Trichechus*; ossification of caudal vertebrae; m739.)
 1902 Anderson, R.J. (premaxilla)
 1902 Sabatier, A. (vertebrae, sternum)
 1902 Stromer, E.
 1903 Van Oort, E.D. (*Halitherium*)
 x 1904 Eggeling, H. (DD, *Trichechus*; sternum; 99.)
 x *1904 Freund, L. (DD, etc.; manus; 363, 397, pls. 14-15.)
 x *1904a Lorenz, L.v. (Recent sirs.; pelvis; 1-11, pl. 1.)
 1904b Lorenz, L.v. (pelvis)
 1905 Freund, L. (DD; sternum)
 x 1905 Toldt, C. (angular process of mandible; 337.)
 x 1906b Dexler & Freund (DD; tusks, 56, 65; exethmoids, 59-60.)
 1907c Abel, O. (pelvis)
 x 1907 Annandale, N. (DD; pelvis, 79; manus, 79-80.)
 x 1908 Anderson, R.J. (DD, *Trichechus*; parietal; 547.)
 *1908a Freund, L. (DD; skull)
 x 1908b Freund, L. (DD; nasal region, bones & cartilages; 254-256.)
 x 1908 Fuchs, H. (vertebral epiphyses; m353.)
 x 1909 Anderson, R.J. (*Trichechus*; maxillae; 745.)
 x 1911 Anon. (HG; photo of skull; 37.)
 1911 Lefevre (*Halitherium*)
 xD 1911 Merriam, J.C. (*Desmostylus*; 407-412.)
 1911 Schmidtgen, O. (*Halitherium schinzii*; scapula)
 x 1912b Dexler, H. (DD; braincase; 100.)
 1912b Matthes, E. (TML; ethmoid region)
 1912 Schmidtgen, O. (*Halitherium schinzii*; hindlimb)
 1912 Stapley, W. (cervical ribs)
 1912 Turner, W.
 x *1914a Freund, L. (embryology; 354-386, pl. 16.)
 1914b Freund, L. (embryology)
 x 1919 Hanson, F.B. (*Trichechus*; ontogeny & phylogeny of sternum; 81, 111.)
 1919 Hogben, L.T. (jugal)
 x 1921 Marcus, H. (TS; jaws, teeth, tooth replacement; 574-586, pls. 18-19.)
 1921b Matthes, E. (skull)
 1921c Matthes, E. (DD; skull)
 1921d Matthes, E. (DD; skull)
 1921a Stromer, E. (hip region)
 1921b Stromer, E. (hip region)
 1923 Loth, E. (cervicals; vertebral canals)
 x *1923 Nopcsa, F.v. (pachyostosis & osteosclerosis; 353-359.)
 1923 Stromer, E. (pachyostosis)
 xD 1924 Hay, O.P. (*Desmostylus hesperus*; skull; 7-8.)

- x 1925 Troxell, E.L. (chevron bones; m613.)
 1928a Petit, G. (cervical vertebrae)
- x 1928b Petit, G. (TS, fusion of cervical vertebrae, 429-431; *Halitherium schinzii*, m431.)
- x 1929 Birulia, A. (HG; pelvis; 87-90.)
 1930 Pales, L. (pathology)
- D 1930 Salomon, M.I. (lacrimal)
 1931 Loth, E. (fractures)
- x 1931 Sickenberg, O. (pachyostosis & osteosclerosis, 407-412; epiphyseal fusion, 412-417; other changes, 427-431.)
- x 1932 Korschelt, E. (DD, rib fractures, 450; *Trichechus*, lesion on radius, 451.)
 1932 Kuntze, R. (HG; skeleton at Lvov)
- *1933 Bahrtdt, H.J.
 1934 Frechkop, S. (DD; skull & dentition)
- x *1934 Hatt, R.T. (*Trichechus*; variation; 539-554, 561.)
 1934 Nopcsa & Heidsieck (pachyostotic rib)
- x 1935 Barrett, O.W. (TMM; cartilaginous ?"baculum"; 219.)
 1936 Hirschfelder, H. (*Trichechus*; cranial ontogeny)
 1936 Neumann, D. (*Halitherium schinzii*; manus)
 1937 De Beer, G.R. (skull development)
 1938 Rueger, J. (cervical vertebrae 1-2)
 1938 Todd & Todd (epiphyses)
- x 1939 Lyman, C.P. (DD; vestigial lower incisor; 229-231.)
 1940 Loth, E. (fractures)
- x *1940 Pocock, R.I. (DD; tusks, teeth, skulls, scapulae; 329-345.)
- x *1941a Heuvelmans, B. (*Trichechus*; dentition; 1-15.)
 D 1941 Nagao, T. (*Desmostylus*)
- x *1942b Fawcett, D.W. (*Trichechus*; pachyostosis; histology & hypothyroidism; 271-285, 287-303, 308-309.)
- x 1942a Kaltenmark, J. (TS, etc.; 56-64.)
- x 1943 Heuvelmans, B. (evolution of dentition; 4-13.)
- x 1943 Kaltenmark, J. (fronto-nasal relationship; 14-24.)
- x 1944 Pereira, M.N. (TI; skull & dentition; vestigial incisors; 42-43.)
- x 1946 Slijper, E.J. (spinal column; 42-43, 72, 78, 111-112, 114, tabs. 3, 5.)
 1947 Amprino & Godina (histology)
- x *1951 Kleinschmidt, A. (HG; extant skeletons, bone measurements, body reconstruction; 294-312.)
- x 1951a Moore, J.C. (TML, TMM; proportions of foramen magnum; 17-18.)
- x 1951 Wegner, R.N. (mandibular dental capsule; 76-81.)
- x *1953 Fernand, V.S.V. (DD; teeth; 139-147, pls. 28-30.)
- x 1953 Quiring & Harlan (TML; gen. acc.; 194-200.)
 1955 Tucker, R.
- x 1957 Gohar, H.A.F. (DD; mandibular symphysis & vestigial lower incisor alveoli; 20-23, 38-39.)
- D 1961 Ijiri & Kamei (*Desmostylus*, *Paleoparadoxia*; skulls)
- x 1962 Schäfer, W. (decay & disintegration; 53-56.)
- x 1963 Fenart, R. (DD; vestibular orientation of skull; 92-98.)
- xD 1963 Mitchell, E.D., Jr. (desmostylians; pachyostosis; 196-197.)
- x *1964 Johnson, D.H. (DD; Arnhem Land, Australia; skull measurements; 507.)
- xD 1964 Mitchell, E.D., Jr. (desmostylians; pachyostosis; 214.)
- D *1966c Shikama, T.
 1967 Poole, D.F.G. (dental tissues)
- x 1968a Kaiser, H.E. (occipital region; gross morphology; 478.)
- xD 1968 Shikama, T. (*Paleoparadoxia*; 21-26, pls. 3-6.)
- x 1969 Chelnokov, F.G. (HG; bones; 72-73.)
- x *1969 Robineau, D. (temporal & ear region; 2-31.)
- x 1970 Scheffer, V.B. (DD; teeth; growth layers; 187-190.)
- x 1971 Fleischer, G. (DD; ear apparatus; 351-353, 355-359.)
- x 1972 Scheffer, V.B. (HG; body size & weight; 912-913.)
 1973 Fleischer, G.
- D 1973 Kobayashi & Kamei
- x *1973 Mitchell, J. (DD; skull & teeth; age determination, 1-23; sexual dimorphism, 14, 16-21.)
- x *1974 James, P.S.B.R. (DD; India; variation; 173-184.)
 *1974 Kaiser, H.E. (macroscopic & x-ray atlas)
- x *1974 Spain & Heinsohn (DD; cranial allometry; 249-257.)
- x 1975 Domning & Frye (*Metaxytherium jordani*, *Hydrodamalis cuestae*; pathology; 1-4, pls. 1-2.)
- x 1976 Allen et al. (DD; Sulawesi; 18-19 ribs, 41; tusks, 44; skeletal weight, 46.)
- x 1976 Fleischer, G. (anchoring of stapes; 304-317.)
- x 1976 Mitchell, J. (DD; growth layers in tusks; 25-28.)
 1976 Reinhart, R.H. (DD; incisor anomalies)
- x *1976 Spain et al. (DD; Australia; cranial variation; 491-497.)
 1977 Versaggi, C.S. (bone structure & function)
- x 1977 Whitmore & Gard (HG; illustrations & measurements; 9-18, pls. 1-8.)
- x 1978 Husson, A.M. (TMM; Suriname; skull measurements; 337-338.)
- x 1978 Kasuya & Nishiwaki (DD; tusks & age determination; 301-310, 4 pls.)
- x 1978 Lande, R. (evolutionary rate of limb loss; 74.)
- x *1978 Mitchell, J. (DD; dentition & age determination; 317-348.)
- x 1979 Cave, A.J.E. (DD, *Trichechus*; pterygoid hamulus; 530-531.)
- x *1980 Marsh, H. (DD; dentition & age determination; 181-201.)
- x 1981 Domning & Myrick (TI; tetracycline marking of rib; 203-207.)

- x 1981 Marsh & Kasuya (DD; tusks from lower latitudes have more accessory growth layers; 357–361.)
- x 1981 Mitchell, J. (DD; Queensland; growth layers in tusks; 99–109.)
- x 1981a Spain & Marsh (DD; Australia; cranial variation; 143–161.)
- x *1981b Spain & Marsh (DD; standard skull measurements; 286–301.)
- x 1982 Kleinschmidt, A. (HG, etc.; in collections, 368–370; proportions, 375; bone density, 387–389; pelvis, 390–392; skull, 392–403.)
- x 1982 Olsen, S.J. (TM; identification in archeological sites; 8, 41–42, 54, 56–57, 62, 66, 70, 75, 90.)
- x 1983 Kleinschmidt, A. (HG; in collections; 763.)
- x 1983 Rich, V. (HG; Bering Is.; discovery of skeleton; 415.)
- x 1984a Domning, D.P. (HG; comment on V. Rich [1983]; 500.)
- x 1984b Kozawa, Y. (tooth enamel prisms; 438–440.)
- 1984 Manzij & Piliptshuk (TM)
- xD 1985 Fortelius, M. (functional anatomy of cheek teeth; *Trichechus*, 11, 52–53, 65, 73; DD, 11; *Desmostylus*, 57.)
- x 1985 Mackay-Sim et al. (TML; absence of nasopalatine ducts; 187–189.)
- x 1985 Thewissen, J.G.M. (cranial foramina; 268–269, 271–273, 279.)
- x 1986 Bazzini et al. (TML; amedullary bones & sites of hemopoiesis; 150–152.)
- x *1986 Domning & Hayek (*Trichechus*; variation; 87–144.)
- 1986 Sukhanov & Manzij (TM)
- 1986 Sukhanov et al. (TM; forelimb)
- x 1986 Watson & Bonde (TM; ectrodactyly & cleft hand; 294–301.)
- x 1988 Flannery, T. (HG; skeleton in Australian Museum, Sydney; 462.)
- x 1988 Nojima, T. (DD, *Trichechus*; bony falx cerebri; 315, 320.)
- *1988d Pilleri, G.
- x *1989 Buffrénil & Schoevaert (DD; pachyostosis; 2107–2119.)
- x 1989a Preen, A. (DD; Arabian Gulf; skull measurements; 54, 70–71, 172–174.)
- x 1990 Buffrénil et al. (pachyostosis, comp. w/ archaeocetes; 455, 463–465.)
- x 1990 O'Shea & Reep (TML; body size & fusion of cranial sutures; 539–540.)
- x *1991 Domning & de Buffrénil (distr. of mass; hydrostatic adaptations; 331–368.)
- x 1991a Domning, D.P. (DD; pelvic bones; sexual & ontogenetic variation; 311–316.)
- x 1991 Frazier & Mundkur (DD; number of phalanges; 373–374.)
- x 1991 Joeckel, R.M. (TM; mandibular proportions; 463.)
- x 1992 Ketten et al. (TML; ear region; 77–95.)
- 1992 Miyake et al. (rostral cartilages)
- x 1992 Roth, V.L. (TI; variation in tooth size, comp. w/elephants; 194–195, 197.)
- Sonar Detection of Sirenians
- x 1982 Fletemeyer, J. (TML; Florida; pop. acc.; 296–299.)
- x *1983b Kinnaird, M.F. (TML; Florida; experiments; 9–12.)
- Sound Production
- x 1820b Home, E. (DD; laryngeal cartilages; 319.)
- x 1820 Raffles, T.S. (DD; 181.)
- x 1834 Rüppell, E. (DD; Red Sea; 113.)
- x 1873 Conklin, W.A. (*Trichechus*; in capt.; 166.)
- x 1889 Scammon, C.M. (TML; in capt.; 581–582.)
- x 1891 Flower & Lydekker (*Trichechus*; in capt.; no sounds produced; 219.)
- x *1906b Dexler & Freund (DD, 54, 58–59; HG, *Trichechus*, 59.)
- x 1923 Petit, G. (DD; 76.)
- x 1935 Barrett, O.W. (TMM; Central America; grazing, 217; breathing, 218.)
- x 1936 Lopes, A.P. (DD; Mozambique; said to “cry out”; 30, 35.)
- x *1937 Barbour, T. (TML; Florida; in late pregnancy; 107.)
- x 1944 Pereira, M.N. (TI; in late pregnancy; 60.)
- x 1947 Harwood, K. (TM; in capt.; “bellow” when hungry; 50.)
- x 1954 Gunter, G. (TML; Florida; 545.)
- x 1954 Lawrence, J.E. (TML; Florida; pop. acc.; 403.)
- x *1955 Kellogg, W.N. (TML; Florida; phonograph record of vocalizations.)
- x 1956b Anon. (TMM; Puerto Rico; 39.)
- x 1961 Jonklaas, R. (DD; 6.)
- 1963 Brandt, O.
- 1963 Busnel, R.
- x 1963 Pfeffer, P. (DD; 149.)
- 1963 Tembrock, G.
- x 1964a Bertram & Bertram (*Trichechus*; 118.)
- x *1965 Schevill & Watkins (TML; Florida; 373–374.)
- 1967 Evans, W.E. (TML; vocalizations)
- x 1967 Jones, S. (DD; no sounds produced; 219.)
- x 1967 Welsby, T. (female DD; Moreton Bay, Queensland; 2: 235.)
- x 1968 Charnock-Wilson, J. (*Trichechus*; m294.)
- 1969 Evans & Bastian
- x 1969 Hartman, D.S. (TML; Florida; 346, 348, 350.)
- x 1969 Herald, E.S. (TI; in capt.; sounds different from those of TML; m30.)
- x *1970 Evans & Herald (TI; in capt.; 820–823.)
- x 1971 Kingdon, J. (DD; East Africa; “whistling”; 397.)
- x *1973 Sonoda & Takemura (TMM, TI; in capt.; vocalizations; 19–24.)

- x 1976 Allen et al. (DD; in capt.; 39.)
- x *1977 Nair & Lal Mohan (DD; India; sound recordings; 277-278.)
- x 1978 Marsh et al. (DD; vocalizations; 166, 168.)
- x 1979 Anderson, P.K. (DD; ?use of nasal passages; 119.)
- x *1979 Hartman, D.S. (TML; Florida; 85-86, 92, 96, 98-100, 105, 108, 113-114, 116, 130, 135-136.)
- x 1980 Bullock et al. (TI; sound frequencies comp. w/hearing sensitivity; 130-133.)
- x 1981b Anderson, P.K. (DD; in capt.; correlation of sounds with movements of facial skin; 94.)
- x 1981b Reynolds, J.E., III (TML; Florida; female-calf vocalizations, 442-443, 446-447; vocalizations during "body-surfing," m444, m447; vocalizations in general, 447.)
- x 1982b Anderson, P.K. (DD; Shark Bay, Australia; 93-95.)
- x 1982 Bullock et al. (TI, TML; ultrasonic vocalizations; 548, 552.)
- x 1982 Steel & Morris (TML; vocalizations; 925.)
- x 1983 Steel, C. (TML; vocalizations; gen. acc.; 3160-3161.)
- x 1984 Nietschmann, B. (DD; Torres Strait; 640.)
- x *1985 Bengtson & Fitzgerald (TML; Florida; social functions; 816-819.)
- x 1993 Loyer, B. (DD; Vanuatu; "chirps" and associated nasal movements; 55.)
- South America (SEE ALSO under countries)
- 1639 Acuña, C. d'
- x 1666 La Barre, A. (TMM; Guianas; meat obtained by French, English, & Dutch; 14, m31.)
- 1746 Barbot, J.
- 1749 Condamine, C.M. de la
- x 1763 Bellin, S. (TMM; Guianas; gen. acc.; 65-66, pl. 5.)
- 1800 Bueno, R.
- x 1809a Cuvier, G. (*Trichechus*, distr., 282; TMM, Cayenne, 283.)
- x 1813 Ulloa, A. de (TI; R. Marañon; 513.)
- 1835-
- 1836 Poeppig, E.F.
- x 1869 Marcoy, P. (TI; Amazonia; hunting, etc.; 1: 671-673, 2: 149-157, 202-204.)
- x 1873 Conklin, W.A. (*Trichechus*; econ. use; pop. acc.; 166.)
- x 1875 Marcoy, P. (TI; Amazonia; 2: 42, 45, 187-194, 235-237.)
- x 1876 Orton, J. (TI; Amazonia; 215, 299, 477.)
- x 1878 Brown, A.E. ("dugong" reported from Pacific coast; m293.)
- 1879-
- 1882 Alston, E.R.
- 1879 Mathews, E.D.
- x 1884b True, F.W. (*Trichechus*; distr.; 115-116, 123.)
- x 1914 Fountain, P. (TI; Amazonia; 303-304.)
- x 1931 Tate, G.H.H. (*Trichechus*; hunting; 253.)
- x 1939 Wavrin, M. de (*Trichechus*; northern coast & Amazonia; hunting; 194-196.)
- x 1946 Baughman, J.L. (*Trichechus*; early accounts; 235-237.)
- x 1957 Meggers & Evans (TMM; hunting & trading by Indians; m570.)
- x 1960 Vúletin, A. (TMM; Chile [!]; m124.)
- x 1962 Bertram & Bertram (*Trichechus*; Guyana, Suriname, Amazon basin; 1329.)
- 1965 Crowe, P.K.
- 1971 Meggers, B.J. (Amazonia)
- x 1973 Bertram & Bertram (TI, TMM; distr. & status; 317-321.)
- 1973 Sterling, T. (Amazon R.; pop. acc.)
- x 1974 Savage, J.M. (*Trichechus*; zoogeography; 15, 20, 26, 29.)
- 1977 Ferrusquia-Villafranca, I.
- x 1977 Lovisek, J. (TMM, TI; distr. & conservation; pop. acc.; 62-64.)
- x 1981d Domning, D.P. (sir. & aquatic plant paleoecology; 419.)
- x *1982b Domning, D.P. (role in trichechid evolution, 599, 605-607, 610-613, 616; evolution of floating meadows & changes in Amazonian drainage pattern, 610-613.)
- x 1983a Domning, D.P. (manatee evolution & ecology; pop. acc.; 10-11.)
- x 1984b Best, R.C. (TI; Amazonia; gen. acc.; 371-377.)
- x *1989 Lefebvre et al. (TMM; distr., status, & biogeography; 567-570, 584-591, 599, 607-609.)
- South Carolina
- x 1844 Smith, J.L. (fossil ?*Manatus*; 116-117.)
- 1848 Tuomey, M.
- x 1849 Gibbes, R.W. (*Manatus*; "Eoc."; 193.)
- x 1850 Gibbes, R.W. (*Manatus*; "Eoc."; 67-68.)
- x *1856b Leidy, J. (*Manatus antiquus*, n.sp.; 165.)
- x *1873 Leidy, J. (*Manatus inornatus*, n.sp.; 336-337, pl. 37.)
- 1876 Anon.
- x 1876 Leidy, J. ("manatee"; Ashley phosphate beds; m570.)
- x 1877 Leidy, J. (*Manatus antiquus*; m211, 214.)
- x *1883a Cope, E.D. (*Dioplotherium manigaulti*, n.gen.n.sp., Mioc., 52-54; cf. *Halitherium*, 54.)
- x 1886 Manigault, G. (*Dioplotherium*; discovery; 91-92.)
- x *1926 Allen, G.M. (*Halitherium*, *Metaxytherium*; 455-459, pls. 2-3.)
- x 1932a Simpson, G.G. (review of fossil sirs.; 443-445.)

