PROCEEDINGS

OF THE

ACADEMY OF NATURAL SCIENCES

OF

PHILADELPHIA.

1880.

PUBLICATION COMMITTEE:

Joseph Leidy, M.D., Geo. H. Horn, M.D., William S. Vaux, Thomas Meehan, John H. Redfield.

EDITOR: EDWARD J. NOLAN, M.D.

PHILADELPHIA:

ACADEMY OF NATURAL SCIENCES,

S.W. Corner Nineteenth and Race Streets.

1301

ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA. March, 1881.

I hereby certify that printed copies of the Proceedings for 1880 have been presented at the meetings of the Academy, as follows :---

Pages	9 to 56			March 23, 1880.
66	57 to 88			March 30, 1880.
6 6	89 to 120			April 6, 1880.
6.6	121 to 152			June 1, 1800.
66	153 to 200			July 27, 1880.
6.6	201 to 216			August 10, 1880.
6.6	217 to 232			August 17, 1880.
66	233 to 248			September 7, 1880.
6.6	249 to 280			September 28, 1880.
66	281 to 328			October 12, 1880.
6.6	329 to 352			November 9, 1880.
6 6	353 to 384			February 22, 1881.
66	385 to 416			March 1, 1881.

EDWARD J. NOLAN, Recording Secretary.

PHILADELPHIA W. P. KILDARE, PRINTER

LIST OF CONTRIBUTORS.

With reference to the several articles contributed by each.

For Verbal Communications see General Index.

Allen, Harrison. Description of a fœtal walrus	
On the Temporal and Masseter Muscles of Mammals	
Barbeck, Wm. On the Development of Lemna minor. (Plate XVIII.)	
Bergh, R. On the Nudibranchiate Gasteropod Mollusca of the North	
Pacific Ocean, with special reference to those of Alaska. Part II.	
Plates IVIII.)	-40
Chapman, H. C. On the Structure of the Orang Outang. (Plates	
XIXVII.	160
Genth, F. A., Jr. The So-called Emery Ore from Chelsea, Bethel	
Township, Delaware County, Pa	311
Hartman, W. D. Description of a Partula supposed to be new, from	
the Island of Moorea	229
Heilprin, Angelo. On the Stratigraphical Evidence afforded by the	
Tertiary Fossils of the Peninsula of Maryland	-20
On some new Lower Eocene Mollusca from Clarke Co., Alabama.	
with some points as to the Stratigraphical Position of the Beds	
containing them Plate 20	364
Kingsley, J. S. Carcinological Notes, No. 1	34
Carcinological Notes, No. 2Revision of the Gelasimi. (Plates	
IX. and N.).	135
Carcinological Notes, No. 3Revision of the Genus Ocypoda	
Carcinological Notes, No. 4 Synopsis of the Grapsidæ	187
Leidy, Jos. Rhizopods in the Mosses of the Summit of Roan Moun-	
tain. North Carolina	333
Lewis, Henry Carvill. The Optical Characters of some Micas	244
On Siderophyllite, a new Mineral	254
The Surface Geology of Philadelphia and Vicinity	
The Iron Ores and Lignite of the Montgomery Co. Valley	282
On a new Fucoidal Plant from the Trias	293
The Trenton Gravel and its relation to the Antiquity of Man	296
On Philadelphite (Sp. Nov.)	
Lockington, W. N. On a Pacific Species of Caulolatilus	13
Description of a new species of Hemitripterus from Alaska	233
Description of a new species of Catostomus (Catostomus Cypho)	
from the Colorado River	237
McCook, Rev. H. C. The Shining Slavemaker Notes on the Archi-	
tecture and Habits of the American Slave-making Ant, Polyergus	
lucidus (Plate 19)	376
Rand, Theo. D. On Randite	274
Report on Plants introduced by means of the International Exhibition,	
1876	132
Vodges, Anth. W. Description of a new Crustacean from the Upper	
Silurian of Georgia, with remarks upon Calymene Clintoni	176

PROCEEDINGS

OF THE

Academy of Natural Sciences

PHILADELPHIA.