- x 1959 Malde, H.E. (indeterminate sir.; Olig.; 19, 21.)
- x 1966 Kellogg, R. (Mioc. sirs.; 78, 91-92.)
- x *1974a Hartman, D.S. (TML; 47-53.)
- 1974 Sanders, A.E.
- x 1975 Wray, P. (TML; pop. acc.; 21-22.)
- 1980 Roth & Laerm (TM; Pleist., Edisto)
- x 1980 Sanders, A.E. (*Halitherium*, *Metaxytherium*; Olig.; 612.)
- x 1981 Brownell & Ralls (TML; carcass salvaged; 153.)
- x 1982 Domning, Morgan & Ray (Eoc. sirs.; 4, 6, 12-13.)
- x *1982 Rathbun et al. (TML; 154, 156-157, 160-163.)
- x 1986 Domning & Hayek (*Trichechus*; Pleist.; m136.)
- x 1986 Kinnaird, M.F. (TML; pop. acc.; 6-10.)
- x 1988a O'Shea, T.J. (TML; 198-199.)
- x *1989c Domning, D.P. (*Dioplotherium manigaulti*; ?Mioc.; 415-418.)
- Spain
- 1881 Maureta & Thos (*Metaxytherium*; Mioc.)
- 1896 Almera, D.J.
- 1897 Almera, D.J.
- 1898 Almera, D.J.
- 1899a Almera, D.J.
- 1899b Almera, D.J.
- x 1906 Almera, D.J. ("*Halitherium* sp."; Middle Eoc.; 379.)
- 1911 Douvillé, H.
- 1918 Bataller, J.R.
- x 1919 Gómez Lluca, F. (*Metaxytherium Cuvieri*; Mioc., Mallorca; 54-59, 61, 64.)
- 1926 Carbonell & Trillo-Figueroa
- 1926 Font i Sagué, N.
- x 1946 Bauzá, J. (*Metaxytherium cuvieri*; Mioc., Mallorca; 376, pl. 18.)
- x 1949 Colom & Bauzá (*Metaxytherium cuvieri*; Mioc., Mallorca; 91-92, pl. 7.)
- 1950 Via, L.
- x 1952 Cañigüeral, J. (*Metaxytherium*; Mioc., Mallorca; 387-390.)
- x 1956 Bataller, J.R. (*Metaxytherium cuvieri*, Mioc., 24-25, pls. 6-8; *Halitherium*, Eoc., 25.)
- 1956 Marcet-Riba, J. (Eoc.)
- 1959 Crusafont-Pairó, M.
- 1959 Farrés & Ramirez (Eoc.)
- 1961 Farrés, F. (Eoc.)
- 1962 Farrés, F. (Eoc.)
- 1967 Reguant, S. (Eoc.)
- 1969 Calzada, S. (*Metaxytherium*; Mioc.)
- x *1973 Crusafont-Pairó, M. (list & bibliography of sir. occurrences in Spain & Mallorca; 96-98.)
- 1975 Crusafont-Pairó & Golpe Posse (*Halianassa cuvieri*)
- 1988b Pilleri, G. (*Metaxytherium*; Mioc.; pathology)
- *1989 Pilleri et al. (Catalonia)
- 1989 Pilleri, G. (*Metaxytherium*; Mioc., Cerro Gordo; endocranial cast)
- Sri Lanka (formerly Ceylon)
- 1852-
- 1853 Kelaart, E.F. (DD)
- 1859 Tennent, J.E. (DD)
- 1861 Tennent, J.E.
- 1885 Nevill, H. (DD)
- x 1895 Thurston, E. (DD; 98-99.)
- x 1905 Linstow, O.v. (DD; nematode *Ascaris halicoris*; Gulf of Mannar; m258.)
- 1905 Wiley, A. (DD)
- 1914 Millett, M.W.
- 1926 Rasanayagam & Mudaliyar (DD)
- 1927 Phillips, W.W.A.
- x 1928 Prater, S.H. (DD; 85-86.)
- 1933 Deraniyagala, P.E.P.
- 1939 Deraniyagala, P.E.P.
- x 1951 Crusz, H. (DD; trematode *Indosolenorchis hirudinaceus*; 135.)
- x 1953 Fernand, V.S.V. (DD; dentition; 139.)
- x 1954 Crusz & Fernand (DD; trematodes; 499-502.)
- 1959c Anon. (DD; Gulf of Mannar; killed with dynamite)
- x 1959 De Silva, J.A. (DD; conservation; 173-174.)
- x 1959 Spittel, R.L. (DD; captures; 174-175.)
- x 1960b Anon. (*Trichechus*; proposed use for weed control; m5.)
- x 1960c Anon. (*Trichechus*; proposed use for weed control; m70.)
- x 1960 Crusz, H. (DD; pop. acc.; 300-302.)
- x 1960 Jonklaas, R. (DD; status; 302-304.)
- x *1960 Norris, C.E. (DD; distr.; 296-300.)
- x 1960 Spittel, R.L. (DD; sanctuary proposed; 304-305.)
- x 1961 Jonklaas, R. (DD; distr. & conservation; 1, 7-8.)
- x 1961 Santapau & Abdulali (DD; m796.)
- 1963 Kulatunge, D.
- 1965b Deraniyagala, P.E.P. (DD)
- x 1966 Thomas, D. (DD; meat imported from India; 80-81.)
- x *1969a Deraniyagala, P.E.P. (*Miodugong brevicranius*; Mioc.; 97.)
- x 1969b Deraniyagala, P.E.P. (*Miodugong brevicranius*; Mioc.; 235-237.)
- *1969c Deraniyagala, P.E.P. (*Miodugong brevicranius*, n.gen.n.sp.; Mioc.)
- x 1970a Bertram & Bertram (DD; 53-55.)
- x 1970b Bertram & Bertram (DD; 362-364.)
- x 1970 Howes & Bamber (DD; teeth; 327.)
- x 1971 Hoffmann, T.W. (DD; protective legislation; m182.)
- x 1973 Bertram & Bertram (DD; distr. & status; 308, 315-316.)

- *1980 Jones, S.
1980 Lal Mohan, R.S.
- x 1981 Jones, S. (DD; distr. & status; 45–52.)
- x 1981 Santiapillai, C. (DD; ecology & conservation; 2–6.)
- 1983 Jones, S.
- 1984 Leatherwood et al. (DD)
- 1987 Bertram, G.C.L. (DD)
- x *1989 Leatherwood & Reeves (DD; status, distr., catch, conservation; 4–5, 7, 61, 64, 80, 82–91, 105, 129–132.)
- Stamps, Sirenians on Postage (SEE ALSO Appendix 3)
- 1977c Anon. (DD; Kenya)
- 1979b Anon.
- x 1979 Nishiwaki et al. (DD; Ryukyus & Tanzania; 141.)
- x 1981b Hudson, B.E.T. (DD; Papua New Guinea; 131.)
- x 1981 Maynes & Hudson (DD; Papua New Guinea; 4–6.)
- x 1982 Riemer, D.N. (lists 11 stamps; 19–23.)
- x 1983 Gomez, E.D. (lists 28 stamps; 121.)
- x 1983 Marsh, H. (DD stamp proposed; Vanuatu; 4.)
- x 1991b Kamiya, T. (DD; Ryukyus; 428–429.)
- Steller's Sea Cow: SEE *Hydrodamalis gigas* and synonyms
- Stellera, Bowdich, 1821 (intended only as vernacular name; = *Hydrodamalis*)
- *1821 Bowdich, T.E.
- x 1840 Baer, K.E.v. ("*Stellere*, G. Cuvier"; syn. of *Rytina*; m53.)
- x 1925 ICZN (syn. of *Hydrodamalis*; 38.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis*; 75.)
- Stellerus* Desmarest, 1822 (= *Hydrodamalis*)
- *1822 Desmarest, A.G. (n.gen.)
- x 1825 Gray, J.E. (in classification; m341.)
- x 1825a Harlan, R. (m278.)
- 1839 Desmarest, E.? ("*Stellurus*"?)
- x 1840 Baer, K.E.v. (syn. of *Rytina*; m53.)
- x 1872a Gill, T. (syn. of *Rytina*; m92.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis*; 75.)
- Stellerus borealis* (Gmelin, 1788) Desmarest, 1822 (= *Hydrodamalis gigas*)
- *1822 Desmarest, A.G. (n.comb.)
- x 1825a Harlan, R. (m279.)
- x 1835b Duvernoy, G.L. (in classification; tab. 4.)
- x 1837 Richardson, J. (m162.)
- x 1838 Owen, R. (cecum, m32; lack of gall bladder, m34; heart, m35; lungs, m36; kidney, m39.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 93.)
- Superstition: SEE Religious, Superstitious, or Ornamental Use or Observance
- Suriname
- 1613 Harcourt, R.
- 1667 Warren, G.
- 1695 Berkel, A. van
- 1718 Herlein, J.D.
- x 1796 Stedman, J.G. (TMM, 1: 221, 2: 175–176; "mermaid," 2: 176–178.)
- 1807 Quandt, C.
- 1810 Sack, A.v.
- x 1857 Jäger, G. (TMM; skulls; 91, 97.)
- x 1857 Rapp, W.v. (TMM; anatomy; 88.)
- 1862a Krauss, C.F.F. (TMM; osteology)
- 1872 Krauss, C.F.F. (TMM; pelvis)
- x 1872a Murie, J. (TMM; in capt.; 192–193.)
- 1887 Jentink, F.A.
- 1887 Kappler, A. (TMM; in capt.)
- x 1887 Martin, J.K. (TMM; 27.)
- x 1897b Kükenthal, W. (*Manatus Köllikeri*, n.sp.; 40.)
- x 1949 Sanderson, I.T. (TMM; 781.)
- 1961 De Jong, C.
- x 1963 Bertram & Bertram (TMM; status; 90–91.)
- 1966 Vermeulen, J.
- *1967 Dekker, D. (TMM)
- 1971 De Jong, C. (TMM; exploitation)
- 1973 Husson, A.M.
- x 1973 Sonoda & Takemura (TMM; 2 captured; 19.)
- x 1974a Dekker, D. (TMM; 4 captured; 68.)
- x 1974b Dekker, D. (TMM; gen. acc.; 1–3.)
- x 1977 Bertram & Bertram (TMM; use for weed control; 107.)
- x *1978 Husson, A.M. (TMM; distr. & natural history; 334–339.)
- x 1986 Domning & Hayek (TMM; possible morphological distinctiveness of Suriname population; 125–126.)
- x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 587, 608.)
- Switzerland
- x 1837 Meyer, H.v. (*Manatus Studeri*, n.sp. [nomen nudum]; Mioc., Mäggenwyl; 677.)
- x 1847 Meyer, H.v. (?*Metaxytherium*; Otmarsingen; 189–190.)
- 1887 Studer, T. (*Halianassa studeri*)
- *1987 Pilleri, G.
- Tagging Methods and Recognition
- x 1953 Moore, J.C. (TML; Florida; scars; 121.)
- x *1956 Moore, J.C. (TML; Florida; scars; 2–5, 22.)
- 1963 Bertram, G.C.L. (tagging)
- x 1964a Bertram & Bertram (TMM; Guyana; tagging; 117–118.)
- x 1964 Moore, J.C. (TML; Florida; scars; 7–8.)
- x 1969 Hartman, D.S. (TML; Florida; recognition; 345–346.)

- x 1973 Bertram & Bertram (paint; m329.)
- 1976g Anon. (TML; Florida; sonar tags)
- x 1978 Harper, H. (TML; Florida; radiotagging; m12.)
- x 1979 Hartman, D.S. (TML; Florida; scars, belts; 12-14.)
- x 1981 Asper & Searles (TML; Florida; freezebranding; m122-123.)
- x 1981b Beusse et al. (TML; Florida; freezebranding; 111, 118.)
- x 1981b Hudson, B.E.T. (DD; Papua New Guinea; spaghetti tags, tailstock belts; 135-136, 140-141.)
- x 1981 Montgomery et al. (TI; Brazil; freezebranding & radiotagging; 81-85.)
- x 1982b Anderson, P.K. (DD; Australia; scars, Paintstick; 86, 89, 92-93.)
- x 1982 Eberhardt, L.L. (TML; Florida; techniques; 11-13, 15-16.)
- x *1982 Michelson, R.C. (TML; Florida; automated radiotracking; 79-85.)
- x 1983 Kinnaird & Valade (TML; Florida; scars; 2, 6, 8-11, 25-63.)
- x 1983 Packard & Nichols (TML; Florida; sample sizes required for mark-recovery studies; 1-14.)
- x 1983 Packard et al. (TML; Florida; radiotagging, 4-8; vinyl flags, 5, 8.)
- x 1983 Tiedemann, J.A. (TML; Turkey Creek, Florida; scars & natural marks; 6.)
- x *1984 Irvine & Scott (TML; Florida; development of marking techniques; 12-26.)
- x *1984b Packard, J.M. (TM; review of techniques; 1-29.)
- x 1984 Powell & Rathbun (TML; Florida; scars, radiotags; 4-5, 13-14.)
- x 1985 Packard, Frohlich et al. (TML; Ft. Myers, Florida; radiotracking; 5, 10, 12-16.)
- x 1985 Packard, Summers & Barnes (TML; Florida; radiotagging; 347-351.)
- 1986 Mate et al. (TML; Florida)
- 1986 Mate, B.R. (satellite tracking)
- 1987 Marsh & Rathbun (DD; satellite tracking)
- 1987 Rathbun et al. (TML; Florida)
- 1987 Rathbun, Reid & Tas'an (DD)
- x 1988 Doig & Dyson (DD; Australia; satellite tracking; 438-439.)
- x 1988 Marsh, H. (DD; Australia; radiotracking; 12-14.)
- 1988 Sleeper, B. (TML; Florida; pop. acc.)
- 1988 Wilhelm et al. (TML; Florida; scar patterns)
- x 1989 Packard et al. (TML; Florida; visibility of radio-tagged manatees; 695-699.)
- x 1989 Preen et al. (DD; Arabian region; radiotagging; 25-26, 56.)
- x *1989 Reid & O'Shea (TML; Florida & Georgia; satellite transmitters; 217-232.)
- x *1990 Marsh & Rathbun (DD; Queensland; radio & satellite tracking; 83-100.)
- x 1990 Rathbun et al. (TML; Florida; scar patterns, radiotracking; 2-4.)
- x 1991 Reid et al. (TML; Florida; scar patterns; 180-190.)
- Taiwan
- x *1932 Hirasaka, K. (DD; 1-4, pl. 1.)
- x 1934 Hirasaka, K. (DD; 4221-4222.)
- x 1993 Wang, P. (DD; 275, 278.)
- Taphonomy: SEE Paleocology
- Temperature, Effects of (SEE ALSO: Behavior, Shelter-seeking or Escape; Migration & Movements; Natural Death or Injury; Pollution, Effects of; Thermoregulation)
- x 1872a Murie, J. (TMM; in capt., London; death from cold; 192-193.)
- x 1873 Conklin, W.A. (*Trichechus*; in capt., New York; 166.)
- x 1876 Chapman, H.C. (TMM; in capt., Philadelphia; 460-461.)
- x 1878 Brown, A.E. (TMM; in capt., Philadelphia; 296-297.)
- x 1880 Murie, J. (TMM; in capt., London; death from cold; 23.)
- x 1881 Crane, A. (?TI; in capt., Brighton; 460.)
- x 1893 Goeldi, E.A. (TMM; in capt.; m121.)
- x *1895 Bangs, O. (TML; Florida; 784-785.)
- x 1897 Anon. (*Trichechus*; in capt., England; 36.)
- x 1898 Kirke, H. (TMM from Guyana; in capt., England; 135.)
- x 1905 Townsend, C.H. (TML; death in capt., New York; 97.)
- x 1906b Dexler & Freund (DD, *Trichechus*; 58.)
- x 1909 Graham, S.C. (TML; Florida; mortality, 1894-95; m413.)
- x 1924-
- 1925 Vosseler, J. (TI; in capt., Hamburg; 65-66, 113, 115, 128-131.)
- x *1930 Vosseler, J. (TI; in capt., Hamburg; 362-364.)
- x 1931 Brimley, H.H. (TML; in capt., North Carolina; 321.)
- x 1935 Sowerby, A. de C. (DD; China; m82.)
- x 1940 Cahn, A.R. (TML; Florida; 222-223.)
- x 1941a Gunter, G. (TML; Florida; 64.)
- x 1941b Gunter, G. (TM; Texas & Louisiana; m13.)
- x 1941 Hamilton, W.J., Jr. (TML; Florida; winter mortality; 690-691.)
- x 1942 Gunter, G. (TML; Florida; 89.)
- x 1943 Krumholz, L.A. (TML; Florida; 272-273.)
- x 1948 Cahalane, V.H. (TML; Florida Everglades; 258.)
- x 1951a Moore, J.C. (TML; Florida; effects on movements & behavior; 11-12, 14-15.)
- x 1951b Moore, J.C. (TML; Florida; use of warm-water sources, 25; winter mortality, 34-35.)
- x *1953 Moore, J.C. (TML; Florida; 120-121, 156.)

- x 1954 Lawrence, J.E. (TML; Florida; 403.)
- x 1955 Severin, K. (TML; Florida; m148-149.)
- x *1956 Moore, J.C. (TML; Florida; 2, 5-6, 10.)
- x 1961 Jonklaas, R. (DD; Sri Lanka; temperature tolerance; 2.)
- x 1962 Marlow, B.J. (DD; New South Wales; 433.)
- x *1965 Layne, J.N. (TML; Florida; 166-168.)
- x *1967 Browder, J. (TML; Florida; weed control; warming stations; 4.)
- x 1967 MacLaren, J.P. (*Trichechus*; Panama; m392.)
- x 1971b Domning, D.P. (hydrodamalines; North Pacific; evolution; 218.)
- x 1972a Hartman, D.S. (TML; Florida; 21-22.)
- x 1974 Addicott & Greene (*Hydrodamalis*; paleoclimatic significance; 251-252.)
- x *1974 Dekker, D. (TMM; shipboard transport; 68-69.)
- x *1974a Hartman, D.S. (TML; Florida; movements & use of warm-water refugia; 9-30, 63-201, 221.)
- x 1977b Domning, D.P. (effects on North Pacific sir. evolution; 352-362.)
- x 1978 Irvine & Campbell (TML; Florida; use of warm-water sources; 615-616.)
- x 1979 Anderson, P.K. (DD; Shark Bay, Australia; natural thermal refugia; 133.)
- x *1979 Hartman, D.S. (TML; Florida; use of warm-water refugia, 17-27; effect on respiration rate, 82; mortality, 123.)
- x 1980 Irvine et al. (TML; Florida; weight loss & gain in capt.; 7-8.)
- x 1981 Asper & Searles (TML; in capt., Florida; decline in food consumption; 124.)
- x 1981 Best, R.C. (*Trichechus*; effects on digestion rate; 21.)
- x 1981 Brownell, Ralls & Reeves (TML; Florida; review; 8-9.)
- x *1981 Campbell & Irvine (TML; Florida; winter mortality, 1976-77; 86-91.)
- x 1981 Irvine et al. (TML; Florida; winter mortality, 1974-77; 69-70.)
- x 1981 Powell & Waldron (TML; Blue Spring, Florida; 41-46.)
- x 1981 Rose, P.M. (TML; Florida; use of power-plant refugia, 1977-78; 22-24.)
- x 1982a Anderson, P.K. (DD; Shark Bay, Australia; seasonal movements; 80, 82.)
- x 1982 Bengtson, J.L. (TML; St. Johns R., Florida; movements; 4668.)
- x 1982 Rathbun et al. (TML; Georgia; use of warm-water effluent; 153-154, 164.)
- x *1983 Gallivan et al. (TI; thermoregulation; 255-262.)
- x *1983 Irvine, A.B. (TML; Florida; metabolism & distr.; 315-334.)
- x 1983 Kinnaird & Valade (TML; Florida; use of power-plant effluents; 1-24.)
- x 1983a Kinnaird, M.F. (TML; Florida; effects on distr.; 9-10, 13, 16, 25, 29, 34, 40, 48.)
- x 1983 Kochman et al. (TML; Crystal R., Florida; seasonal use; 108-110, 116-121.)
- x 1983 Shane, S.H. (TML; Florida; use of warm-water sources; pop. acc.; 40-44.)
- x 1983 Tiedemann, J.A. (TML; Turkey Creek, Florida; 3-7.)
- x 1984 Buergelt et al. (TML; Florida; necropsy findings, winter kills; 1332-1334.)
- x 1984 Marsh, Heinsohn & Marsh (DD; seasonal breeding; 781-782.)
- x 1984 Packard, Frohlich et al. (TML; Ft. Myers, Florida; use of power-plant effluent; 24-31, 42-46.)
- x 1984 Shane, S.H. (TML; Florida; use of power-plant effluents; 180-187.)
- x 1985 Kochman et al. (TML; Crystal R., Florida; temporal & spatial distr.; 921-924.)
- x *1985 O'Shea, Beck et al. (TML; Florida; winter mortality due to hypothermia; 3-7.)
- x 1985 Packard, Frohlich et al. (TML; Ft. Myers, Florida; use of power-plant effluent; 1-20.)
- x 1985 Reynolds & Wilcox (TML; Florida; use of power-plant refugia, 1982-83; 413-422.)
- x 1986a Anderson, P.K. (DD; Shark Bay, Australia; seasonal movements; 476, 480-489.)
- x 1986 Kinnaird, M.F. (TML; South Carolina; winter kill; 6.)
- x 1986 Packard et al. (TML; Ft. Myers, Florida; use of power-plant effluent; 265-275.)
- x 1986 Reynolds & Wilcox (TML; Florida; use of power-plant refugia, 1984-85; 103-113.)
- x 1987 Reynolds & Wilcox (TML; Florida; use of power-plant refugia; pop. acc.; 263-269.)
- x 1989 Baugh et al. (TML; Cumberland Sound, Florida & Georgia; use of warm-water refugia; 88-89.)
- x 1989 Lefebvre et al. (TM; effects on biogeography; 590-591.)
- x *1989 Packard et al. (TML; Florida; response to interruption of thermal effluent; 692-700.)
- x 1989 Palmer, D. (TML; Georgia; construction of artificial warm-water refugium; 7.)
- x 1989a Preen, A. (DD; Arabian region; 119-121.)
- x 1993 Savinetsky, A.B. (HG; Bering Is.; effects on population size; 403-405.)
- Teratology
- x 1919 Anon. (TI; supposed possession of "two distinct stomachs"; 46.)
- x 1986 Watson & Bonde (TML; ectrodactyly & cleft hand; 294-301.)
- Texas
- x 1884b True, F.W. ("South American manatee"; 115.)
- x 1941a Gunter, G. (TM; 61-64.)
- x 1941b Gunter, G. (TML; 12-13.)

- x 1942 Gunter, G. (TM; 89.)
- x 1943 Lowery, G.H., Jr. (TML; 253-254.)
- xD 1944 Stenzel & Turner (?*Desmostylus*; 289.)
- D 1944 Stenzel et al.
- x 1949 Sprunt, A., Jr. (TM; 288.)
- x 1951a Moore, J.C. (TMM; subspecific identity, movements; 12, 16, 18.)
- xD 1958 Floyd et al. (?*Desmostylus*; 160-161.)
- xD 1963 Mitchell & Repenning (?*Desmostylus*; 10.)
- 1966 Pearsall, J.
- D *1976 Reinhart, R.H. ("*Desmostylus*" probably proboscidean; 286-287.)
- x 1982 Domning, Morgan & Ray (indeterminate sir.; Eoc., Zapata Co.; 4, 6, 8.)
- x 1984 Powell & Rathbun (TM; 2, 6, 18.)
- x 1988a O'Shea, T.J. (TM; 187, 199.)
- x 1990 Fernandez & Jones (TM; 103.)
- 1990 Westgate, J.W. (Middle Eoc., Webb Co.)
- Thalattosiren* Sickenberg, 1928
- *1928 Sickenberg, O. (n.gen.)
- x 1941 Kretzoi, M. (in classification; 152-154, pl. 6.)
- x 1945 Simpson, G.G. (in classification; 135, 251.)
- x 1951 Kretzoi, M. (comp. w/ *Haplosiren*; 438-441.)
- x 1971 Ginsburg & Janvier (comp. w/ *Metaxytherium medium*; 184.)
- x 1978c Domning, D.P. (phyletic position; 577-579.)
- x 1982 Kleinschmidt, A. (m378-380.)
- x 1987 Domning & Thomas (comp. w/ *Haplosiren*, 208; w/ *Metaxytherium*, 223.)
- x 1987b Domning, D.P. (possibly synonymous with *Halianassa* Studer; 123.)
- x 1991 Czyzewska & Radwanski (Middle Mioc., Poland; 184-185, 188.)
- 1991 Wolsan, M. (Middle Mioc., Poland)
- Thalattosiren petersi* (Abel, 1904) Sickenberg, 1928
- *1928 Sickenberg, O. (n.comb.)
- x 1932a Simpson, G.G. (comp. w/ other sirs.; 424, 427, 431-433, 441, 443-445, 451, 456, 468, 475-479, 495, 499.)
- x 1949 Thenius, E. (Czechoslovakia; in faunal list; m162-163.)
- x *1952 Thenius, E. (Czechoslovakia; new material, nomenclature; 33-36, 109-113.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 68.)
- x 1966 Kellogg, R. (comp. w/ *Metaxytherium calvertense*; 73, 78, 83.)
- x 1974 Fondi & Pacini (m47.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs.; 9.)
- Thalattosiren studeri* (von Meyer, 1838) Thenius, 1952 (= *Metaxytherium krahuletzii*)
- x *1952 Thenius, E. (n.comb.; 111, 113.)
- x 1987 Domning & Thomas (m208.)
- Thelriope* Pilleri, 1987 (= *Rytiodus*)
- *1987 Pilleri, G. (n.gen.; replacement name for *Rytiodus*)
- x 1989c Domning, D.P. (syn. of *Rytiodus*; 417.)
- Thelriope capgrandi* (Lartet, 1866) Pilleri, 1987 (= *Rytiodus capgrandi*)
- *1987 Pilleri, G. (n.comb.)
- Thelriopiinae* Pilleri, 1987 (subfamily; = *Dugonginae*)
- *1987 Pilleri, G. (new subfamily; replacement name for *Rytiodontinae*)
- x 1989c Domning, D.P. (syn. of *Rytiodontinae*; 417.)
- Thermoregulation (SEE ALSO: Temperature, Effects of)
- x *1906b Dexler & Freund (DD, *Trichechus*; 58.)
- x 1939 Coates, C.W. (TI; in capt., New York; preference for warm water; 143.)
- x 1943 Krumholz, L.A. (TML; Florida; 272-273.)
- x 1951b Moore, J.C. (TML; ?sunbathing at surface; 32.)
- x *1952 Dekeyser, P.L. (TS; rectal temperatures; 243-246.)
- *1969 Elsner, R.
- 1973 Irving, L.
- x *1976 Allen et al. (DD; rectal temperatures; 38.)
- x 1977b Domning, D.P. (hydrodamalines; evolution; 355-359.)
- x 1978b Domning, D.P. (hydrodamalines; 131-132, 141-142.)
- x 1979 Farmer et al. (TI; rectal temperatures; 232-233, 235.)
- x 1979 Hartman, D.S. (TML; Florida; 23-25, 40-41.)
- x 1979 Tas'an et al. (DD; rectal temperatures; 10, 23, 27.)
- x *1983 Gallivan et al. (TI; measurements of core temperature; 255-262.)
- x *1983 Irvine, A.B. (TML; metabolism & distr. in Florida; 315-334.)
- x 1983 Shane, S.H. (TML; Florida; use of warm-water sources & ?sunbathing at surface; pop. acc.; 40-44.)
- x 1985 Packard, Frohlich et al. (TML; Florida; ?sunbathing; 17.)
- x 1987 Whittow, G.C. (TI; 222, 224, 226-228, 230, 237.)
- x 1989 Packard et al. (TML; Florida; ?basking in sun; 699.)
- Tooth Replacement
- x 1820a Home, E. (DD; tusks, 146-149, 153, pls. 12-14; lower incisors, 153-154, pl. 14.)
- x 1820b Home, E. (DD; 315-316.)
- x 1838 Owen, R. (DD; 42-44.)
- 1852 Owen, R.
- x 1857 Jäger, G. (TM; Suriname; 92-94.)
- 1862a Krauss, C.F.F.
- x 1875b Owen, R. (*Prorastomus*; 566.)
- *1886a Hartlaub, C. (*Trichechus*)
- x 1893 Howes & Harrison (DD, *Trichechus*; 790.)

- x *1896 Kükenthal, W. (TM; embryonic dentition; 513–526.)
- *1897 Thomas & Lydekker (*Trichechus*)
- x 1898 Thomas & Lydekker (*Trichechus*; 814.)
- x 1904 Thomas, O. (*Trichechus*; comp. w/ *Peradorcas*; 226–227.)
- x *1906 Abel, O. (fossil sirs. & DD; 50–52, 59–60.)
- x 1916a Matthew, W.D. (*Halitherium antillense*, etc.; 28–29.)
- *1918b Aichel, O.
- x *1921a Marcus, H. (TS; 574–586, pls. 18–19.)
- x 1921b Marcus, H. (TI, TS; number of teeth; 154–156.)
- x 1924 Andrews, C.W. (sir.-proboscidean similarities; 305–308.)
- x D 1924 Hay, O.P. (*Desmostylus, Cornwallius*; 1–8.)
- x 1926 Aichel, O. (*Trichechus*; 43.)
- x 1927 Brash, J.C. (TM; evidence of alveolar septal reworking; 19–20.)
- x 1931 Sickenberg, O. (suppression of premolars; 428–431.)
- 1936 Colyer, F.
- x 1941 Hamilton, W.J., Jr. (TML; Florida; 691.)
- x *1941a Heuvelmans, B. (*Trichechus*; 1–15.)
- x *1941c Heuvelmans, B. (DD; 1–8.)
- x 1943 Heuvelmans, B. (evolution; 4–7, 12.)
- x 1948 Bessac & Villiers (TS; said to be “completely toothless” in old age; 188.)
- x 1951 Reinhart, R.H. (*Trichechus, Potamosiren*; 206–207.)
- x 1951 Wegner, R.N. (role of dental capsule; 76–81.)
- x *1953 Brash, J.C. (TS, ?TM, DD; alveolar septal reworking; 462–476.)
- x *1953 Fernand, V.S.V. (DD; Sri Lanka; 139–147, pls. 28–30.)
- x 1953 Pascual, R. (*Ribodon*; 175–177.)
- x *1955 Dekeyser, P.L. (TS; 921–925.)
- 1963 Bertram, G.C.L.
- x 1966 Kellogg, R. (fossil & Recent sirs.; 81–82.)
- x 1970 Scheffer, V.B. (DD; 187.)
- x 1977 Domning & Magor (TI; rates & patterns; 435–438.)
- x 1980 Miller et al. (TML; role of transseptal periodontal fibers; 128.)
- x *1982b Domning, D.P. (trichechids, diet & evolution, 601, 603, 607–611, 613–616; *Trichechus*, cheek-tooth homologies, 607–608.)
- x 1983a Domning, D.P. (*Trichechus*; pop. acc.; 8, 10–11.)
- x *1984 Domning & Hayek (TI; rates, patterns, causes; 105–127.)
- x 1985 Fortelius, M. (*Trichechus*; functional significance; 11, 65.)
- Toxodon* Owen, 1840 (Notoungulata)
- x 1847b Gervais, F.L.P. (referred to the Sirenia; 218–219, 221.)
- Trachypleurotherium* Dilg, 1909 (nomen nudum)
- *1909 Dilg, C. (n.gen.; Pará, Brazil; nomen nudum; m84, 90, pl. 12.)
- x 1967a Paula Couto, C. de (probable horizon; considered nomen nudum; 16.)
- x 1967b Paula Couto, C. de (probable horizon; considered nomen nudum; 345.)
- x 1982b Domning, D.P. (probable horizon; considered nomen nudum; 600.)
- Trachytherium* Gervais, 1849 (= *Halitherium*)
- *1849–
- 1850 Gervais, F.L.P. (n.gen.)
- x 1872a Gill, T. (in classification; 92.)
- x 1891 Flower & Lydekker (?syn. of *Rytiodus*; m224.)
- x 1932a Simpson, G.G. (m481.)
- Trachytherium raulinii* Gervais, 1849 (= *Halitherium schinzii*)
- *1849–
- 1850 Gervais, F.L.P. (n.gen.n.sp.)
- x 1866 Lartet, E. (m684.)
- x 1885a Woodward, H. (m470.)
- Traditional Significance: SEE Economic Use; Hunting & Capture; Medicinal Applications; Religious, Superstitious, or Ornamental Use or Observance
- Trichechidae Gill, 1872 (1821) (family)
- x *1872a Gill, T. (n.fam.; in classification; 14, 91.)
- x 1872b Gill, T. (m301.)
- x 1873 Gill, T. (phylogeny; 272–273.)
- x 1884a True, F.W. (in classification; 588.)
- x 1932c Simpson, G.G. (in classification; 281.)
- x 1941 Kretzoi, M. (in classification; 155.)
- x 1945 Simpson, G.G. (in classification; 136, 251.)
- x 1951 Reinhart, R.H. (phylogeny; 203, 208–211.)
- x 1955 Miller & Kellogg (in classification; 790.)
- 1959 Reinhart, R.H. (phylogeny)
- x 1968 Rice & Scheffer (in classification; 6.)
- x *1982b Domning, D.P. (origin & evolution; 599–619.)
- Trichechiformes Hay, 1923 (suborder; = Sirenia)
- x *1923a Hay, O.P. (new suborder; 109.)
- x 1924 Hay, O.P. (m7.)
- x 1932c Simpson, G.G. (in classification; 281.)
- x 1941 Kretzoi, M. (in classification; 154.)
- x 1945 Simpson, G.G. (in classification; 135.)
- x 1982 Kleinschmidt, A. (in classification; 378–379.)
- Trichechinae (Gill, 1872 [1821]) Domning, 1994 (subfamily)
- *1994b Domning, D.P. (new rank)

- Trichechoidea Gill, 1872 (superfamily; = Trichechidae)
- x *1872a Gill, T. (new superfamily; in classification; 91.)
- x 1872b Gill, T. (m301.)
- x 1873 Gill, T. (phylogeny; 273.)
- Trichechus* Linnaeus, 1758
- *1738 Artedi, P.
- x *1758 Linnaeus, C. (n.gen.; 34.)
- xv *1809a Cuvier, G. (history of study, 273–278; names, 278–280 [“trichecus,” 279]; as “mermaids,” 280–281; anatomy, 281–293, pl. 19; fetus, 284; Buffon’s species, 293–294; comp. w/ HG, 296–299; w/ DD, 300–302; fossil “lamantins,” 303, 305–310, pl. 19.)
- x 1825a Harlan, R. (m275; m278 [= *Hydrodamalis*].)
- xv 1837 Robert, C. (affinities w/ *Deinotherium*; m471.)
- xv *1838 Humboldt, A.v. (Orinoco R.; 3–10.)
- xv 1839 Owen, R. (teeth, comp. w/ *Basilosaurus*; 35.)
- xv 1849 Agassiz, L. (affinities; 209.)
- xv 1862 Phillippo (heart; 684–685.)
- xv 1866 Lartet, E. (comp. w/ *Rytiodus*, m680; w/ unnamed sir., 683.)
- x 1872a Gill, T. (in classification; 91.)
- 1872 Peters, W.
- x 1873 Gill, T. (phylogeny; 272.)
- 1875 Wyman, J. (Florida; shell mounds)
- xv 1880 Delfortrie, E. (comp. w/ *Rytiodus*; 135–139, 141.)
- xv 1884 De Vis, C.W. (comp. w/ *Chronozoon*; 394.)
- xv 1885a Woodward, H. (use of forelimbs in feeding, m458; ear ossicles, m462.)
- x 1891 Flower & Lydekker (synonymy; m215.)
- xv 1893 Anon. (in capt., London; pop. acc.; 799–800.)
- xv 1893 Ober, F.A. (West Indies; sighted by Columbus; 236.)
- xv 1894 Dawson, G.M. (m156–157.)
- xv 1897 Anon. (attempts to import live specimens to England; 36.)
- xv 1898 Anderson, R.J. (manus; 766–767.)
- xv 1898 Thomas & Lydekker (tooth replacement; 814.)
- x 1899 Palmer, T.S. (priority over *Manatus*; m494.)
- xv 1901 Broom, R. (ossification of caudal vertebrae; m739.)
- x 1904 Case, E.C. (“Mioc.” [actually Pleist.], Maryland; 57, pl. 26.)
- x 1904 Thomas, O. (tooth replacement, comp. w/ *Peradorcas*; 226–227.)
- xv 1906b Dexler & Freund (behavior & physiology; comp. w/ DD; 54–55, 57–62, 67–70.)
- xv 1908 Anderson, R.J. (parietal; 547.)
- xv 1908 Humphreys, J. (dentine; m8.)
- xv 1912 Rodway, J. (Guyana; superstition; 84.)
- xD 1915 Hay, O.P. (comp. w/ *Desmostylus*; 384–389.)
- xv 1916 Lucas, F.A. (pop. acc.; 315–316, 318.)
- x 1916a Matthew, W.D. (comp. w/ *Halitherium antillense*; 24.)
- x 1916 Miller, G.S., Jr. (Santo Domingo; at archeological site; 9.)
- xv 1917 Anon. (raising for market; 454.)
- x 1923a Allen, G.M. (m232.)
- xv 1924 Andrews, C.W. (dentition; 306–307.)
- x 1924 Thomas et al. (syn. of *Manatus*; 347.)
- x 1925 ICZN (priority over *Manatus*; 38.)
- x *1929 ICZN (priority over *Manatus*; 19.)
- x 1929a Simpson, G.G. (Pleist., Florida; 564.)
- x 1931 Tate, G.H.H. (South America; hunting; 253.)
- x 1932a Simpson, G.G. (Pleist.-Rec., Florida, 419–424, 470; comp. w/other sirs., 427, 431, 460, 463, 478, 482, 488–492, 495–499.)
- x *1934 Hatt, R.T. (synonymy; West Africa; 533–566.)
- xv 1934 Mortensen, T. (supposed occurrence at St. Helena; 417.)
- xv 1936 Kitching, G.C. (supposed occurrence at St. Helena; 33–34.)
- x 1939 Gut, H.J. (Pleist., Florida; 50–53.)
- x 1940 Pocock, R.I. (scapula, comp. w/ DD; 341, 343–345.)
- x *1941a Heuvelmans, B. (dentition; 1–15.)
- x *1941b Heuvelmans, B. (dentition; 1–11.)
- x 1941c Heuvelmans, B. (dentition, comp. w/ DD; 10–11, 13–14.)
- x 1941 Kretzoi, M. (comp. w/ *Sirenavus*, 149; in classification, 154–155.)
- x 1941 Simpson, G.G. (etymology of word “manatee”; 14.)
- xv 1942b Kaltenmark, J. (comp. w/ *Metaxytherium* sp.; 106–108, 111–113.)
- x 1943 Heuvelmans, B. (evolution of dentition; 4, 6–11.)
- x 1945 Simpson, G.G. (in classification; 136, 190.)
- x 1951 Reinhart, R.H. (ancestry; 203–211.)
- x *1952 Hemming, F. (priority over *Manatus*; 159–160.)
- x 1953 Pascual, R. (comp. w/ *Ribodon*; 170–174.)
- x 1955 Dekeyser, P.L. (teeth of embryo; 922.)
- x 1956 Paula Couto, C. de (?Pleist., Brazil; 5, 79, 95, 107.)
- xv 1958 Knoll, W. (blood cells; 332–333.)
- xv 1960b Anon. (weed control; 5.)
- xv 1960c Anon. (weed control; 70.)
- xv 1960 Rood, R.N. (pop. acc.; 133–136.)
- x 1961 Dill, W.A. (weed control; 1–6.)
- x 1962 Wilhelm, W. (m51.)
- xv 1963 Tenney & Remmers (quantitative lung morphology; 54–55.)
- x 1964 Norris, K.S. (possible use of mandibular canal as wave guide in echolocation; 334.)
- x 1965 Kilmer, F.H. (comp. w/ *Halianassa allisoni*; 60, 62–63.)
- x 1965 Robineau, D. (ear ossicles, comp. w/ HG; 420–424.)
- xv 1966b Bertram & Bertram (status; weed control; 214, 216–217.)
- xv 1966d Bertram & Bertram (pop. acc.; 180–184.)

- x 1966 Kellogg, R. (comp. w/ *Metaxytherium calvertense*; 77, 81.)
- D 1966c Shikama, T.
- x 1967 Paula Couto, C. de (comp. w/ *Sirenotherium*; 346–347, 349–356.)
- x 1968a Anon. (pop. acc.; 3–6.)
- x 1968a Bertram & Bertram (ecology & econ.use; 388–390, 393.)
- x 1968b Bertram & Bertram (gen. acc.; 423–426.)
- x 1968a Kaiser, H.E. (occipital region; 478.)
- x 1968 Rice & Scheffer (distr.; 6.)
- x 1968 Romer, A.S. (name *Manatus* preferred; 200.)
- x *1969 Robineau, D. (temporal & ear region; 3, 14–20, 23–31.)
- 1970a Eichler & Albrecht
- x 1972 Varona, L.S. (Cuba; supposed fossil occurrences; m5.)
- x 1972 Verhaart, W.J.C. (brain; 271–292.)
- x 1974 Domning, D.P. (Pleist., Florida & North Carolina; m8.)
- xv 1974b Vietmeyer, N.D. (gen. acc.; weed control; 60–65.)
- xv 1975 Vietmeyer, N.D. (eating water hyacinth; 71–73.)
- x 1976 Webb, S.D. (Pleist. immigration to Florida; 221, 223, 226.)
- xv 1977f Anon. (weed control; pop. acc.; 80.)
- x 1977 Bertram & Bertram (need for captive breeding; Guyana project; 106–108.)
- x 1977b Domning, D.P. (rostral deflection & feeding niche; 353.)
- x 1978c Domning, D.P. (phyletic position; 573, 575, 578–579.)
- x 1979 Cave, A.J.E. (pterygoid hamulus; 530–531.)
- x 1980 McKenna, M.C. (comp. w/ *Florentinoameghinia*; 66.)
- x *1982b Domning, D.P. (origin & evolution; 599–619.)
- x 1982 Domning, Morgan & Ray (comp. w/ *Eoc. sirs.*; 18, 30, 39.)
- xv 1983 Morgan & Pratt (Pleist., Florida; 24.)
- x 1985 Fortelius, M. (functional anatomy of cheek teeth; 11, 52–53, 65, 73.)
- x *1986 Domning & Hayek (morphological variation, 87–144; Pleist., South Carolina, 136.)
- x 1988 Nojima, T. (bony falx cerebri; 315, 320.)
- x *1989 Gallagher et al. (?Pleist., New Jersey; 107–108.)
- xv 1991c Domning, D.P. (justifications for conservation; 167–173.)
- x 1992 McKenna, M.C. (eye-lens proteins; phylogeny & affinities; 350, 354–355, 357.)
- x 1992 Thewissen & Domning (character states; 502.)
- Trichechus aequatorialis* (Lacépède, 1799) Hatt, 1934 (= *Trichechus senegalensis*)
- x *1934 Hatt, R.T. (n.comb. [lapsus?]; syn. of *T. senegalensis*; 537.)
- x 1982 Kleinschmidt, A. (syn. of *T. senegalensis*; 382.)
- Trichechus amazonius* Shaw, 1800 (= *Trichechus manatus*)
- *1800 Shaw, G. (n.sp.)
- 1818 Olfers, I.
- x *1934 Hatt, R.T. (syn. of *T. m. manatus*; type locality restricted; 536.)
- x 1959 Hershkovitz, P. (syn. of *T. m. manatus*; 342.)
- x 1961 Cabrera, A. (syn. of *T. inunguis* in part, 309; of *T. m. manatus* in part, 310.)
- Trichechus americanus* Link, 1795 (= *Trichechus manatus*)
- *1794–
- 1795 Link, H.F. (n.sp.)
- x *1934 Hatt, R.T. (syn. of *T. m. manatus*; type locality restricted; 535–536.)
- x 1961 Cabrera, A. (syn. of *T. inunguis* in part, 309; of *T. m. manatus* in part, 310.)
- x 1982 Kleinschmidt, A. (syn. of *T. manatus*; 381.)
- Trichechus antillarum* Link, 1795 (= *Trichechus manatus*)
- *1794–
- 1795 Link, H.F. (n.sp.)
- x 1934 Hatt, R.T. (syn. of *T. m. manatus*; 535.)
- x 1961 Cabrera, A. (syn. of *T. m. manatus*; 310.)
- x 1986 Domning & Hayek (m125.)
- Trichechus antiquus* (Leidy, 1856) Hay, 1902 (nomen dubium)
- x *1902 Hay, O.P. (n.comb.; 583.)
- x 1919 Hay, O.P. (Pleist., Florida; 109–110, pl. 26.)
- x 1923a Allen, G.M. (m232.)
- x *1926 Allen, G.M. (referred to *Halitherium*; 455.)
- x 1932a Simpson, G.G. (m421.)
- x 1982b Domning, D.P. (specimen of Hay [1919] considered Subrecent TM; 604–605.)
- Trichechus australis* (Gmelin, 1788) Shaw, 1800 (= *Trichechus senegalensis*, in part; *Trichechus manatus*, in part)
- *1800 Shaw, G. (n.comb.)
- x 1838 Diesing, C.M. (parasites *Lobocephalus heterolobus* & *Amphistoma fabaceum*; m189.)
- x 1850 Wyman, J. (syn. of *Manatus Senegalensis*; m45.)
- 1894 Rhoads, S.N. ([= TM])
- x 1934 Hatt, R.T. (syn. of *T. senegalensis*; 537.)
- x 1951 Reinhart, R.H. (m208.)
- Trichechus australis* Retzius, 1794 (= *Dugong dugon*)
- *1794 Retzius, A.J. (n.sp.)