OB

PART I.-January, February and March, 1880.

PUBLICATION COMMITTEE.

Joseph Leidy, M. D., Geo. H. Horn, M. D., Wm. S. Vaux. Thomas Meehan, J. H. Redfield.

EDITOR: EDWARD J. NOLAN, M. D.

PHILADELPHIA:

A (*ADEMY OF NATURAL SCIENCES,

S. W. Cor. of 19th and Race Streets.

1880.

PUBLICATIONS OF THE ACADEMY OF NATURAL SCIENCES

OF PHILADELPHIA.

Seven volumes of the New Series of the JOURNAL, and Vol. VIII, Part III (Quarto) have been issued-1847 to 1877. The price per volume of four parts is \$10, or \$3 per part, to subscribers; and to others, \$12.50 per volume, or \$3.75 per part. Vol. VII contains "The Extinct Mammalian Fauna of Dakota and Nebraska, with a Synopsis of the Mammalian Remains of North America." Illustrated with thirty plates. By JOSEPH LEIDY, M.D., LL.D. The FIRST SERIES OF THE JOURNAL, 1S17 to 1S42, in eight volumes, octavo, may be

obtained at \$40 to members, and to the public, \$48.

The FIRST SERIES OF THE PROCEEDINGS of the Society, published in octavo, 1841 to 1856, of which eight volumes were completed Dec. 31, 1856, may be obtained at \$24 to members; and to the public, \$30.

The SECOND SERIES OF THE PROCEEDINGS, commencing January 1, 1857 (of which fourteen volumes were completed Dec. 31, 1870), may be obtained at \$42 to members, or \$3 per volume separately; and to the public, \$3.75 per volume. The THIRD SERIES OF THE PROCEEDINGS, ILLUSTRATED, commencing January 1, 1871,

(of which nine volumes were completed Dec. 31), 1879, is published at \$5 per annum, payable in advance, to subscribers; single volumes, \$6.25.

AMERICAN JOURNAL OF CONCHOLOGY, 1865-71. Seven vols., Svo. Containing 2500 pages, illustrated by one hundred and fifty plates, many of them colored, besides about a thousand wood engravings. Published at \$70. Price reduced to \$42 for the set. Separate volumes, \$10 each.

BOOKS FOR SALE.

The ACADEMY has the following works for sale at the prices affixed:

DESCRIPTION OF SHELLS OF NORTH AMERICA, with 68 colored plates. By THOMAS SAY. 1830-34. \$10.50.

MONOGRAPH OF THE UNIONIDÆ OF NORTH AMERICA. By T. A. CONRAD. 60 uncolored plates, octavo, 1840. \$8.

MONOGRAPH OF THE TERRESTRIAL MOLLUSCA OF THE UNITED STATES. With illustrations of all the species. By GEO. W. TRYON, JR. Fine edition, plate paper, with duplicate plates, colored and tinted, \$20; colored edition, \$13.50; plain edition, \$8.50. Only one hundred copies printed, which have been mostly sold.

MONOGRAPH OF THE FRESH WATER UNIVALVE MOLLUSCA OF THE UNITED STATES. By S. S. Haldeman, 1840-44. With Continuation to 1871. By George W. Tryon, Jr. 2 vols., with many colored plates. Fine edition, duplicate plates, \$40; with colored plates, \$25: with plain plates, \$18.

Either the original work or the continuation furnished separately, if desired.

SYNONYMY OF THE SPECIES OF STREPOMATIDÆ (Melanians) OF THE UNITED STATES. By GEO. W. TRYON, JR. Cloth, \$2: paper. \$1.75. LIST OF AMERICAN WRITERS ON RECENT CONCHOLOGY, with the Titles of their Memoirs

and Dates of Publication. By GEO. W. TRYON, JR. Cloth, \$2; paper, \$1.75.

MONOGRAPH OF THE ORDER PHOLADACEA and other Papers. By GEO. W. TRYON, JR. Cloth, \$2; paper, \$1.75.

COMPLETE WRITINGS ON RECENT AND FOSSIL CONCHOLOGY OF C. S. RAFINESQUE. Edited by WM. G. BINNEY and G. W. TRYON, JR. \$2,50.