- Trichechus borealis* (Gmelin, 1788) Shaw, 1800 (= *Hydrodamalis gigas*)
- *1800 Shaw, G. (n.comb.)
 - x 1825a Harlan, R. (m279.)
 - x 1883 Stejneger, L. (syn. of *Rytina gigas*; m78.)
 - x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 75, 93.)
- Trichechus clusii* (Pennant, 1793) Shaw, 1800 (= *Trichechus manatus*)
- *1800 Shaw, G. (n.sp.)
 - 1818 Olfers, I.
 - x 1934 Hatt, R.T. (syn. of *T. manatus*; 536.)
 - x 1959 Hershkovitz, P. (syn. of *T. m. manatus*; 342.)
 - x 1961 Cabrera, A. (syn. of *T. m. manatus*; 310.)
- Trichechus dugon* Müller, 1776 (= *Dugong dugon*)
- x *1776 Müller, P.L.S. ("*Trichechus dugon*"; n.sp.; 21–22.)
 - x 1780 Zimmermann, E.A.W. ("*Trichechus (Dugong)*"; diagnosis & distr.; 425.)
 - 1795 Forster, J.R.
 - 1798 Cuvier, G.
 - x 1808 Tiedemann, F. ("*T. dugong*"; syn. of *Dugungus indicus*; m554.)
 - x 1820 Diard & Duvaucel ("*trichechus dugong*"; anatomy; 159–160.)
 - x 1821 Gray, J.E. ("*T. dugong*"; in classification; 309.)
 - 1824 Desmoulins, A.
 - x 1964 Johnson, D.H. (syn. of *Dugong dugon*; 506.)
 - x 1978c Domning, D.P. (m578.)
- Trichechus exunguis* (Natterer in Diesing, 1839) Stunkard, 1929 (= *Trichechus inunguis*)
- x *1929 Stunkard, H.W. (n.comb.; trematodes; 254.)
 - x *1981c Domning, D.P. (suppression of name proposed; 130–132.)
 - x 1982 Domning, Rice et al. (syn. of *T. inunguis*; nomen oblitum; m305.)
- Trichechus giganteus* (DeKay, 1842) Case, 1904 (Cetacea)
- x *1904 Case, E.C. (n.comb.; Mioc., Maryland; 56–57, pl. 26.)
 - x 1966 Kellogg, R. (review, 66; m83.)
- Trichechus hydropithecus* Shaw, 1800 (Steller's "sea-ape"; nomen nudum)
- *1800 Shaw, G. (n.sp.; nomen nudum)
- Trichechus inornatus* (Leidy, 1873) Hay, 1902 (nomen dubium)
- x *1902 Hay, O.P. (n.comb.; 584.)
 - x *1926 Allen, G.M. (synonymized with *Halitherium anti-quum*; 455.)
 - x 1989c Domning, D.P. (considered nomen dubium; 416.)
- Trichechus inunguis* (Natterer in von Pelzeln, 1883) Trouessart, 1905
- 1541 SEE Carvajal, G. de, 1934.
 - 1768 SEE Noronha, J.M. de, 1856.
 - 1786 SEE Rodriguez Ferreira, A., 1903.
 - xv *1809a Cuvier, G. (French Guiana; external morphology, 283–285; skeleton, 285–293, pl. 19.)
 - xv 1813 Ulloa, A. de (Marañon R.; 513.)
 - xv 1829 Maw, H.L. (Peru/Brazil border; 237–239.)
 - xv 1836 Smyth & Lowe (Sarayacu, Peru; 197, 242–243.)
 - xv 1847 Edwards, W.H. (Amazonia; 187–188.)
 - xv 1850 Sampaio, F.X.R. de (Rio Branco, Brazil; m259.)
 - xv 1851 Warren, J.E. (Brazil; 149.)
 - xv 1853 Herndon, W.L. (Peru, 158, 163–164, 200; Brazil, 300, 319, 365.)
 - xv 1853 Wallace, A.R. (Amazonia; 185–187, 458–461.)
 - xv 1854 Gibbon, L. (Madeira R., Brazil; "few" taken; m309.)
 - xv 1863 Bates, H.W. (Amazonia; 2: 165.)
 - xv 1869 Marcoy, P. (Amazonia; hunting, etc.; 1: 671–673, 2: 149–157, 202–204.)
 - xv 1872 Kingston, W.H.G. (Amazonia; predation by jaguar; 184–190.)
 - xv 1874 Heriarte, M. de (Gurupá & Trombetas R., Brazil; ca. 1662; 29–30, 39.)
 - xv 1875 Marcoy, P. (Amazonia; hunting, etc.; 2: 42, 45, 187–194, 235–237.)
 - xv 1875 Wilder, B.G. (Peru; fetus; 105–106, 108–109, 112–114.)
 - xv 1876 Orton, J. (Amazonia; 215, 299, 477.)
 - xv 1878 Brown & Lidstone (Brazil; Jamaragua, 175–176; in capt., Manaus, 395–396.)
 - xv 1900 Anchieta, J. de ("*Trichechus, manatus borealis*"; Brazil; gen. acc.; 11–12.)
 - *1904–
 - 1905 Trouessart, E.-L. (n.comb.)
 - xv 1907 Wilder, B.G. (fetus; 663.)
 - xv 1908 Wilder, B.G. (fetus; 825.)
 - xv 1914 Fountain, P. (Amazonia; 303–304.)
 - x 1917 Fairchild, D. (m339.)
 - x *1924–
 - 1925 Vosseler, J. (in capt.; historical records, 60–63, 130; in Hamburg, 63–67, 113–133, 167–180, 213–230.)
 - xv 1926 MacCreagh, G. (Uaupés R. area, Brazil; 277, facing 309, 313, 323–324.)
 - xv 1926 Schurz, W.L. (Brazil; 2 photos of carcasses; 449–450.)
 - x 1930 Vosseler, J. (in capt., Hamburg; 362–364.)
 - xv 1931 Moraes, R. (mixira; 67.)
 - xv 1933 Rusby, H.H. (Madeira R., Brazil; 324–325.)
 - x *1934 Hatt, R.T. (distr., 538; skeleton, 539–554, 560–561.)
 - xv 1937 Orico, O. (Brazil; legends; 190–191.)

- x 1938 Oldham et al. (in capt., Chicago, m27; hypophysis, 27-32.)
- x *1939 Coates, C.W. (in capt., New York; 141-148.)
- xv 1939 Wavrin, M. de (Amazonia; hunting; 194-196.)
- x 1940 Coates, C.W. (in capt., New York; 99-100.)
- xv 1940 Machado, F. de P. (Brazil; use of meat & hide; conservation; breeding in winter; 246.)
- x 1941a Gunter, G. ("Texas"; m61.)
- x 1941a Heuvelmans, B. (dentition; 3.)
- x 1941b Heuvelmans, B. (dentition; 1-2, 8.)
- xv 1941-
1943 Pereira, M.N. (Brazil; econ. use; 100-102, 153-154, 218, 65.)
- xv 1943 Jobim, J. (Brazil; use for tinted hides; 178.)
- xv 1944 Morais Rêgo, A.R. de (natural history, hunting, econ. use; 10-12.)
- x *1944 Pereira, M.N. ("*T. manatus*"; natural history; 21-94.)
- xv 1945 Paiva, M. (pop. acc.; 35-36.)
- x 1945 Santos, E. (Brazil; hunting, econ. use; 155-159.)
- x 1946 Slijper, E.J. (spinal column & muscles; 42-43, 47, 53, 73-78, tabs. 3, 5, 6.)
- x 1948 Mendes, A. ("*T. manatus*"; Brazil; hunting, econ. use; 325-327.)
- x 1949 Vieira, C.O.C. (Juruá R., Brazil; 241, 268-269.)
- x 1951 Fernand, V.S.V. (pituitary, comp. w/ DD; 58-59.)
- x 1951 Reinhart, R.H. (m208.)
- xv 1954 Aragão, A. de ("*Manatus*"; Brazil; hunting; 54-56.)
- x 1954 Gunter, G. (m544.)
- x 1954 Lawrence, J.E. (m402.)
- xv 1954 Pereira, M.N. (conservation; m269, m271.)
- x 1956 Moore, J.C. (hunting, m1-2; floating, m17-18.)
- xv 1956 Pereira, M.N. (Marajó, Brazil; 68.)
- xv 1957 Meggers & Evans (hunting & trading by Amazonian Indians; m570.)
- x 1961 Cabrera, A. (synonymy; 309-310.)
- x 1962 Bertram & Bertram (Amazon basin; status; 1329.)
- 1963 Bertram, G.C.L. (Takatu R., Guyana)
- 1963 Freundt de Castro, E.
- x 1965 Ruschi, A. (supposed occurrence in Espirito Santo, Brazil; 30.)
- x 1967 Browder, J. (m5.)
- x 1967 Carvalho, J.C. de M. (Brazil; exploitation; 25-27, 31, 33.)
- x 1967 Feriz, H. (clay model, Brazil; 373-374.)
- x 1967 MacLaren, J.P. (from Peru; used for weed control in Panama; 388.)
- xv 1967 Pereira, M.N. (Rio Branco, Brazil, 23; Indian legend, 467.)
- xv 1967 Salles, W.B. de (pop. acc.; 124-127.)
- xv 1968b Anon. (in capt., San Francisco; 2-3.)
- 1968 Garibaldi, L.
- x 1968 Grimwood, I.R. (Peru; status & exploitation; 418.)
- x 1968 Rice & Scheffer (distr.; 6.)
- x 1969 Carvalho & Toccheton (Brazil; 224.)
- x *1969 Frye & Herald (in capt., San Francisco; treatment for osteomyelitis; 1073-1076.)
- x 1969 Grimwood, I.R. (Peru; status & exploitation; 61.)
- xv 1969 Herald, E.S. (in capt., San Francisco & Pittsburgh; 29-30.)
- x *1969 Robineau, D. (temporal & ear region; 3, 14-16.)
- x *1970 Evans & Herald (in capt., San Francisco; vocalizations; 820-823.)
- x *1970 Loughman et al. (chromosomes; 151-152, pl. 49.)
- xv 1970 Schreider & Schreider (in capt., Leticia, Colombia; 142.)
- x 1971 Jones, M.L. (in capt.; 85.)
- xv 1971 Lima, D.C. (Itacoatiara, Brazil; meat exported, 1968; 7.)
- x 1972 Blessing et al. ("*T. manatus inunguis*"; spleen; 166-171, 173-178, 182-188, 190, 193, 195-203.)
- x 1972 Blessing, M.H. ("*T. manatus inunguis*"; myoglobin concentrations; 475-479.)
- x 1972 Coimbra-Filho, A.F. (Brazil; status; 82-87.)
- 1972 Mittermeier, R.A.
- x 1973a Anon. (Guyana; weed control; 5.)
- x 1973 Bertram & Bertram (distr. & status, 317-318; econ. use, 322-324.)
- x 1973 Lewis & Wilson (plasma fibrinogen; 421-422.)
- 1973 Mossman & Duke (ovary)
- x 1973 Pine, R.H. (Belém, Brazil; 74.)
- x *1973 Sonoda & Takemura (vocalizations; 19-24.)
- x 1974 Bertram, G.C.L. (conservation; 7, 14, 19.)
- x 1974 Hawrylyshyn, G. (Brazil; 20.)
- x 1974 Mondolfi, E. (Venezuela; probably absent from lower Orinoco R.; 5-6, 15.)
- x 1975 Pinto da Silveira, E.K. (in capt., Brazil; 223-226.)
- x 1976 Boever et al. (*Mycobacterium* infection; 927-929.)
- x 1976 Campbell, H.W. (gen. acc.; 1, 7.)
- x 1976 Marmol B., A.E. (Peru; food plants; 31-32.)
- x 1976 Neville et al. (Samiria R. area, Peru; 155.)
- x 1977 Boever et al. (in capt.; trematode *Chiorchis*; 5-6.)
- x 1977 Domning & Magor (tooth replacement; 435-438.)
- x 1977a Domning, D.P. (myology, comp. w/ DD; 10-14, 17, 25-26, 29.)
- x 1977c Domning, D.P. (in capt., Manaus, Brazil; sold as pets to private owners; 3.)
- x 1977 Farmer & Bonaventura (hemoglobin; 916.)
- x 1977 Lovisek, J. (conservation; pop. acc.; 62-64.)
- xv 1977 Meggers, B.J. (raising for meat proposed; 49.)
- x 1977 Van Bree & Duguay (Ucayali R., Peru; 292.)
- x *1977 Whitehead, P.J.P. (?earliest account that of Carvalho; 169-170.)
- 1978 Boever, W.J. (*Mycobacterium* infections)
- x *1978a Domning, D.P. (myology; 1-81.)
- x 1978b Domning, D.P. (m30.)
- x 1979 Best & da Silva (Brazil; research; pop. acc.; 26-27, 29.)

- x *1979a Farmer et al. (hemoglobin & whole blood properties; 231-238.)
- x 1979 Hartman, D.S. (in capt., San Francisco; food consumption; 54.)
- x 1979 Mok & Best (skin fungus; 79-82.)
- x 1980 Ayres & Best (Brazil; conservation; 83-85, 90-92.)
- x 1980 Banks da Rocha, N. (in key; 147-148.)
- x 1980 Bullock et al. (hearing; evoked brain potentials; 130-133.)
- x 1980 De Jong & Zweers (eye-lens proteins & phylogeny; 897-202.)
- x 1980 Domning, D.P. (food position preference; 544-547.)
- x *1980 Gallivan & Best (metabolism & respiration; 245-253.)
- x *1980 Gallivan, G.J. (respiratory control; 254-261.)
- x 1981 Best, R.C. (diet & nutrition; 3-4, 7-13, 15, 18-24.)
- x 1981 Domning & Myrick (tetracycline marking of rib; 203-207.)
- x *1981a Domning, D.P. (distr. near mouth of Amazon R.; hunting; 85-97.)
- x 1981b Domning, D.P. (Brazil; research; pop. acc.; 18-23.)
- x *1981c Domning, D.P. (suppression of synonym *T. exunguis* proposed; 130-132.)
- x *1981 Montgomery et al. (Brazil; radiotracking & habitat use; 81-85.)
- x 1981 Simpson & Paula Couto (Pleist., Brazil; 48-49, 69.)
- x 1981a Smith, N.J.H. (Brazil; econ. use; 184-186.)
- x 1981b Smith, N.J.H. (Itacoatiara, Brazil; 95-96.)
- x 1981 Sprent, J.F.A. (nematode *Heterocheilus*; 310, 312.)
- x *1982a Best, R.C. (seasonal breeding; 76-78.)
- x 1982b Best, R.C.
- x 1982 Best, Ribeiro et al. (feeding with artificial formula; 263-267.)
- x 1982 Bullock et al. (auditory evoked potentials & ultrasonic vocalizations, comp. w/ TML; 548, 552.)
- x 1982 De Jong & Goodman (eye-lens proteins & phylogeny; 261-269, 273.)
- x *1982a Domning, D.P. (Brazil; commercial exploitation; 101-126.)
- x *1982b Domning, D.P. (evolution; 600, 603-613, 615-616.)
- x 1982 Domning, Rice et al. (distr. & status; 305-306.)
- x 1982 Kleinschmidt, A. (distr., 372, 380, 382; tail shape, 408.)
- x 1982 Montgomery et al. (introduction of one individual into Panama Canal; m257.)
- x *1983 Best, R.C. (dry-season fasting; 61-64.)
- x 1983a Domning, D.P. (tooth replacement; pop. acc.; 8, 10-11.)
- x *1983 Gallivan et al. (thermoregulation; 255-262.)
- x 1983 Irvine, A.B. (metabolism & body temperature range; 327-328.)
- x 1983 Lainson et al. (protozoan *Eimeria trichechi*; 287-289.)
- x *1983 Piggins et al. (eye & vision; 111-129.)
- x 1984 Best, R.C. (pop. acc.; 66-73.)
- x 1984b Best, R.C. (gen. acc.; 371-377.)
- x *1984 Domning & Hayek (tooth replacement; 105-127.)
- x 1984 Marsh, Heinsohn & Marsh (seasonal calving, comp. w/ DD; 781, 783.)
- x 1984 Rainey et al. (molecular systematics; 586-587.)
- x 1985 Morales et al. (in capt., San Francisco; *Mycobacterium* infection; 1230-1231.)
- x 1985 Muizon & Domning (m209.)
- x *1986 Domning & Hayek (morphological variation; 87-144.)
- x *1986 Gallivan & Best (feeding, fasting, metabolism, ventilation; 552-557.)
- x *1986 Gallivan et al. (heart rates & gas exchange in diving; 415-423.)
- x 1986 McLaren et al. (Brazil; specimens in Carnegie Museum; 293.)
- x 1986 Miyamoto & Goodman (protein sequences & phylogeny; 230-240.)
- x 1986 Morales, P. (in capt., San Francisco; food, pathology; 43-48.)
- x 1986 Timm et al. (Ecuador; ecology, distr., status; 150-156.)
- x 1987 Colares & Colares (seasonal variation in food-plant abundance; 42-44.)
- x 1987 Colares & Ferreira (intestinal blockage by polyp; pathological & normal blood values; 39.)
- x 1987 Colares et al. (artificial milk formulas; 40-41.)
- x 1987 Whittow, G.C. (thermoregulation; 222, 224, 226-228, 230, 237.)
- x 1988 Assis et al. (cytogenetics; 41-50.)
- x 1988 Fischer, M.S. (tympanic cavity, comp. w/ TM; 370.)
- x 1988 Kleinschmidt et al. (hemoglobin; 507-512.)
- x 1988 O'Shea et al. (absent from Venezuela, 282, 288; comp. w/ TM, 298.)
- x 1989 Timm et al. (Ecuador; hunting techniques of Siona Indians; 1-7.)
- x 1990 Colares et al. (Manaus; care in capt.; 43-47.)
- x 1990 Klishin et al. (hearing)
- xv 1991b Anon. (Brazil; conservation; 221.)
- x *1991 Domning & de Buffrénil (location of centers of gravity & buoyancy; hydrostatic adaptations; cross-sectional anatomy; 339-340, 347-350, 352-356, 359-360, 362-363, 366-368.)
- 1991 Rosas et al. (Brazil)
- 1991 Rosas, F.C.W. (Brazil)
- 1992 Colares & Colares (in capt.; food preferences)
- 1992 Colares et al. (blood chemistry)

- x 1992 Ketten et al. (ear & hearing, comp. w/ TML; 83, 89-91.)
- x 1992 Marmontel et al. (reproductive biology; 295-312.)
- 1992 Mukhametov et al. (sleep)
- x 1992 Roth, V.L. (variation in tooth size, comp. w/ elephants; 194-195, 197.)
- Trichechus inunguis koellikeri* (Kükenthal, 1897) Derscheid, 1926 (= *Trichechus manatus manatus*)
- *1926 Derscheid, J.M. (n.comb.)
- Trichechus koellikeri* (Kükenthal, 1897) Trouessart, 1905 (= *Trichechus manatus*)
- *1904-
- 1905 Trouessart, E.-L. (n.comb.)
- Trichechus latirostris* (Harlan, 1824) True, 1884 (= *Trichechus manatus*)
- 1873 Jordan, T.
- x *1884a True, F.W. (n.comb.; in classification; 588.)
- x *1884b True, F.W. (gen. acc.; 114-128.)
- x 1895 Bangs, O. (Florida; 783-787.)
- x 1900 Evermann, B.W. (Puerto Rico; m25.)
- 1916 Nelson, E.W. (Florida)
- x 1916 Stone & Cram (gen. acc.; 26-27.)
- x 1917 Fairchild, D. (Florida; possible commercial exploitation for meat; 339.)
- x 1919 Safford, W.E. (Miami, Florida; 423-424.)
- x 1922 Parker, G.H. (respiration & diving; 128-135.)
- x 1924-
- 1925 Vosseler, J. (in capt., historical records, 59-65, 130; body size, 167.)
- x 1925 Kellogg, R. (comp. w/*Metaxytherium jordani*; 62, 64-65, 67-69.)
- x 1929 Stunkard, H.W. (trematodes; m255.)
- x 1935a Wislocki, G.B. (lungs; 385-396, pls. 1-2.)
- x *1935b Wislocki, G.B. (placentation; 159-178, pls. 1-7.)
- x 1941a Gunter, G. (Texas; 61.)
- x 1941 Hamilton, W.J., Jr. (Florida; winter mortality; migration; tooth replacement; 687, 690-691.)
- x 1941a Heuvelmans, B. (dentition; 4.)
- x *1941b Heuvelmans, B. (dentition; 2, 4-8.)
- x 1941c Heuvelmans, B. (dentition, comp. w/DD; 10.)
- x 1941 Irving et al. (respiration; m151, m158, 166.)
- x 1941 Scholander & Irving (respiration & diving; 169-191.)
- x 1942a Fawcett, D.W. (blood-vascular bundles; 105-133.)
- x 1942b Fawcett, D.W. (pachyostosis & hypothyroidism; 271-309.)
- x 1942 Heuvelmans, B. (comp. w/*Prorastoma veronense*; 5.)
- x 1943 Heuvelmans, B. (dentition; 8-10.)
- x 1948 Cahalane, V.H. (Florida Everglades; 258.)
- x 1951 Bourlière, F. (submergence of 16 min.; 21.)
- x 1951 Fernand, V.S.V. (pituitary, comp. w/DD; 57-59.)
- x 1951 Reinhart, R.H. (m204, 207.)
- x *1953 Quiring & Harlan (anatomy; 192-203.)
- x 1954 Gunter, G. (m543.)
- x 1955 Dekeyser, P.L. (teeth; 292.)
- x 1955 Miller & Kellogg (syn. of *T. manatus latirostris*; 791.)
- x 1955 Severin, K. (in capt.; pop. acc.; 147-149.)
- x *1958 Tenney, S.M. (heart & electrocardiogram; 933-938.)
- x 1963 Boyde & Stewart (tooth enamel; 1102-1103.)
- x 1968 Rice & Scheffler (syn. of *T. manatus*; 12.)
- x 1969 Allsopp, W.H.L. ("*T. (manatus) latirostris*"; weed control; 344-350.)
- x 1982 Domning, Rice et al. (syn. of *T. manatus*; m306.)
- x 1982 Kleinschmidt, A. (in capt.; 412.)
- Trichechus manatus* Linnaeus, 1758
- v 1526 Oviedo, G.F. de (hunting)
- xv 1733 Perrault, C. (gen. acc.; 190-191, 193-194, 198-199.)
- x *1758 Linnaeus, C. (n.gen.n.sp.; 34.)
- x 1769b Bancroft, E. ("*Trichecus*"; Guyana; gen. acc.; 112-113.)
- x 1773 Müller, P.L.S. ("*Trichecus*"; gen. acc.; 174-176, pl. 29.)
- x 1778 Zimmermann, E.A.W. (distr. [includes DD]; distinguished from HG; 253-254.)
- x *1780 Fabricius, O. (Greenland; 6.)
- x 1780 Zimmermann, E.A.W. (diagnosis; 426-427.)
- x 1791 Bartram, W. (Florida; 231-232.)
- 1795 Forster, J.R.
- 1798 Cuvier, G.
- x 1801 Stewart, C. ("*Trichecus*"; gen. acc.; stranded in Scotland; 85.)
- x 1804 Wiedemann, C.R.W. (skull; 67-76.)
- x 1808 Tiedemann, F. (syn. of *Manatus australis*; m555.)
- x 1809 Descourtiz, M.E. (San Domingo; 2: 274-276.)
- x 1817 Stewart, C. ("*Trichecus*"; gen. acc.; stranded in Scotland; 125.)
- x 1821 Gray, J.E. (in classification; 309.)
- x 1824 Harlan, R. (m390.)
- 1833 Serres, M. de
- x 1848 Schomburgk, R. (syn. of *Manatus australis*; 786.)
- x 1850 Wyman, J. (syn. of *Manatus Americanus*; m45.)
- xv 1877 De Pourtales, L.F. (Florida & West Indies; distr.; 144.)
- x 1880 LeBaron, J.F. ("*Tricecus*"; Florida; distr., hunting; 1005-1006.)
- x 1884a True, F.W. (in classification; 588.)
- x *1884b True, F.W. (gen. acc.; 114-128.)
- x 1887 Roviroso, J.N. (syn. of *Manatus australis*; m356.)
- xv 1898 Hill, R.T. (Cuba, m56; Jamaica, m199; Bahamas, m298.)
- x 1901 Elliott, D.G. (m6.)

- x 1904 Allen, J.A. (Colombia; 423.)
- x 1904a Lorenz, L.v. ("*Trichecus*"; m9.)
- x 1910 Allen, J.A. (Nicaragua; m89, m94.)
- x 1911 Thomas, O. (type locality fixed as West Indies; 131-132.)
- x 1916 Sellards, E.H. (Pleist., Florida; 104.)
- x 1918 Cunf y Valera, L.A. (syn. of *Manatus americanus*; 87-89.)
- x 1918 Ménégau, A. (Florida; attempted commercial use; 698-700.)
- x 1918 Miller, G.S., Jr. (Virgin Islands; at archeological site; 509.)
- 1919 Beebe, W. (Guyana; 226.)
- x 1919 Hay, O.P. (comp. w/ *T. antiquus*; 109-110.)
- x 1919 Stiles, C.W. (North Carolina; in capt.; 658.)
- x 1920 Goldman, E.A. (Panama; 68-71.)
- 1924b Miller, G.S., Jr.
- x 1924 Thomas et al. (type species of *Manatus*; m347.)
- x 1925 ICZN (m38.)
- x 1929 ICZN (m19.)
- x 1929 Miller, G.S., Jr. (Dominican Republic; archeological sites; 11-12.)
- x 1931 Travassos & Vogelsang (trematode *Cochleotrema cochleotrema*; 145.)
- x 1932 Sokoloff & Caballero (trematode *Schizamphistoma manati*; 167.)
- x *1934 Hatt, R.T. (synonymy, 534-537; comp. w/ other spp., 539-554, 560-561.)
- x 1935 Murie, A. (Belize; 30.)
- x 1941a Gunter, G. (m63.)
- 1944 Jel, P. de
- x 1944 Pereira, M.N. (considered the "correct" name for the Amazonian manatee; 37.)
- xv *1946 Baughman, J.L. (early accounts; 234-237.)
- x 1946b Goodwin, G.G. (Costa Rica; 445.)
- x 1947 Marden, L. (Guatemala; 546, 552, 558.)
- x 1948 Mendes, A. (used as the "correct" name for the Amazonian manatee; 325.)
- x 1951 Bourlière, F. (euryhaly; 194.)
- x *1952 Hemming, F. (placed on Official List of Names in Zoology; 159-160.)
- x 1954 Aragão, A. de (m55.)
- x 1954 Gunter, G. (distr. & habits; 543-545.)
- x *1955 Kellogg, W.N. (Florida; phonograph record of vocalizations.)
- x 1958 Tomkins, I.R. (Georgia; 154.)
- x 1959 Smith, F.G.W. (connections with mermaid legends; pop. acc.; 74-82.)
- x 1960 Allsopp, W.H.L. (Guyana; weed control; 762.)
- 1960d Anon.
- x 1960 Vúletin, A. (northern South America; gen. acc.; 124.)
- x 1961 Cabrera, A. (synonymy; 310.)
- 1964 Wauchope, R. (Yucatan)
- x 1965 Bard, J. ("*Trichecus*"; Guyana; weed control; 5, 8.)
- x 1965 Jones, J.K. (Nicaragua; Indian name; 354.)
- x 1965 Randall, J.E. (m259.)
- x 1966 Pearsall, J. (Texas)
- x 1967 MacLaren, J.P. (Panama; weed control; 388-393.)
- x 1967 Paula Couto, C. de (comp. w/*Sirenotherium*; m347.)
- x 1968 Rice & Scheffer (distr., 6; synonymy, m12.)
- x 1968 Wing et al. (Antigua; 129.)
- x 1969 Robineau, D. (temporal & ear region; 3, 14-15.)
- x 1970 Erdman, D.S. (Puerto Rico; 638.)
- 1970 Mendez, E. (Panama)
- 1970 Radhakrishnan & Bradley (trematodes *Chiorchis fabaceus*, *Plicatolabia hagenbecki*)
- x 1972 Boorer, M.K. (in capt.; clockwise swimming; m165.)
- 1972 Cousteau, J. (pop. acc.)
- 1972 Pilson & Goldstein
- x 1973a Anon. (Guyana; weed control; 5, 17.)
- x 1973 Bertram & Bertram (distr. & status, 300, 316-321; econ. use, 321; captivity & weed control, 328-330.)
- x 1973 Valentry, D. (supposed reluctance to breed in capt.; 290-291.)
- x 1974 Bartmann, W. (in capt.; skin disease; 13-16.)
- x 1974 Bertram, G.C.L. (conservation; 7, 13, 19.)
- x *1974a Hartman, D.S. (USA; distr., status, conservation; 1-247.)
- x *1974 Mondolfi, E. (Venezuela; 6-22.)
- x 1974a Spurgeon, D. (Guyana; weed control; 238-239.)
- x 1974 Tabuchi et al. (skin fungus; 127-134.)
- x 1974 Webb, S.D. (Pleist., Florida; 18.)
- x 1975b Anon. (Florida; conception & birth in capt.; 6-7.)
- x 1975d Anon. (near Lake Pontchartrain, Louisiana; 20.)
- x 1976a Anon. (Bahamas; 8.)
- x 1976 Campbell, H.W. (gen. acc.; 1, 3-6.)
- x 1976 Collard et al. (Pensacola Bay, Florida; 48.)
- x 1976 Odell, D.K. (southern Florida; aerial survey; 203-206, 212.)
- x 1976 Reynolds, J.E., III (Florida; behavior, popular misconceptions, & conservation; 209-214.)
- x 1976 Wray, P. (pop. acc.; 13-15.)
- x 1977 Browne & Lee (North Carolina; interview survey; 40.)
- x 1977 Campbell & Irvine (Florida; feeding ecology; 249-251.)
- x 1977 Campbell, H.W. (North Carolina; 396-397.)
- 1977 Ernst, C.H. (in key)
- x 1977 Van Bree & Duguay (Guyana & Cuba; 292.)
- x *1977 Whitehead, P.J.P. (Brazil; early accounts & former southern distr.; 165-179, 184-185.)
- x 1977 Whitmore & Gard (comp. w/ HG; 11.)
- 1977 Ernst, C.H.

- 1978 Belitsky & Belitsky (Dominican Republic)
- x 1978 Campbell & Gicca (Mexico; status & distr.; 257-264.)
- x 1978a Domning, D.P. (myology, comp. w/ TI; 5, 8-57, 68-71.)
- x 1978b Domning, D.P. (comp. w/ N. Pacific sirs., 23, 116, 123, 125, 129, 131; possible Greenland record, 138-139.)
- x 1978c Domning, D.P. (m578.)
- x 1978 Irvine & Campbell (southeastern USA; aerial census; 613-617.)
- x 1978 Odell et al. (Bahamas; 289-293.)
- x *1978 Powell, J.A., Jr. (eating fish; 442.)
- x *1978 Whitehead, P.J.P. (Brazil; early accounts & former southern distr.; 497-506.)
- x 1979 Barrett, S.K. (Florida; mortality in flood-control dams; 26.)
- x 1979 Bengtson & Magor (Belize; aerial survey; 230-232.)
- 1979 Graham, F., Jr.
- x *1979 Hartman, D.S. (Florida; ecology & behavior; i-viii, 1-153.)
- 1979 Janson, T.
- x 1979 Klein, E.H. (Honduras; status & distr.; 21-28.)
- x 1979 Leatherwood, S. (Indian & Banana Rs., Florida; aerial survey; 47-48, 52-56, 58.)
- x 1979 Odell & Reynolds (southern Florida; mortality; 572-577.)
- 1979 Odell, D.K. (Everglades National Park, Florida)
- x 1979 Reynolds, J.E., III (Florida; behavior; pop. acc.; 44-53.)
- x 1979 Twiss, J.R., Jr. (Florida; conservation; pop. acc.; 10-17.)
- 1980 Barile, D.D. (Florida; conservation)
- x 1980 Belitsky & Belitsky (Dominican Republic; 313-319.)
- x 1980 Bullock et al. (sound production, comp. w/ TI; 130, 132.)
- x 1980 Dekker, D. (birth & behavior in capt.; 21-26.)
- x 1980 Inuzuka et al. (m640.)
- x 1980 Irvine et al. (Florida; clinical parameters; 2-10.)
- x 1980 Kurtén & Anderson (Pleist., North America; 341-342.)
- x 1980 Miller et al. (tooth replacement; 128A.)
- x 1980 Ohtomo et al. (clotting & clumping-factor reactions of plasma; 261-266.)
- 1980 Patton, G.W. (Tampa Bay, Florida)
- x 1980a Sleeper, B. (Florida; pop. acc.; 42-47.)
- x 1980 Telander, R. (Florida; pop. acc.; 28-35.)
- x 1981a Anderson, P.K. (behavior, comp. w/DD; 642-644.)
- x 1981 Asper & Searles (Florida; captive husbandry; 121-127.)
- x 1981 Beck et al. (Florida; mortality, 1978; 76-85.)
- x 1981 Best, R.C. (diet & nutrition; 3-13, 15, 17-24.)
- x 1981a Beusse et al. (Florida; mortality, 1974-77; 98-101.)
- x 1981b Beusse et al. (Florida; treatment of injuries; 111-120.)
- x 1981a Blair, D. (Florida; parasitic flukes; 13.)
- x *1981 Brownell & Ralls (Florida; workshop proceedings; 1-154.)
- x *1981 Brownell, Ralls & Reeves (Florida; review; 3-16.)
- x 1981 Campbell & Irvine (Florida; winter mortality, 1976-77; 86-91.)
- x 1981 Cardeilhac et al. (Florida; captive rearing of orphans; 141-146.)
- x 1981 Domning & Myrick (bone histology; 205-206.)
- x 1981a Domning, D.P. (Brazil; distr. & status; 85-97.)
- x 1981 Gunter & Corcoran (Mississippi; 97-99.)
- x 1981 Irvine et al. (Florida; mortality, 1974-77; 67-75.)
- x 1981 Jenkins, R.L. (Florida; captive husbandry; 128-130.)
- x 1981 Odell et al. (organ weights & sexual maturity; 52-65.)
- x 1981 Odell, D.K. (Florida; growth in capt.; 131-140.)
- x 1981 Powell & Waldron (use of Blue Spring, Florida; 41-51.)
- x 1981 Powell et al. (Puerto Rico; status & distr.; 642-646.)
- x 1981 Powell, J.A., Jr. (use of Crystal R., Florida; 33-40.)
- x *1981a Reynolds, J.E., III (Blue Lagoon, Miami; behavior; 233-242.)
- x *1981b Reynolds, J.E., III (Blue Lagoon, Miami; social behavior; 431-451.)
- x 1981c Reynolds, J.E., III (Miami; behavior & effects of human activities; 25-32.)
- 1981d Reynolds, J.E., III (digestive tract)
- x 1981 Rose, P.M. (Florida; aerial survey at power plants, 1977-78; 22-24.)
- x 1981 Schad et al. (Panama Canal; 1-4.)
- 1981 Shane, S.H. (Brevard Co., Florida; use of power-plant effluents)
- x 1981 Sleeper, B. (Florida; pop. acc.; 16-20.)
- x 1981 Smith, N.J.H. (Brazil; m184.)
- x 1981 Sprent, J.F.A. (nematode *Heterocheilus tunicatus*; 310, 312.)
- x 1981 Villa-R. & Colmenero-R. (southeastern Mexico; status; 703-707.)
- x 1981 Zeiller, W. (Florida; captive husbandry; 103-110.)
- x 1982 Beck et al. (Florida; analysis of propeller wounds; 531-535.)
- x 1982 Bengtson, J.L. (St. Johns R., Florida; ecology & behavior; 4668.)
- x 1982 Best & Teixeira (Amapá, Brazil; distr., status, hunting, natural history; 41-47.)

- x 1982 Bonde, R.K. (Florida; accidental mortality; pop. acc.; 3-5.)
- x 1982 Bullock et al. (auditory evoked potentials; 547-554.)
- x 1982 Cohen et al. (retinal photoreceptors; 197-202.)
- x 1982a Domning, D.P. (Brazil; commercial exploitation; 122-124.)
- x *1982b Domning, D.P. (evolution; 600, 603-616.)
- x 1982 Domning, Morgan & Ray (Pleist., Waccasassa R., Florida, 18; rostral deflection & diet, 62.)
- x 1982 Domning, Rice et al. (distr. & status; 305-306.)
- x 1982 Eberhardt, L.L. (Florida; censusing methods; 1-18.)
- x 1982 Fairbairn & Haynes (Jamaica; aerial surveys; 289-293.)
- x 1982 Fletemeyer, J. (Florida; sonar monitoring; 296-299.)
- x 1982 Irvine et al. (western Florida; aerial surveys; 621-630.)
- x 1982 Kleinschmidt, A. (body proportions, 375; pelvis, 390-391.)
- x 1982 Medway, Black & Rathbun (hematology; 11-15.)
- x 1982 Michelson, R.C. (Florida; automated radiotracking; 79-85.)
- x 1982 Montgomery et al. (Panama Canal; possible entry into Pacific Ocean; 257-258.)
- 1982 Odell, D.K.
- x 1982 Olsen, S.J. (identification of bones from archeological sites; 8, 41-42, 54, 56-57, 62, 66, 70, 75, 90.)
- x *1982 Rathbun et al. (distr. north of Florida; 152-165.)
- x 1982 Rattner, D. (Florida; pop. acc.; 29-31.)
- x 1982 Reynolds & Krause (duodenum; 33-40.)
- x 1982 Scott & Powell (Florida; commensal feeding by herons; 215-216.)
- x 1982 Steel & Morris (vocalizations; 925.)
- x *1982 Werzinger, J. (birth in capt., Nuremberg; 34-37.)
- x 1982 Wing & Reitz (Caribbean; at archeological sites; 16, 24.)
- x *1983 Bengtson, J.L. (Florida; food consumption in wild; 1186-1192.)
- x *1983 Bonde et al. (salvage & necropsy manual; i-v, 1-175.)
- x *1983 Bradley et al. (hypothetical use by Olmecs; 1-82.)
- 1983 Brooks, J.D.
- x 1983 Buergelt & Bonde (Florida; toxoplasmic meningoencephalitis; 1294-1296.)
- x 1983a Domning, D.P. (tooth replacement; pop. acc.; 8, 10-11.)
- x 1983 Gunter & Perry (Mississippi; 513.)
- x *1983 Irvine, A.B. (metabolism & distr. in Florida; 315-334.)
- x 1983 Kinnaird & Valade (Jacksonville, Florida; use of power-plant refugia; 1-63.)
- x *1983a Kinnaird, M.F. (northeastern Florida; aerial census; 1-56.)
- x 1983b Kinnaird, M.F. (Florida; strategies to reduce boat-related mortality; 1-19.)
- x 1983c Kinnaird, M.F. (Florida; causes of boat-related mortality; 1-41.)
- x *1983 Kochman et al. (Crystal R., Florida; temporal & spatial distr.; 69-124.)
- x 1983 O'Shea, T.J. (Crystal R., Florida; potential herbicide hazards; 159-173.)
- x *1983 Packard & Mulholland (Florida; aerial surveys, 1977-82; 1-119.)
- x 1983 Packard & Nichols (Florida; sample sizes required for mark-recovery studies; 1-14.)
- x 1983 Packard et al. (St. Johns R., Florida; aerial survey; 1-10.)
- 1983a Packard, J.M. (Crystal R., Florida)
- *1983b Packard, J.M. (Crystal R., Florida)
- x 1983 Puckett, C. (Citrus Co., Florida; public attitudes; 321-346.)
- x 1983 Rathbun et al. (Honduras; status; 301-308.)
- x 1983a Shane, S.H. (Florida; use of warm-water sources; pop. acc.; 40-44.)
- x 1983b Shane, S.H. (Brevard Co., Florida; abundance, distr., & movements; 1-9.)
- x 1983 Sprent, J.F.A. (nematode *Heterocheilus tunicatus*; 69, 73-74.)
- x 1983 Steel, C. (vocalizations; gen. acc.; 3160-3161.)
- x 1983 Tiedemann, J.A. (Turkey Creek, Florida; behavior & use of creek; 1-8.)
- x 1983 Wall, W.P. (bone density & aquatic adaptations; 197, 201-204.)
- x 1983 Wilkins, K.T. (Pleist., Florida; 70, 76-77, 79.)
- x 1984 Bazzini et al. (hemopoiesis in vertebral bodies; 19.)
- x 1984 Buergelt et al. (Florida; pathology; 1331-1334.)
- x 1984 Buergelt, C.D. (Florida; mortality, 1980-83; 28-29.)
- 1984 Colmenero-R., L.C. (Mexico)
- x 1984 Cornide, R.I. (Cuba; blood antibodies; 1.)
- x 1984 DiPerna, P. (Florida; captive breeding; pop. acc.; 16-17.)
- x 1984 Domning & Hayek (Florida; tooth wear & replacement; 121, 125.)
- x 1984b Domning, D.P. (Maryland & Virginia; pop. acc.; 5-6.)
- x 1984 Hall, A.J. (Florida; photos; 400-413.)
- x 1984 Irvine & Scott (Florida; development of marking techniques; 12-26.)
- x 1984 Lewis et al. (Florida; feeding on algae; 189-191.)
- x 1984 Lomolino & Ewel (digestive efficiencies; 176-179.)
- 1984 Manzij & Pilipshuk
- x 1984 Marsh, Heinsohn & Marsh (reproduction, comp. w/DD; 771, 781, 784.)

- x 1984 O'Shea et al. (Florida; contaminant concentrations; 741-748.)
- x 1984 Packard, Frohlich et al. (Ft. Myers, Florida; abundance, 1983-84; 1-63.)
- x 1984a Packard, J.M. (Florida; impact on seagrass beds; 21-22.)
- x 1984b Packard, J.M. (review of marking techniques; 1-29.)
- x *1984 Powell & Rathbun (northern Gulf of Mexico; 1-28.)
- x 1984 Rainey et al. (molecular systematics; 586-587.)
- x 1984 Reynolds & Ferguson (Dry Tortugas; implications for salinity tolerance; 187-189.)
- x 1984 Riemer, D.N. (weed control; 138-141.)
- x 1984 Schmitz & Lavigne (intrinsic rate of increase vs. body size & metabolic rate; 307-308.)
- x 1984 Shane, S.H. (Brevard Co., Florida; use of power-plant effluents; 180-187.)
- 1984 Sleeper, B.
- x 1984 Snipes, R.L. (cecum; 67-78.)
- x 1984 Watters et al. (Barbuda; archeological site; 404, 406-407, 409.)
- x 1984 White, Francis-Floyd & Waterstrat (in capt., Miami; growth rates; 30-34.)
- x 1984a White, J.R. (births & breeding in capt.; pop. acc.; 414-418.)
- x 1984b White, J.R. (Florida; birth & breeding in capt., & release; 369-375.)
- x 1985 Bengtson & Fitzgerald (Florida; vocalizations & behavior; 816-819.)
- x 1985 Etheridge et al. (Florida; aquatic plant consumption; 21-25.)
- x 1985 Kochman et al. (Crystal R., Florida; temporal & spatial distr.; 921-924.)
- x 1985 Mackay-Sim et al. (vomeronasal organ absent; 186-194.)
- x 1985 Muizon & Domning (comp. w/ indeterminate Peruvian sir.; passage through Panama Canal; 209.)
- x 1985 O'Shea, Beck et al. (Florida; mortality, 1976-81; 1-11.)
- x 1985 O'Shea, Rathbun et al. (Florida; no evidence for capture myopathy; 335-349.)
- x 1985 Packard, Frohlich et al. (Ft. Myers, Florida; use of power plant, 1984-85; 1-20.)
- x 1985a Packard, J.M. (aerial survey techniques; i-vi, 1-68.)
- x 1985b Packard, J.M. (population model; 1-19.)
- x 1985 Packard, Summers & Barnes (St. Johns R., Florida; aerial survey; 347-351.)
- x 1985 Qiu Y.-X. (in capt., Beijing; 35-36.)
- x 1985 Ralph et al. (pineal body absent; 55-60.)
- x 1985 Rathbun, Woods & Ottenwalder (Haiti; status & distr.; 234-236.)
- x 1985 Reynolds & Wilcox (TML; Florida; use of power-plant refugia, 1982-83; 413-422.)
- x 1985 Rowlatt & Marsh (heart & great vessels; 95-106.)
- x 1986 Bazzini et al. (hemopoiesis in vertebral bodies; 150-152.)
- x 1986 Burn, D.M. (digestion & digestive efficiency; 139-142.)
- x *1986 Colmenero-R. & Hoz-Z. (Mexico; distr., status, ecology, conservation; 955-1020.)
- x *1986 Domning & Hayek (morphological variation; 87-144.)
- x 1986 Kinnaird, M.F. (South Carolina; pop. acc.; 6-10.)
- 1986 Ness, P.S.
- x 1986 O'Shea, T.J. (Florida; feeding on acorns; 183-185.)
- x *1986 Packard & Wetterqvist (northwestern Florida; habitat; 279-310.)
- x 1986 Packard et al. (Ft. Myers, Florida; aerial survey; 265-275.)
- 1986 Patton, G.W. (Florida)
- x 1986 Reynolds & Wilcox (TML; Florida; use of power-plant refugia, 1984-85; 103-113.)
- x 1986 Shoshani et al. (immunologically related to proboscideans; 431-436.)
- x 1986 Sleeper, B. (Florida; pop. acc.; 86-99.)
- *1986 Sokolov, V.E. (Cuba; morphology)
- x 1986 Steininger, F.F. ("*Trichechinus*"; St. Lucia; archeological site; 42, 74, pl. 7.)
- x 1986 Watson & Bonde (malformations of flippers; 294-301.)
- x *1987 Bergey & Baier (lung mechanical properties; 63-75.)
- x 1987c Domning, D.P. (Florida; fossil record; pop. acc.; 1-2.)
- x 1987 Elias et al. (lipids in epidermis; 161-177.)
- x 1987 Estrada & Ferrer (western Cuba; distr. & status; 1-12.)
- x 1987 Mossman, H.W. (fetal membranes; 267-269.)
- 1987 Patton et al. (Florida)
- x 1987 Reynolds & Wilcox (Florida; use of power-plant refugia; pop. acc.; 263-269.)
- x 1987 Sleeper, B. (Florida; pop. acc.; 18-22.)
- x 1987 Walsh et al. (Florida; omphalitis & peritonitis; 702-704.)
- x 1987 Wootton, J.T. (body mass & age at first reproduction; m748.)
- 1988b Anon. (Georgia; pop. acc.)
- 1988c Anon. (pop. acc.)
- x 1988 Assis et al. (chromosomes, comp. w/ TI; 48-49.)
- *1988 Beeler & O'Shea (southeastern USA; distr. & mortality)
- x 1988 Bulman, P. (Florida; boat kills & law enforcement; 23.)
- x 1988 Carowan, G. (Florida; rehabilitation & release; in

- capt., Epcot Center, Orlando; 5.)
- x 1988 Dailey et al. (Florida; boat kill, parasites; 159.)
- x 1988 Fischer, M.S. (ear anatomy; 365-379.)
- 1988 Nabor & Patton (Florida)
- x 1988 O'Shea et al. (Venezuela; distr., status, traditional significance; 281-301.)
- x 1988 Provancha & Provancha (Banana R., Florida; abundance & distr.; 323-338.)
- x 1988 Rathbun, G.B. (Florida; aerial survey methods; 71-75.)
- 1988 Reynolds & Gluckman (Florida; conservation)
- 1988 Reynolds & Wilcox (Florida; aerial surveys)
- 1988 Silverberg & Morris (Florida; winter diet)
- 1988 Wilhelm et al. (Florida; scar patterns)
- 1988 Colmenero-R., L.C. (Quintana Roo, Mexico)
- x 1989 Buffrénil & Schoevaert (pachyostosis, comp. w/ DD; 2107, 2113, 2116, 2118.)
- 1989 Coy Otero, A. (Cuba; trematode *Chiorchis gro-schaftii*)
- x 1989 Hill & Reynolds (kidney; 53-56.)
- x 1989 Hulbert & Morgan (Early Pleist., Florida; 11.)
- x 1989 Lazcano-B. & Packard (Tamaulipas, Mexico; 202-205.)
- x *1989 Lefebvre et al. (distr., status, & biogeography; 567-609.)
- x 1989 Maluf, N.S.R. (kidney; 269-286.)
- x 1989 Palmer, D. (Georgia; construction of artificial warm-water refugium; 7.)
- x 1989 Perrin & Kashiwada (specimen at La Jolla, Calif.; 17.)
- x 1989b Preen, A. (sexual behavior, comp. w/DD; 382, 386.)
- 1990 Buckingham, C.A. (Florida; response to disturbance)
- x 1990 Fernandez & Jones (Texas; 103.)
- 1990 Morgan & Patton (Florida)
- 1990 Mou Sue et al. (Panama; distr. & status)
- x *1990 O'Shea & Reep (encephalization quotients & life history; 534-543.)
- x *1990 Rathbun et al. (Florida; distr. & movements; 1-33.)
- 1990 Reep & O'Shea (brain)
- x 1990a Turner, R.O. (Florida; new sanctuary established; 10.)
- x 1990b Turner, R.O. (Florida; legislation; 7.)
- x 1991 Chow, B.A. (digestion; pop. acc.; 36.)
- 1991 Colmenero-R., L.C. (Mexico; recovery plan)
- x 1991 Haigh, M.D. (Guyana; weed control; 339-349.)
- x 1991 Joeckel, R.M. (mandibular proportions; 463.)
- 1991 Kadel, Dukeman & Patton (western Florida; aerial surveys, 1988)
- 1991 Kadel, Morgan & Patton (western Florida; aerial surveys, 1990)
- x 1991 Lefebvre & Kochman (Florida; aerial survey methodology; 298-309.)
- x 1991 O'Shea & Salisbury (Belize; status & distr.; 156-164.)
- x 1991 Provancha & Hall (Florida; impact on seagrass beds; 87-98.)
- x 1991 Reid et al. (TML; Florida; distr. & movements; 180-190.)
- x 1991 Schweigert et al. (vitamin A, α -tocopherol, & lipid levels in plasma; 37.)
- x 1992 Borobia & Lodi (northeastern Brazil; distr. & conservation; 37-43.)
- 1992 Grubel da Silva, Paludo et al. (Paraíba, Brazil)
- 1992 Grubel da Silva, Soavinski et al. (Brazil; in capt.)
- x 1992 Hulbert, R.C., Jr. (Pleist., Florida; in checklist; 29.)
- x 1992 Marmontel et al. (reproductive biology; 295-312.)
- 1992 Morales V. & Olivera G. (Mexico; gen. acc.)
- x 1992 Ortiz et al. (Cuba; copepod *Harpactichechus manatorum* & peritrichid protozoan; 117-119.)
- 1992a Pinto de Lima et al. (Brazil; distr. & status)
- 1992b Pinto de Lima et al. (Brazil)
- x 1992 Shackley, M. (Florida; effects of tourism; 257-265.)
- x 1993 Suttly, L. (Caribbean; pop. acc.; 20-21.)
- x 1993 Turner & Buckingham (Kings Bay, Georgia; accidental mortality & manatee protection plan; 1, 10-11.)
- x 1994 Bruenderman & Terwilliger (Virginia; pop. acc.; 18-19.)
- Trichechus, Manatus, africanus* Oken, 1816 (= *Trichechus senegalensis*)
- *1816 Oken, L. (new subspecies)
- x 1934 Hatt, R.T. (syn. of *T. senegalensis*; 536, 538.)
- x 1982 Kleinschmidt, A. (syn. of *T. senegalensis*; 382.)
- Trichechus manatus australis* Gmelin, 1788 (= *Trichechus manatus*, in part; *Trichechus senegalensis*, in part)
- *1788 Gmelin, J.F. (new subspecies)
- x 1801 Stewart, C. ("*Trichechus*"; m85.)
- x 1817 Stewart, C. ("*Trichechus*"; m125.)
- x 1887 Roviroso, J.N. (syn. of *Manatus australis*; m356.)
- x 1934 Hatt, R.T. (syn. of *T. senegalensis* in part; 535, 537.)
- x 1961 Cabrera, A. (syn. of *T. m. manatus* in part; 310.)
- x 1978b Domning, D.P. (m138.)
- x 1982 Kleinschmidt, A. (syn. of *T. senegalensis*; 382.)
- Trichechus manatus borealis* Gmelin, 1788 (= *Hydrodamalis gigas*)
- *1788 Gmelin, J.F. (new subspecies)
- x 1794 Link, H.F. (in classification; 40-41.)
- x 1801 Stewart, C. ("*Trichechus*"; m85.)
- x 1817 Stewart, C. ("*Trichechus*"; m125.)
- x 1825a Harlan, R. (m279.)

- x 1900 Anchieta, J. de (used as name of TM & TI [lapsus for *T. m. australis*]; Brazil; gen. acc.; 11–12.)
- x 1925 ICZN (syn. of *Hydrodamalis [gigas]*; 38.)
- x 1934 Hatt, R.T. (syn. of *Rhytina borealis*; m535.)
- x 1978b Domning, D.P. (syn. of *Hydrodamalis gigas*; 75, 92, 138.)
- x 1982 Kleinschmidt, A. (syn. of *Rhytina gigas*; 383.)
- Trichechus manatus koellikeri* (Kükenthal, 1897) Kleinschmidt, 1982 (= *Trichechus manatus manatus*)
- x *1982 Kleinschmidt, A. (n.comb.; distr., 381; tail shape, 407–408.)
- x 1986 Domning & Hayek (syn. of *T. m. manatus*; 89.)
- Trichechus manatus latirostris* (Harlan, 1824) Hatt, 1934
- 1575 SEE Fontaneda, H., 1854.
- v 1791 Bartram, W.
- xv 1869 Brinton, D.G. (Indian R., Florida; 50–51.)
- xv 1874a Anon. (St. Augustine, Florida; 276.)
- xv 1874b Anon. (escape behavior; 446.)
- xv 1889 Scammon, C.M. (in capt., Key West; pop. acc.; 581–582.)
- xv 1891 Stuart, H.V. (meat sold as beef; 137.)
- xv 1892 Wright, J.McN. (Santa Lucia R., Florida; pop. acc.; 291–296.)
- xv 1898 Anon. (Florida; hunting by Seminole Indians; 102.)
- xv 1905 Townsend, C.H. (in capt., New York; 91, 94, 97.)
- xv 1907 Dimock, A.W. (Florida; capture; 848–853.)
- xv 1907 Townsend, C.H. (in capt., New York; 86.)
- xv 1908a Anon. (Ocean View, Virginia; 532.)
- xv 1908b Anon. (in capt., New York; 427.)
- xv 1908 Duncan, J.F. (Ocean View, Virginia; 611–612.)
- xv 1909 Graham, S.C. (in capt., Indian R., Florida; 413.)
- xv 1910 Packard, W. (St. Lucie & Indian Rs., Florida; 144–145.)
- xv 1922 Swanton, J.R. (Florida; hunting by Indians; 389.)
- xv 1931 Brimley, H.H. (North Carolina; 320–321.)
- x *1934 Hatt, R.T. (new rank; distr., 538; skeleton, 539–554, 560–561.)
- xv *1937 Barbour, T. (birth in capt., Miami; 106–107.)
- xv 1940 Cahn, A.R. (Florida; winter mortality; 222–223.)
- x 1941a Gunter, G. (distr.; 60–64.)
- x 1941b Gunter, G. (Mexico, Texas, Louisiana; 12–13.)
- x 1942 Gunter, G. (distr.; 89–90.)
- x 1943 Krumholz, L.A. (Florida; 272–273.)
- x 1943 Lowery, G.H., Jr. (Louisiana; 253–254.)
- xv 1944 Barbour, T. (Miami area, Florida; 98–99, 166–167.)
- x 1946 Moore, J.C. (Putnam Co., Florida; 58.)
- xv 1946 Swanton, J.R. (Florida; hunting by Indians; 250, 282, 297–298, 329.)
- xv 1949 Sprunt, A., Jr. (pop. acc.; 286–288, 337.)
- xv 1949 Trumbull, S. (Florida; pop. acc.; 337.)
- x 1949 Vieira, C.O.C. (m268.)
- xv *1950 McAtee, W.L. (Virginia; 98–99.)
- x *1951a Moore, J.C. (Florida, distr., 1–15; distinguishing characters, 16–18.)
- x *1951b Moore, J.C. (Florida Everglades; natural history; 22–36.)
- x 1952 Anon. (in capt., Florida; pop. acc.; 129–130.)
- x 1953 Moore, J.C. (distr. & behavior; 120–122, 153, 156.)
- x 1954 Lawrence, J.E. (pop. acc.; 401–404.)
- 1954 Moore, J.C.
- x 1955 Miller & Kellogg (synonymy; 791.)
- xv 1956 Loftin, H. (pop. acc.; 350.)
- x *1956 Moore, J.C. (behavior; 1–23.)
- x 1956 Tomkins, I.R. (Georgia; 288–289.)
- xv 1957 Burton, M. (summary of Moore [1956]; 272.)
- x 1957 Moore, J.C. (birth in capt.; 137–138.)
- xv 1958 Fichter, G.S. (pop. acc.; 31–35.)
- xv 1958 Loftin, H. (respiration; pop. acc.; 256.)
- xv 1958 Savory, B. (in capt., London; m257.)
- x 1960 Funderburg, J.B. (Pleist. & Recent, North Carolina; 521.)
- x 1960 Hutton & Sogandares (trematode *Chiorchis fabaceus*; m290.)
- x 1963 Alvarez, T. (Tamaulipas, Mexico; “probably extirpated”; 465.)
- 1963 Bertram, G.C.L.
- xv 1964a Anon. (Florida; weed control; 29–30.)
- x 1964 Humes, A.G. (parasite *Harpacticus pulex*; 517–518, 528.)
- xv 1964 Lapham, L.H. (Florida; weed control; 38–39.)
- xv 1964 Moore, J.C. (behavior; 7–8.)
- 1965 Hanström, B.
- x 1965 Layne, J.N. (Florida; 131, 133, 166–168.)
- x 1965 Schevill & Watkins (vocalizations; 373–374.)
- x 1966 Kellogg, R. (comp. w/*Metaxytherium calvertense*; 88.)
- xv 1967 Anon. (Florida; weed control; pop. acc.; 33–35.)
- x 1967 Browder, J. (conservation; weed control; 3–5, 34.)
- xv 1967 Truslow & Vosburgh (Florida Everglades; 537–538.)
- xv 1968 Betz, J.J. (Florida; captive breeding scheme, ca. 1893; 204–209.)
- 1968 Blackburn & Andres
- x 1968 Rice & Scheffer (distr.; 6.)
- xv 1968 Van den Bergh, H. (longest dive 16 min. 20 sec.; m451.)
- x 1969 Hartman, D.S. (behavior; gen. acc.; 342–353.)
- x 1970 Evans & Herald (vocalizations, comp. w/ TI; 820, 822–823.)
- 1970 Kaiser & Schröpfer
- x 1970 Radhakrishnan & Bradley (in capt., Tampa, Florida; parasites *Chiorchis fabaceus* & *Plicato-*

- labia hagenbecki*; 59.)
- x 1971b Banks da Rocha, N. (Brazil [!]; 133.)
- xv 1971a Barada, B. (Crystal R., Florida; pop. acc.; 18-23.)
1971 Hartman, D.S.
- x 1971 Jones, M.L. (in capt.; 85.)
- xv 1972a Anon. (Florida; "played with" by porpoises; 4.)
- xv 1972 Caldwell & Caldwell (mating, 446-448; play, 450; diet in capt., 454.)
- xv 1972a Hartman, D.S. (Florida; status & behavior; 20-22.)
- v 1972b Hartman, D.S.
- x 1974a Anon. (Blue Spring, Florida; refuge established; 10.)
1974 Shawver, L.J.
- xv 1975c Anon. (Florida Everglades; "bloated" manatees; 5.)
- x 1975 Forrester et al. (intussusception, pesticides, parasites; 566-568.)
- xv 1975 Lynd, W. (Miami, Florida; rescue & rehabilitation; 28-29.)
- xv 1975 Weber, T., Jr. (Florida; harpooning from bridges; 66-67.)
- xv 1975 Wray, P. (South Carolina; pop. acc.; 21-22.)
- x 1976 Campbell, H.W. (m1.)
- x 1976 Reed, J. (Florida; in artificial lake; m12.)
- x *1976 White et al. (blood chemistry, karyotype; 413-417.)
- x 1977 O'Keefe, M.T. (Florida; pop. acc.; 65, 67.)
1977 White et al. (chromosomes)
- xv 1978 Harper, H. (Florida; release of captives; 12.)
- x 1978 Stewart, D. (conservation; pop. acc.; 113-118.)
- x 1979 Bachman & Irvine (milk composition; 873-878.)
- x 1979 Farmer et al. (blood chemistry, comp. w/ TI; 231, 234-235, 237.)
- x 1979 Forrester et al. (parasites; 5.)
- xv 1979 Harper, H. (Blue Spring, Florida; news reporting; 16.)
- xv 1980 Abrahamson, D. (Crystal R., Florida; pop. acc.; 92-94, 96, 98-99, 104.)
- xv 1980a Anon. (conservation; pop. acc.; 49.)
- xv 1980b Anon. (Florida; pop. acc.; 97-98, 100.)
- x 1980 Banks da Rocha, N. (in key; thought to occur in Brazil; 147-148.)
- xv 1980 Burton, B. (Chesapeake Bay; possible sighting; 19, 40-41.)
- x 1980 Cumbaa, S.L. (Florida; archeological sites; 6, 8-9.)
- x 1980 Domning, D.P. (food position preference; 544-547.)
- xv 1981 Bingham, B. (Florida; drinking fresh water; pop. acc.; 90-91.)
- x 1981 Gunter & Corcoran (subspecific distinctness unlikely; 97-98.)
- xv 1981 Miller, R.R. (New Jersey; netting; m53.)
- x 1981 Sprent, J.F.A. (nematode *Heterocheilus*; 312.)
- xv 1982 Bradford, D. (Florida; conservation; public opinion survey; 9.)
- 1982 Colmenero-R., L. (gen. acc.)
- xv 1982 Dick, T.M. (Florida; pop. acc.; 19-22.)
- x 1982 Kleinschmidt, A. (distr., 372, 380-381; tail shape, 408.)
- x *1982 Medway, Bruss et al. (blood chemistry; 229-234.)
- x 1982 Medway, Dodds et al. (blood coagulation; 120-127.)
- xv 1982 Milne & Milne (breeding & care of young; pop. acc.; 154-158.)
- xv 1982 Thiel, R. (Florida; pop. acc.; 4-7.)
- xv 1982 Waterlond, M. (Florida; use of power-plant effluents; pop. acc.; 94, 96.)
- xv 1983 Lew et al. (soluble class I molecule absent from serum; 279-280.)
- x 1983 Piggins et al. (eyes & vision, comp. w/ TI; 112, 122-126.)
- xv 1983 Rathbun, F. (Florida; museum exhibit; pop. acc.; 6-10.)
- xv 1985b Anon. (Florida; pop. acc.; 16, 18.)
- xv 1985 Walters, M.J. (Florida; pop. acc.; 171-172, 175-176.)
- x 1986 Colmenero-R. & Hoz-Z. (Mexican manatees ?intermediate between TMM & TML; 968.)
- x *1986 Domning & Hayek (morphological variation; taxon considered valid; 89, 112-126, 130.)
- x 1986 McLaren et al. (Florida; specimens in Carnegie Museum; 293-296.)
- x 1986a Pervaiz & Brew (milk proteins; 846-854.)
- x 1986b Pervaiz & Brew (milk composition; 357-360.)
1986 Teunissen & Altman (Florida; pop. acc.)
- xv 1987b Anon. (bottle-feeding of orphan; 225.)
- x 1988 Beck & Forrester (parasites; 628-637.)
- x 1988 Hurst & Beck (Florida; techniques for dietary analysis; 1, 114-115.)
- x 1988 Kuroki et al. (gallbladder bile salts; 509-522.)
- x *1988 McClenaghan & O'Shea (genetic variability; 481-488.)
- x *1988a O'Shea, T.J. (southeastern USA; review of past & present distr., abundance, & mortality, & future prospects; 184-204.)
1988b O'Shea, T.J. (east coast of Florida; research efforts)
- xv 1989a Anon. (Florida; drinking from hose; 187.)
- x 1989 Baugh et al. (Florida & Georgia; feeding on *Spartina*; 88-90.)
- x 1989d Domning, D.P. (comp. w/*Xenosiren yucateca*; 430.)
- x *1989 Lefebvre et al. (distr., status, biogeography; 568, 576-579, 590-591, 599, 603-604.)
- xv 1989 Lewis, T.A. (Florida; boat mortality; pop. acc.; 42-49.)
- x 1989 Packard et al. (Florida; response to interruption of thermal effluent; 692-700.)
- v 1989 Patton et al. (Port of the Islands, Florida)
- 1989 Reep et al. (cerebral cortex)

- x 1989 Reid & O'Shea (Florida & Georgia; satellite transmitters; 217-232.)
- x 1989 Upton et al. (Florida; protozoans *Eimeria* spp.; 87-90.)
- xv 1989 Walsh, K. (Florida; children's article; 2-9.)
- x 1989 Yoshii et al. (bile alcohol; 1852.)
- x 1990 Buergelt et al. (TML; thickened heart valves; 220-227.)
- v 1990 Clark, M.G. (Florida; children's book)
- xv 1990a Domning, D.P. (Florida; feeding on seagrass rhizomes; 34-36.)
- v 1990 Gannon, F. (Florida; pop. acc.)
- 1990 Gilbrook, M.J. (Florida; conservation; Geogr. Information Systems applications)
- 1990 Houhoullis, P. (Florida; conservation; Geogr. Information Systems applications)
- 1990 Kautz, R.S. (Florida; conservation; Geogr. Information Systems applications)
- 1990 Marmontel et al. (age determination)
- 1990 O'Shea & Kochman (Florida; distr. & ecology in relation to Geogr. Information Systems)
- 1990 Osborn, R.G. (Florida; conservation; Geogr. Information Systems applications)
- *1990 Reynolds & Haddad (Florida; conservation; Geogr. Information Systems Workshop)
- 1990 Weigle & Haddad (Florida; conservation; Geogr. Information Systems applications)
- x 1991 Beck & Barros (Florida; impact of debris; 508-510.)
- x 1991 Domning & de Buffrénil (distr. of skeletal mass, 336-347, 362-363; pathological floating, 360.)
- v 1991 Kiely, J. (Florida; pop. acc.)
- xv 1991 Loerzel & Reep (Rindenkerne in cerebral cortex; 166-171.)
- x 1991 O'Shea et al. (mortality from red tide; 165-179.)
- 1992 Kadel & Patton (Florida; aerial surveys, 1985-90)
- xv 1992 Kadel, J. (Florida; "white" individual; 15-16.)
- x 1992 Ketten et al. (ear & hearing, 77-95; taste, 84, 92.)
- 1992 O'Shea & Ludlow
- *1992 O'Shea et al. (Florida; population biology; interim report of workshop)
- xv 1992 Simmons, N. (Florida; rehabilitation; pop. acc.; 9.)
- xv 1993 Bonde, R.K. (Florida; gen. acc.; 16-18.)
- x 1993 Bradley et al. (cytochrome b DNA sequence; 197-202.)
- x 1993 O'Keefe, M.T. (Florida; pop. acc.; 1-127.)
- Trichechus manatus manatus* Linnaeus, 1758, Hatt, 1934
- v *1507 Anon. (?earliest published description of a manatee)
- v 1550 Las Casas, B. de
- 1560 SEE Anchieta, J. de, 1799.
- 1566 SEE Landa, D. de, 1941.
- 1624 SEE C. de Lisboa in Walter, J., 1967.
- 1627 SEE Salvador, V. do, 1931?.
- xv 1665 Rochefort, C. de (Antilles; 194-195, 199.)
- xv 1666 La Barre, A. (Guianas; meat obtained by French, English, & Dutch, 14; m31.)
- xv 1667 Rochefort, C. de (Antilles; 391-394, 402.)
- xv 1743 Barrere, P. (French Guiana; 159-162, 1 pl.)
- xv 1763 Bellin, S. (Guianas; gen. acc.; 65-66, pl. 5.)
- xv 1769a Bancroft, E. (Guyana; gen. acc.; 186-187.)
- xv 1785 Bondaroy, A.D.F. de ("grand lamentein des Antilles"; hide; 30-32.)
- xv 1796 Stedman, J.G. (Suriname; "manatee," 1: 221, 2: 175-176; "mermaid," 2: 176-178.)
- xv 1801 Edwards, B. (West Indies; 1: 127.)
- xv 1805 Pitou, L.-A. (TMM; French Guiana; gen. acc.; 2: 259-260.)
- xv 1807 Bolingbroke, H. (Guyana; gen. acc.; 234.)
- xv 1821b Home, E. (Jamaica; comp. w/ DD; 390-391, pls. 26-29.)
- xv 1871 Myers & Myers (Orinoco R.; 102-103.)
- xv 1874 Estacio da Silveira, S. (Maranhão, Brazil; econ. use; 26-27.)
- xv 1875 Anon. (from Guyana; in capt., London; 295.)
- v 1888 Armas, J.I. de
- xv 1898 Kirke, H. (from Guyana; in capt., London; 134-135.)
- xv 1904 Wilcox, W.A. (Puerto Rico; netting; 387.)
- xv 1911 Gann, T.W.F. (Belize; archeological sites; 78, 82.)
- xv 1917 Rodway, J. (Guyana; "water mamma"; 491, 499.)
- xv 1920 Beebe, W. (Georgetown Botanical Gardens, Guyana; 730-732.)
- xv 1928 Cundall, F. (Jamaica; m139, 143.)
- xv *1929 Castro, E. de (?manatees; Pernambuco, Brazil, ca. 1526; 160.)
- x *1934 Hatt, R.T. (new subspecies; distr., 538; skeleton, 539-554, 560-561.)
- x *1935 Barrett, O.W. (Central America & West Indies; gen. acc.; 216-219.)
- xv 1937 Turner, J.P. (Guyana; photo; 498.)
- xv 1939 Wavrin, M. de (northern South America; hunting; 194-196.)
- xv 1940 Crouse, N.M. (West Indies; in 17th century commerce; 110.)
- x 1941a Gunter, G. (m60.)
- xv *1941 Landa, D. de ("TML"; Yucatan; hunting, 16th century; 190-191.)
- xv 1942 Morison, S.E. (Haiti, sighted by Columbus in 1493, 309-310; Cuba, caught with remoras in 1494, 457; Cuba, using freshwater springs, 459; Dominican Republic, caught in 1502, 592.)
- xv 1949 Sanderson, I.T. ("*Manatus* sp."; Suriname; 781.)
- x 1949 Vieira, C.O.C. (m268.)
- x 1951a Moore, J.C. (probable occurrence in Texas; distinguishing characters; 16-18.)
- x 1954 Lawrence, J.E. (m402.)

- x 1955 Miller & Kellogg (synonymy; 790.)
 xv 1956b Anon. (Puerto Rico; sound production; 39.)
 xv 1957 Pollock & Ray (Mayapan, Mexico; carved rib; 644, 653.)
 x 1959 Hershkovitz, P. (synonymy; 342.)
 xv 1960a Anon. (Guyana; weed control; 58.)
 x 1960 Ray, C.E. (Lesser Antilles; 412-413.)
 x 1961 Cabrera, A. (South America; synonymy & distr.; 310-311.)
 x 1962 Bertram & Bertram (Guyana; conservation & weed control; 1329.)
 x 1963 Bertram & Bertram (Guyana; status & econ. use; 90-93.)
 *1963 Bertram, G.C.L. (Guyana; gen. acc.)
 xv 1963 Hofmeister, M. (from Guyana; in capt., Toledo, Ohio; 12.)
 x *1964a Bertram & Bertram (Guyana; 115-120.)
 x *1965 Lluch B., D. (Mexico; natural history, methods of capture; 405-419.)
 xv 1965 Ruschi, A. ("*T. inunguis*"; Espirito Santo, Brazil; 30.)
 x 1967 Browder, J. (m5.)
 x 1967 Feriz, H. (comp. w/ clay sculpture of TI; 373-374.)
 x 1968 Charnock-Wilson, J. (Belize; 293-294, pls. 13-14.)
 x 1968 Gewalt, W. (in capt., Duisburg, Germany; 123-125.)
 x 1968 Rice & Scheffer (distr.; 6.)
 x 1970 Charnock-Wilson, J. (Belize; 236.)
 x 1971a Banks Da Rocha, N. (Brazil; 101-103.)
 x 1971b Banks Da Rocha, N. (Brazil; 133.)
 x 1971 Jones, M.L. (in capt.; 85.)
 x 1972 Coimbra-Filho, A.F. (possible occurrence in Brazil; 83-84.)
 x 1973 Sonoda & Takemura (vocalizations; 19-24.)
 x 1974a Dekker, D. (Suriname; 4 captured; 68.)
 x 1974b Dekker, D. (Suriname; gen. acc.; 1-3.)
 1974 Jhingran & Gopalakrishnan
 xv 1974 Sanger, C. (Guyana; weed control; captive breeding; 23.)
 xv 1974b Spurgeon, D. (Guyana; weed control; 10-11.)
 x 1975 Kirkpatrick & Cartwright (Belize; m139.)
 x 1975 Pinto da Silveira, E.K. (in capt., Brazil; 223-226.)
 x 1976 Loveland, F.O. (Nicaragua; hunting, ritual, & symbolic significance; 70-82.)
 x 1977a Domning, D.P. (myology, comp. w/ DD; 2-26.)
 x *1978 Husson, A.M. (Suriname; distr., natural history; 334-339, pls. 90-91.)
 x 1980 Banks da Rocha, N. (in key; 147-148.)
 x 1981 Gunter & Corcoran (subspecific distinctness unlikely; 97-98.)
 x 1982a Anon. (Paraíba, Brazil; 3.)
 x 1982 Kleinschmidt, A. (m372, 380-381.)
 x 1982 Sylvestre & Barloy (gen. acc.; 62-63.)
 x *1984 Colmenero-R., L.C. (Mexico; distr. & status; 243-254.)
 x 1984 Galantsev & Mukhametov (cardiac rates & respiration; locations of venous sinuses; 201-205.)
 x *1985 McKillop, H.I. (Caribbean & Maya areas; prehistoric exploitation; 337-353.)
 x 1986 Colmenero-R. & Hoz-Z. (Mexican manatees ?intermediate between TMM & TML; 968.)
 x *1986 Colmenero-R., L.C. (Mexico; diet, seasonal movements, seasonal breeding; 589-602.)
 x *1986 Domning & Hayek (morphological variation; taxon considered valid; 89, 112-126, 129-130.)
 x *1989 Lefebvre et al. (distr., status, biogeography; 567-609.)
 1990 Colmenero-R. & Zárata (Quintana Roo, Mexico)
 1990 Freeman & Quintero (Puerto Rico; distr.)
 xv 1991b Anon. (Brazil; conservation; 221.)
Trichechus manatus senegalensis (Link, 1795) Vieira, 1949
 x *1949 Vieira, C.O.C. (new rank; m268.)
Trichechus manatus siren Kerr, 1792 (Steller's "sea-ape"; nomen nudum)
 *1792 Kerr, R. (new subspecies)
 1806 Turton, W.
 1894 Rhoads, S.N. ("*Trichechus siren*")
Trichechus pilosus, Shaw, 1800 (not a binominal name; = *Trichechus senegalensis*)
 *1800 Shaw, G.
 x 1809a Cuvier, G. ("trichecus"; name considered inappropriate; 294-295.)
Trichechus senegalensis Link, 1795
 v 1682 SEE Merolla da Sorrento, J., 1814.
 xv 1719 N. (brief gen. acc.; 70.)
 v *1757 Adanson, M. (Senegal)
 *1794-
 1795 Link, H.F. (n.sp.)
 xv 1809a Cuvier, G. (comp. w/ other species; 294-296, pl. 19.)
 xv 1836b Robert, C. (skeleton; 363.)
 v 1845 Adanson, M. (Senegal)
 xv 1881 Flower, W.H. (locomotion on land; hunting; 455-456.)
 x 1906b Dexler & Freund (excreta, 57-58; locomotion, 68.)
 xv 1913 Frobenius, L. (Yoruba; hunting & myths; 1: 199.)
 x 1917 Fairchild, D. (m339.)
 x 1918 Ménégau, A. (potential commercial use; 701-704.)
 xv 1923 Anon. (Niger R.; capture; 75.)
 x 1924-
 1925 Vosseler, J. (in capt.; historical records; 60-62.)

- x 1926 Derscheid, J.M. (in capt., Antwerp, 23-25; distr., hunting, conservation, 28-31; 2 subspecies recognized, 28-29.)
- x 1929 Stunkard, H.W. (Belgian Congo; trematode *Chiorchis fabaceus*; 255.)
- xv 1931 Meek, C.K. (Nigeria; myths, taboos, charms; 76-78, 304.)
- 1933a Dollman, G. (Nigeria; distr., hunting)
- x *1934 Hatt, R.T. (distr., 533-534, 554-560, 566; synonymy, 535-538; skeleton, 539-554, 560-561; pl. 27.)
- 1936 Maclatchy, A.
- 1936 Newton
- xv 1937 Woods, F.J. (Nigeria; hunting, measurements, rituals; 23-28.)
- x *1941b Heuvelmans, B. (dentition; 2-8, 10.)
- x 1942 Heuvelmans, B. (comp. w/ *Prorastoma veronense*; 4-5.)
- x 1943 Heuvelmans, B. (dentition; 8-10.)
- 1945 Budker, P.
- x *1948 Bessac & Villiers (gen. acc.; 188-189.)
- xv 1949a Anon. (Belgian Congo; m36.)
- xv 1949 Colmant, F. (Belgian Congo; 11.)
- x 1951 Reinhart, R.H. (m204, 207.)
- 1952 Bouveignes, O. de
- x *1952 Dekeyser, P.L. (body temperature in air; 243-246.)
- xv 1953 Gijzen, A. (in capt., Antwerp; 89.)
- xv 1954 Anon. (in capt., Antwerp; 78.)
- x 1955 Dekeyser, P.L. (teeth; 921-925.)
- 1956 Dekeyser, P.L.
- x 1957 Cadenat, J. (Senegal; capture in shark nets; 1368-1369.)
- x 1958 Gijzen, A. (in capt., Antwerp; 26.)
- x 1960 Blancou, L. (conservation; 244.)
- 1963 Bertram, G.C.L.
- 1963 Gijzen, A.
- xv 1964 Cansdale, G. (Volta R. system, Ghana; status; 170-171.)
- x 1965 Bard, J. ("*Trichecus*"; photo, 4; weed control, 5, 8.)
- x 1965 Kuhn, H.-J. (Liberia; 333.)
- x 1965 Robineau, D. (ear ossicles; 420.)
- x 1965 Stubbings, H.G. (Senegal; 4 spp. of barnacles; 876, 891, 893-902.)
- x 1966 Kellogg, R. (comp. w/ *Metaxytherium calvertense*; 81.)
- x *1966 Kinzer, J. (in capt., Abidjan, Ivory Coast; behavior, etc.; 47-52.)
- x 1967 Browder, J. (m5.)
- *1968 Howell, J.H.
- x *1968 Lemire, M. (stomach & digestion; 475-520, pls. 25-28.)
- x 1968 Rice & Scheffer (distr.; 6.)
- x 1968 Van den Bergh, H. (in capt., Antwerp; longest dive 7 min.; 449.)
- x 1969 Allsopp, W.H.L. (Sierra Leone; in capt., Abidjan, Ivory Coast; 351.)
- 1969 Arbocco, G.
- x 1969 Curry-Lindahl, K. (protected under African Conservation Convention; 122.)
- x *1969 Robineau, D. (temporal & ear region; 3, 14-15, 17-19.)
- x 1970 Lowes, R.H.G. (Sierra Leone; 310.)
- x 1971 Jones, M.L. (in capt.; 85.)
- 1971 Robinson, P.T.
- 1972 Dupuy, A.R. (Senegal; in national park during flood season; 780.)
- x 1973a Anon. (weed control; 5.)
- x 1973 Bertram & Bertram (distr. & status; 317.)
- 1973 Dupuy, A.R.
- x 1973 Poche, R. (?extinct in Niger; 218.)
- x 1974 Bertram, G.C.L. (conservation; 7, 14, 19.)
- x 1974 Itoh & Tsuyuki (fatty acid components of fats; 307-311.)
- x *1974 Sikes, S. (Nigeria; hunting, conservation; 465-470.)
- x 1976 Campbell, H.W. (gen. acc.; 1, 3.)
- x 1976 Cole & Okera (Sierra Leone; 42-43.)
- 1976 Dupuy & Maigret
- x 1977a Domning, D.P. (skin thickness & myology, comp. w/ DD; 3, 20-24, 32.)
- x 1977 Marsh et al. (stomach histology, comp. w/ DD; 290.)
- x 1977 Van Bree & Duguy (specimens in Bordeaux Museum; 292.)
- x 1978a Domning, D.P. (myology, comp. w/ TI; 5, 8-14, 38-46, 52-54, 68-71.)
- x 1978c Domning, D.P. (origin in New World; 578.)
- 1978 Dupuy & Maigret
- 1978a Finnley, D.
- x 1979 Farmer et al. (rectal temperature, comp. w/ TI; 235.)
- 1979a Finnley, D.
- x 1981 Best, R.C. (diet & nutrition; 3-7, 10, 15, 21.)
- 1981 Teleki & Baldwin (Sierra Leone)
- x 1981 Yamasaki et al. (tongue, comp. w/ DD; 182-187.)
- x *1982b Domning, D.P. (evolution; 600, 602, 604-613, 615-616.)
- x 1982 Domning, Rice et al. (distr. & status; 306.)
- x 1982 Kleinschmidt, A. (tail shape; 408.)
- x *1982 Nishiwaki et al. (distr.; 137-147.)
- xv 1982 Trotignon, J. (Senegal; pop. acc.; 61-64.)
- x 1983a Domning, D.P. (dental evolution; pop. acc.; 8, 10-11.)
- x 1983 Gallivan et al. (body temperatures, comp. w/ TI; 255, 259.)
- x 1983 Sprent, J.F.A. (nematode *Heterocheilus domningi*; 69, 73.)
- 1984a Nishiwaki, M.
- x 1984 Rainey et al. (molecular systematics; 586-587.)

- x *1986 Domning & Hayek (morphological variation, 87–144; diet & functional anatomy, 130–131.)
- x 1986 McLaren et al. (Cameroun; specimen in Carnegie Museum; 296.)
- 1986 Roth & Waitkuwait
- 1987a Anon. (Ivory Coast)
- x 1988 Boekschoten & Best (origin by transatlantic dispersal; 110–111.)
- 1988 Fitzgerald, C. (Ivory Coast)
- x *1988 Reeves et al. (Sierra Leone; distr. & hunting; 75–84.)
- x 1992 Marmontel et al. (reproductive biology; 295–296, 302.)
- Trichechus senegalensis senegalensis* Link, 1795, Derscheid, 1926
- x *1926 Derscheid, J.M. (new subspecies; distr.; 29.)
- x 1982 Kleinschmidt, A. (distr.; 372, 380, 382.)
- x *1986 Domning & Hayek (taxon considered invalid; 89, 126.)
- Trichechus senegalensis vogelii* (Owen, 1856) Derscheid, 1926
- x *1926 Derscheid, J.M. ("*T. s. vogelii*," n.comb.; distr.; 28–29.)
- x 1982 Kleinschmidt, A. (distr.; 372, 380, 382.)
- x *1986 Domning & Hayek (taxon considered invalid; 89, 126.)
- Trichechus subpilosus*, Shaw, 1800 (not a binominal name; = *Trichechus manatus*)
- *1800 Shaw, G.
- x 1809a Cuvier, G. ("trichecus"; name considered inappropriate; 294–295.)
- United States of America: SEE under individual states.
- Urogenital System (SEE ALSO: Excretion and Defecation)
- x 1820b Home, E. (DD; kidney, 321; reproductive organs, 321, pl. 30.)
- x 1820 Raffles, T.S. (DD; 177–178.)
- x 1834 Rüppell, E. (DD; kidneys, clitoris; 106.)
- x 1838 Owen, R. (DD, etc.; 39–40.)
- x 1847 Bischoff, T.L.W. (DD; penis; 5–6.)
- x 1857 Rapp, W.v. (TM; female reproductive tract; 96.)
- x 1872a Murie, J. (TMM; 189.)
- 1873 Hyrtl, J. (DD; kidney)
- x 1876 Chapman, H.C. (TMM; 458.)
- 1889 Turner, W. (DD; placenta)
- x 1897 Beddard, F.E. (TI, TM; kidney; 50–51.)
- x *1899 Steller, G.W. (HG; 189–190, 193–195.)
- 1911 Gerhardt, U. (kidney)
- 1911 Riha, A.
- 1912 Freund, L.
- 1918 Kaudern, W.
- x 1924b Petit, G. (kidney; 244–246.)
- x 1924c Petit, G. (kidney; 2197–2200.)
- *1925a Petit, G.
- 1926 Engle, E.T.
- 1928 Freund, L.
- 1930 Freund, L.
- x 1931 Sickenberg, O. (DD; neoteny of male genitalia; 431.)
- 1933 Wislocki, G.B.
- x 1935 Barrett, O.W. (male *Trichechus*, 218–219; male DD, 220.)
- x *1935b Wislocki, G.B. (TML, placenta, 159–178, pls. 1–7; DD, placenta, 164, 172–173, 176.)
- 1944 Sperber, I. (TM; kidney)
- 1953 Batrawi, A. (DD; kidney)
- x 1953 Quiring & Harlan (TML; organs & weights; 194, 202.)
- x 1955 MacMillan, L. (DD; fat around gravid uterus; m18.)
- 1957 Batrawi, A. (DD; kidney)
- x 1957 Gohar, H.A.F. (DD; male genitalia, 30–34; female genitalia, 34–35.)
- x 1967 Jones, S. (DD; India; inflammation of testes; 219.)
- 1967 King, J.M.
- 1969a Harrison, R.J.
- 1973 Mossman & Duke (TI; ovary)
- 1974 Perry, J.S.
- 1974 Prasad, M.R.N. (male reproductive organs)
- x 1976 Allen et al. (DD; positions & weights of organs; 42, 46.)
- x 1981 Marsh & Glover (DD; male reproductive tracts; 261–273.)
- x 1981d Marsh, H. (DD; female reproductive tracts; 248–259.)
- x 1981 Odell, D.K. (TML; kidney & gonad weights; 54–56, 59, 61–63.)
- x *1984 Marsh, Heinsohn & Channells (DD; female reproductive tract; 743–766.)
- x *1984 Marsh, Heinsohn & Glover (DD; male reproductive tract; 721–742.)
- x 1984 Marsh, Heinsohn & Marsh (DD; gonadal activity; 768–771, 776–777, 783–784.)
- 1986 Gambaryan, S.P. (TM; kidney)
- x 1987 Mossman, H.W. (sir. fetal membranes; 267–270.)
- x *1989 Hill & Reynolds (TML; kidney; 53–56.)
- x *1989 Maluf, N.S.R. (TML; kidney; 269–286.)
- 1991 Frey, R. (testicondy & locomotion)
- x 1992 Marmontel et al. (TM, TI; 297–301, 303.)
- Vandalism: SEE Hunting and Capture
- D *Vanderhoofius* Reinhart, 1959
- D *1959 Reinhart, R.H. (n.gen.; Mioc., California)
- xD 1964 Mitchell, E.D., Jr. (pachyostosis; 214.)

- D 1966c Shikama, T.
xD 1968 Romer, A.S. (m200.)
xD 1970a Reinhart, R.H. (m243.)
xD 1975 Reinhart, R.H. (m826.)
xD 1991 Clark, J.M. (?syn. of *Desmostylus*; m493.)
- D *Vanderhoofius coalingensis* Reinhart, 1959
D *1959 Reinhart, R.H. (n.gen.n.sp.; Mioc., California)
xD 1963 Mitchell & Repenning (chronologic & geographic range; 3-4, 11, 16.)
- D 1966c Shikama, T.
xD 1982 Reinhart, R.H. (?syn. of *Desmostylus hesperus*; 554.)
- Venezuela
x 1838 Humboldt, A.v. (TMM; Orinoco R.; 3-10.)
x 1871 Myers & Myers (TMM; Orinoco R.; 102-103.)
1877 Ernst, A.
x 1941b Simpson, G.G. (TMM; Carib vernacular names; 9.)
x 1960 Vúletin, A. (TMM; Orinoco R., Lake Maracaibo; 124.)
1961 Tamayo, F.
1968 Medem, F.
1970 Wilbert, J. (TMM)
x *1974 Mondolfi, E. (TMM; 5-22.)
1988 Fernandez Badillo et al.
x *1988 O'Shea et al. (TMM; distr., status, traditional significance; 281-301.)
x 1989 Lefebvre et al. (TMM; distr., status, & biogeography; 585-586, 607.)
*1990 Correa-Viana et al. (TMM; distr. & status)
1991 Boher & Porras (TM)
x 1993 Cuthbert, R. (Project Mermaid; pop. acc.; 82.)
- Vernacular Names
1665 Breton, R.
x 1743 Barrere, P. (TMM; French Guiana; 159.)
x 1773 Müller, P.L.S. (TMM, Guiana, *cojumero*; DD, Amboina, *doujong*; names in European languages & Hebrew *tachasch*; 175.)
1780 Gilii, F.S.
x 1805 Pitou, L.-A. (TMM; French Guiana; *lamentin*, *Maman-Dileau*, etc.; 2: 260.)
x 1809a Cuvier, G. (derives *lamantin* from *la manati*, 278; *manati*, 278-279; *trichechus*, 279; Portuguese, Spanish, & Dutch names, 279-280.)
1811 Marsden, W. (DD; *duyong*)
x 1812 Beeckman, D. (Cape of Good Hope; terms "manitee" and "sea-cow" used for hippopotamus; 150-151.)
1814 Merolla da Sorrento, J. (TS; Zaire R.; *ngullu à mafa*; 217.)
x 1820 Raffles, T.S. (DD ["2 species"]; Malay; 180.)
1829 Roulin, F.D.
- x 1831 Spix & Martius (TI, Brazil, *goaravá*, *goaragoá*, *peixe boy de azeite*, 1122; TS, Africa, *peixe mulher*; 1123.)
x 1834 Rüppell, E. (DD; Red Sea; Biblical Hebrew, *thachasch*; Arabic, *naqua el bahher*; Dahalak, *dauila*; 99-100.)
x 1838 Wiegmann, A.F.A. (TMM; Carib origin of *manati*; names in Caribbean & Orinoco regions: *manat-toui*, *cojumero*, *apcia*, *avia*; 17-18.)
x 1843 Backhouse, J. (DD; Australia; *youngon*; 368.)
x 1853 Wallace, A.R. (TI; Portuguese, Spanish, Indian; 459.)
x 1854 Guimarães, J.J. da S. (TI; lingua geral, Brazil; *goarabá*; 45.)
x 1857 Fairholme, J.K.E. (DD; Australia; *yungan*; 353.)
x 1857 Shaw, N. (TS; central Africa; *ajuh*; m98.)
1859 Beltran, P. (TMM; Yucatan; Maya, *chiil*, *tek*; 230.)
x 1861a Du Chaillu, P.B. (TS; "Camma country," Africa; *manga*; 367.)
x 1869 Marcoy, P. (TI; South America; 2: 151.)
x 1874 Schweinfurth, G. (TS; Africa; 160, 512.)
x 1875 Schweinfurth, G. (TS; Africa; 138, 422.)
x 1882 Faithful, P. (DD; Queensland; *youngan*; 4-5.)
x 1883 Dybowski, B. (HG; Aleut; skulls of males called "bulls"; 73.)
x 1883 Moloney, C.A. (TS; Gold Coast; Popo, *yingbin-yingbin*; Yoruba, *ese*; 28.)
x *1883 Stejneger, L. (HG; Aleutians, 84; Kamchatka, 85.)
x 1884b True, F.W. (origin of *manatee* & other names; 116.)
x 1885 Barbosa Rodriguez, J. (TI; Brazil; *uaiurary*, *uai-mereré*, *apiná*; 256.)
x 1893 Goeldi, E.A. (TI, TMM; Brazil; 119-120, 165.)
x *1899 Steller, G.W. (HG; Kamchatka; *kapustnik*; 200.)
x 1900 Anchieta, J. de (TMM; Brazil; *boi marinho*, *iguaraguá*; 11.)
x 1901 Anon. (DD; New Guinea; 21239.)
*1903 Yule & Burnell
x 1906 Annandale, N. (DD; Malay, Tamil; 238, 241.)
x 1907a Anon. (TI; Brazil; *goaràba*; 98.)
x 1913 Frobenius, L. (TS; West Africa; 1: 199.)
x 1923 Petit, G. (DD; Madagascar & environs; 75.)
x 1923 Watson, E. (DD oil; Chinese; 103.)
x 1924 Dandouau, A. (DD; Madagascar; 151.)
x 1924a Petit, G. (DD; East Indies; 124.)
x 1925 Pécaud, G. (TS; Lake Chad & Benué regions; Arabic, *amkour*; Baguirrnien, *kourou*; Kanembou, *bounlguil*; 48.)
x 1926 Derscheid, J.M. (TS; Kikongo; *ngulu-maza*; 30.)
x 1926 MacCreagh, G. (TI; Tiquié Tucana Indians, Brazil; *ohkohthithero*; 311.)
1928 Goeje, C.H. de (TMM; Arawak)
x 1928 Koch-Grünberg, T. (TMM; Taulipáng; *apí:na*; 37.)

- x 1928 Prater, S.H. (DD; Malay, Tamil, 85; European languages, 96.)
- x 1929 Stradelli, E. (TI; lingua geral, Brazil; *iauarauá*; 285.)
- x 1930a Simpson, G.G. (TM, TS; Carib & West African; 43.)
- x 1931 Meek, C.K. (TS; Mande, Nigeria; 77.)
- x 1931 Read, B.E. (?HG; Chinese; 16.)
- x 1934 Thomson, D.F. (DD; Koko Ya'o Aborigines, Australia; *wote'i*; 261.)
- x 1935 Sowerby, A. de C. (?HG; Chinese; 82.)
- x 1936 Lopes, A.P. (DD; Mozambique; *chigambi, naga el bahar*; 33.)
- x 1938 Gondim, J. (TI; Pirahan, Brazil; *piráriên*; 12.)
- x *1941a Simpson, G.G. (TM; Carib; 14.)
- x *1941b Simpson, G.G. (TMM; Carib dialects, Venezuela; *yalawa, kayumoru*, etc.; derivation of *manatí*; 9.)
- x 1942a Kaltenmark, J. (DD; Madagascar; 56.)
- x 1944 Morais Rêgo, A.R. de (TI; Brazil; *urauá, vacamarinha, guarabá*; 10, 12.)
- x *1944 Pereira, M.N. (TI; Brazil; color, size, & age categories, 45, 60–61; native names, 62–63; origin of *manatee*, 61–62. New footnote on p. 62 of 1954 ed.)
- x 1945 Alviano, F. de (TI; Ticuna, Brazil; *ái-rué*; 127.)
- x 1945 Santos, E. (TI; Brazil; *iguaraguá, urauá, iuaraná, guaraguá, guarabá, goaragoá, mauai, manatí*; 155.)
- x 1948 Bessac & Villiers (TS; Senegal; *léréo, gabou*; 188.)
- x 1948 Rondon & Barbosa de Faria (TMM; Galibí, Brazil; *cuiúmurú*; 232.)
- x 1949 Sanderson, I.T. (TMM; Suriname; *seicu*; 781.)
- *1950 Durand, J. (*manatí*)
- x 1951 Aragon, F. (DD; Philippines; 266.)
- x 1952a Koenigswald, G.H.R.v. (DD; Malay; *perampuan laut*; 610.)
- x 1952 Nimuendajú, C. (TI; Tukuna, Brazil; *a'iruvë*; 26.)
- x 1953 Clark, E. (DD; Arabic, Red Sea; 176.)
- x 1954 Aragão, A. de (TI; Brazil; *guarabá*; 54.)
- x 1955 MacMillan, L. (DD; Malay, Javanese; 17.)
- x 1956 Harry, R.R. (DD; Malay; m21.)
- x 1957 Gohar, H.A.F. (DD; Red Sea; *gued, naqat al-bahr*; 4–5.)
- x 1958 Savory, B. (DD; Malay, Kiswahili; 255.)
- x 1959 Jones, S. (DD; India; 198.)
- x 1960 Crusz, H. (DD; Malay, Sinhalese, Tamil, Moor; 300.)
- x 1960 Vúletin, A. (TMM; South America; *manatí* & related words; 124.)
- x 1962 Tranngocloi, N. (DD; Vietnamese; 451.)
- x 1963 Lal Mohan, R.S. (DD; India; *babloo*; 152.)
- x *1963 Pfeiffer, P. (DD; Indonesia & East Indies; 149.)
- x 1965 Giacone, A. (TI; Tucano, Brazil; *uai-uehqué*; 170.)
- x 1965 Jones, J.K. (TMM; Miskito, Nicaragua; *palpa*; 354.)
- x 1966 Funaioli & Simonetta (DD; Somali Republic; 317.)
- x 1966 Thomas, D. (DD; India; *avulia, kadalpanni*; 80.)
- x *1970 Cansdale, G.S. (DD; Biblical Hebrew, *tachash*; 138–139.)
- x 1971 Almeida, A. de (DD; Timor; *carin-bêlo*; 211.)
- x 1971 Kingdon, J. (DD; Swahili, East Africa; *nguva*; 390.)
- x *1972 Arrom, J.J. (Carib origin of *manatí*; 33–38.)
- x 1973 Bertram & Bertram (DD; Papua New Guinea; *rui, bulmukau long solwarra, duyong, duyung*; 306.)
- x 1974 Sikes, S. (TS; Nigeria; *mammy-water*; 466.)
- x 1976 Allen et al. (DD; Indonesia; *ikan duyung, ruyung, babi laut*; 35.)
- x 1976 Gallagher, M.D. (DD; Bahrain; *baqarat al bahr, baqara seit*; 211.)
- x 1976 Loveland, F.O. (TMM; Rama, Nicaragua; *palpah*; 74.)
- x 1977 Bertram, G.C.L. (DD; Abu Dhabi; *bagar al bahr*; 4.)
- x 1978 Husson, A.M. (TMM; Suriname; *sekoe, watra-mama*; 334.)
- x 1981 Hendrokusumo et al. (DD; Indonesia; *babi laut, duyong*; 10.)
- x 1981 Johannes, R.E. (DD; Palau; *mesekiu*; 25.)
- x 1981 Nietschmann & Nietschmann (DD; Torres Strait; nomenclature; 58–61.)
- x 1981 Santiapillai, C. (DD; Sri Lanka; Sinhalese, *moodhu oora*; Tamil, *kadal pandi*; 2.)
- x 1982 Nishiwaki et al. (TS; Cameroun, *maga, maiga*; Gabon, *manga*; 142.)
- x 1982 Trotignon, J. (TS; Mandingo, Senegal; *mantí*; 64.)
- x 1982 Wagner, R. (DD; Barok, New Ireland; *bo narasi*; 38.)
- x *1984 Nietschmann, B. (DD; Torres Strait; Islander terms; 639, 642.)
- *1985 Thomson, D.F. (DD; Australian Aboriginal terms)
- x 1985 Wagner, R. (DD; Barok, New Ireland; *a bo nara si*; 150.)
- x *1986 Williams, T.R. (New Ireland; *ri* & *ilkai* identified as DD; 61–68.)
- *1988 Bradley, J.J. (DD; Australian Aboriginal terms)
- x 1988 O'Shea et al. (TMM; Warauno, Venezuela; *jonin-aba, aira*; 294.)
- x 1988 Sehm, G.G. (New Ireland; *ri* = *rui*; 146–147.)
- x 1988 Williams, T.R. (New Ireland; equivalence of *ri* & *rui* doubtful; 150.)
- x 1989 Leatherwood & Reeves (DD; Sri Lanka; Sinhalese, *muđu uru*; Tamil, *kandal pandi, orgil, avuliya*; 82.)
- x 1989a Preen, A. (DD; Arabian region; *al jild, taweelah*,

- bugarah al bahr, arus al bahr*; 97, 114.)
- x *1991 Bradley, J.J. (DD; Sir Edward Pellew Islands, Australia; 91, 93, 99–101.)
- x 1991 Frazier & Mundkur (DD; Gulf of Kutch, India; *bai manas, suwar machi, lulli*; 371.)
- x *n.d. Bible, The (?DD; Hebrew, *tachash*.)
- x n.d. Giacone, A. (TI; Tucano, Brazil; *uekque-uaf*; 54.)
- Virginia
- 1676 Glover, T.
- x 1828 Mitchell et al. (fossil sir.; Accomac Co.; m272.)
- x 1856b Leidy, J. (*Manatus antiquus*; 165.)
- x 1908a Anon. (TML; Ocean View; 532.)
- x 1908 Duncan, J.F. (TML; Ocean View; 611–612.)
- x *1950 McAtee, W.L. (?TML; Rappahannock R.; sighting by Glover [1676]; 98–99.)
- x 1966 Kellogg, R. (supposed sir. [really cetacean]; Mioc.; 78.)
- 1981 Gill, W.
- x *1982 Rathbun et al. (TML; 153–154, 156, 160–163; District of Columbia, 153, 156.)
- x 1984c Domning, D.P. (cf. *Metaxytherium calvertense*; Pamunkey R.; 224–225, 1 pl.)
- x 1985 O'Shea, Beck et al. (TML; 5.)
- x 1988a O'Shea, T.J. (TML; 187, 198.)
- x 1994 Bruenderman & Terwilliger (TM; pop. acc.; 18–19.)
- Washington (State)
- x D 1931 Kellogg, R. (*Desmostylus*; Mioc.; 226.)
- x D 1963 Mitchell & Repenning (*Desmostylus*; Mioc.; 10, 16.)
- x D *1986 Domning et al. (*Behemotops proteus*, n.gen.n.sp.; Olig.; 1–4, 6–14.)
- D 1994 Ray et al. (*Behemotops proteus*; Olig.)
- Weed Control
- x *1960 Allsopp, W.H.L. (TMM; Guyana; 762.)
- x 1960a Anon. (TMM; Guyana; 58.)
- x 1960b Anon. (*Trichechus*; Sri Lanka & Thailand; 5.)
- x 1960c Anon. (*Trichechus*; Sri Lanka & Thailand; 70.)
- 1961 Allsopp, W.H.L.
- x *1961 Dill, W.A. (gen. acc.; 1–6.)
- 1962 Allsopp, W.H.L.
- x 1962 Bertram & Bertram (TMM; Guyana; 1329.)
- x 1963 Bertram & Bertram (TMM; Guyana; results & problems of use of manatees; 91–93.)
- 1963 Bertram, G.C.L. (TMM; Guyana)
- x 1964a Anon. (TML; Florida; account of study in progress; 29–30.)
- 1964d Anon.
- 1964 Garfield, G.
- x 1964 Lapham, L.H. (TM; Florida, 38–39; Panama, m39.)
- x 1965 Bard, J. (TS, TM; potential use; 5, 8.)
- x 1965 Schevill & Watkins (TML; Ft. Lauderdale, Florida; m373.)
- x 1966b Bertram & Bertram (gen. acc.; 214, 216–217.)
- x 1966 Little, E.C.S. (potential use of sirs.; 82, 86.)
- *1966 Sgueros, P.L. (TML; Florida)
- x 1967 Anon. (TML; Florida; pop. acc.; 33–35.)
- x *1967 Browder, J. (TML; Florida; 3–5, 34.)
- x *1967 MacLaren, J.P. (TMM, TI; Panama; 388–393.)
- 1968b Anon.
- x 1968a Bertram & Bertram (TMM; Guyana; 389, 393.)
- 1968 Blackburn & Andres
- 1968 Klinge, P.
- x *1969 Allsopp, W.H.L. (results & problems of use of manatees; 344–351.)
- 1971b Barada, B. (TML; Florida)
- x 1972a Hartman, D.S. (TML; Florida; 22.)
- x *1973a Anon. (TMM; Guyana; 4–5, 17–19.)
- x 1973 Bertram & Bertram (review of past efforts; 329–330.)
- 1973 Walker, M.J.
- x 1974 Mondolfi, E. (TMM; Venezuela; m6–7, m13.)
- x 1974 Sanger, C. (TMM; Guyana; 23.)
- x 1974a Spurgeon, D. (TMM; Guyana; 238–239.)
- x 1974b Spurgeon, D. (TMM; Guyana; 10–11.)
- x 1974b Vietmeyer, N.D. (TM; Guyana & Florida; 60–64.)
- 1975 Andres & Bennett
- x 1975 Vietmeyer, N.D. (m71.)
- 1976f Anon.
- x 1976 Campbell, H.W. (disadvantages of using manatees; 6.)
- x 1977f Anon. (*Trichechus*; pop. acc.; 80.)
- x 1977 Bertram & Bertram (TMM; Guyana, 106–108; Suriname, 107.)
- x 1979 Best & da Silva (TI; Brazil; use in artificial lakes proposed; 29.)
- 1979 Vogt, H.-H.
- x 1983b Gluckman, D. (Florida; relevant laws; 264, 267–273.)
- x 1984b Best, R.C. (TI; Curuá-Una, Brazil; 376.)
- x 1984 Riemer, D.N. (TM; gen. acc.; 138–141.)
- x *1985 Etheridge et al. (TML; Florida; measurements of plant consumption; manatees considered inefficient control agents; 21–25.)
- 1985 Wargasasmitta, S.
- 1986 Cruz & Delgado
- x 1989 Timm et al. (TI; Ecuador; possible importance to Siona Indians of natural weed control; 6.)
- x *1991 Haigh, M.D. (TMM; Guyana; 339–349.)

- West African Manatee: SEE *Trichechus senegalensis* and synonyms
- West Indian Manatee: SEE *Trichechus manatus* and synonyms
- West Indies (SEE ALSO: Caribbean Sea; Cuba; Dominican Republic; Haiti; Jamaica; Puerto Rico)
- 1526 Oviedo, G.F. de (TMM)
- 1651 Hernandez, F.
- x 1665 Rochefort, C. de (TMM; Antilles; 194-195, 199.)
- x 1667 Rochefort, C. de (TMM; Antilles; 391-394, 402.)
- x 1801 Edwards, B. (TMM; 1: 127.)
- x 1809 Descourtilz, M.E. (TMM; San Domingo; 2: 274-276.)
- 1810 Walton, W. (Santo Domingo)
- x 1877 De Pourtales, L.F. (TM; zoogeography; 144.)
- x 1884b True, F.W. (TM; distr.; 115.)
- 1888 Martin, K.
- x 1893 Ober, F. (TMM; Haiti; sighted by Columbus; 236.)
- x 1898 Hill, R.T. (TM; Cuba, m56; Jamaica, m199; Bahamas, m298.)
- 1901 Duerden, J.E.
- 1902 Van Oort, E.D. (Aruba)
- 1907 Fewkes, J.W. (TMM)
- x 1916 Miller, G.S., Jr. (TMM; Santo Domingo; archeological site; 9.)
- x 1918 Miller, G.S., Jr. (TMM; Virgin Islands; archeological site; 509.)
- 1935 Loven, S.
- 1936 Vessey-Fitzgerald, D. (TMM; Trinidad)
- x 1940 Crouse, N.M. (TMM; in 17th century commerce; 110.)
- 1942 Kellogg, R.
- x 1943 Kellogg, R. (Eoc. & Olig. sirs.; 299.)
- x 1946 Baughman, J.L. (TMM; early accounts; 234-237.)
- x 1960 Ray, C.E. (TMM; Lesser Antilles; 412-413.)
- 1964 Rouse, I.
- 1967 Wing, E.S.
- x 1968 Wing et al. (TMM; Antigua; 129.)
- x 1970 Erdman, D.S. (TMM; Puerto Rico; absent from Virgin Islands; 638.)
- x 1971 Pratt, R.M. (sir. rib fragments from seabed off U.S. Atlantic coast; 27, 31-33.)
- x 1976a Anon. (TM; Bahamas; 8.)
- 1978 Campbell, D.G. (TMM; Bahamas)
- x 1978 Odell et al. (TM; Bahamas; 289-293.)
- 1980 Wing & Scudder (St. Kitts)
- x 1982 Sylvestre & Barloy (TMM; gen. acc.; 62-63.)
- x 1982 Wing & Reitz (TMM; Grenada, St. Kitts, Trinidad; at archeological sites; 16, 24.)
- x 1984 Watters et al. (TMM; Barbuda; archeological site; 404, 406-407, 409.)
- x 1986 Steininger, F.F. (TMM; St. Lucia; archeological site; 42, 74.)
- x *1989 Lefebvre et al. (TMM; distr., status, & biogeography; 567-576, 586, 589-591, 599-602, 607.)
- Xenosiren* Domning, 1989
- x *1989d Domning, D.P. (n.gen.; Mioc. or Plioc., Mexico; 429-437.)
- Xenosiren yucateca* Domning, 1989
- x *1989d Domning, D.P. (n.gen.n.sp.; Mioc. or Plioc., Mexico; 429-437.)
- x 1990b Domning, D.P. (comp. w/ *Corystosiren varguezi*; 362, 368-369.)
- x 1991 Toledo & Domning (comp. w/ *Dioplotherium* cf. *allisoni*, 123-124, 130; comp. w/ cf. *Rytiodus*, 132-133, 135.)

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