OBSERVATIONS ON THE GENUS UNIO. By ISAAC LEA, LL. D. 4to, Vols. I to 13. With Index, Nos. 1, 2 and 3, complete. Illustrated with several hundred fine lithographic plates. \$60.

Same, Vols. 2 to 13 inclusive, except Vols. 4 and 12. Each volume separately, \$5.

SYNOPSIS OF GENUS UNIO. BY ISAAC LEA, LL. D. Fourth edition. \$3. CONTRIBUTIONS TO GEOLOGY. BY ISAAC LEA. \$5.

FOSSIL FOOT-MARKS. By ISAAC LEA. Large folio, text and plate. \$2. Same, plate alone. 50 cents.

NOTICE TO BOOKSELLERS.—All the publications of the Society will be supplied to Booksellers at a discount of 20 per cent. on the prices charged to the public.

Application to be made to WM. S. VAUX, Chairman of the publication Committee 1702 Arch Street, or to Edward J. Nolan, M.D., Librarian, at the Hall of the Academy, corner of Nineteenth and Race Streets.

f London, TRUBNER & CO.,

AGENTS,

No. 60 Paternoster Row.

June, 1880.

Salem, Mass., NATURALIST'S AGENCY.



CONTENTS.

MEEHAN, THOMAS. On disarticulating branches in Ampelopsis,	9				
LEIDY, Jos., M. D. Notice of the Cruel Thread Worm, Filaria					
immitis, of the Dog,	10				
LOCKINGTON, W. N. On the Pacific Species of Canlolatilus, .	13				
HEILPRIN, ANGELO. On the Stratigraphical Evidence afforded					
by the Tertiary Fossils of the Peninsula of Maryland, .	20				
KINGSLEY, J. S. Carcinological Notes, No. I	34				
ALLEN, HARRISON, M. D. Description of a Foetal Walrus.	38				
BERGH, Dr. R. On the Nudibranchiate Gasteropod Mollusca of					
the North Pacific Ocean, with special reference to those					
of Alaska. Part II. (Plates 1–8.)	40				
KELLY, HOWARD A. Sartorius Muscle of the Gorilla	128				
MEEHAN, THOS. Germination in Acorns,	128				
LEIDY, Jos., M. D. On a Filaria reported to have come from a					
Man,	130				
REDFIELD, J. H. On Rochelia patens,	131				
Report on Plants introduced by means of the International Ex-					
hibition, 1876,	132				
ALLEN, HARRISON. Mammary Glands of Bats	133				
KINGSLEY, J. S. Carcinological Notes, No. IIRevision of the					
Gelasimi. (Plates 9 and 10.)	135				

CARCINOLOGICAL NOTES No. I.

BY J. S. KINGSLEY.

It is the intention of the writer in this series of notes to give descriptions of new species, rectifications of synonymy, facts relating to geographical distribution, and other matters of importance concerning the Decapoda. Unless otherwise stated all specimens are in the collection of the Academy of Natural Sciences of Philadelphia.

Genus PSEUDOTHELPHUSA Saussure.

(Potamia Latr. et Boscia Edw. preoc.)

Pseudothelphusa latifrons.

Potamia latifrons Randall, Journal of the Academy of Natural Sciences of Philadelphia, viii. p. 120.

Carapax smooth, regions and sutures indistinct. Frontal crest very prominent, uninterrupted. Front reflexed, making with the surface of carapax an angle of about 45° , its margin undulating and its surface and margin granulate. From the front arise processes which all but join the inferior margin of the orbit. Superior margin of orbit crenulated. Anterolateral teeth more prominent than in any other of the genus and extending back to the posterior third of the carapax. Below, the carapax is everywhere granulate and especially so on the sub-branchial regions and near the mouth. Inferior margins of orbits denticulate. Chelipeds nearly equal. Anterior surface of meros granulate, as are the outer portions of carpus and upper portions of the hands. The daetyli with rows of small tubercles above.

The species is a true *Pseudothelphusa*, the antennæ being as in that genus, but the reflexed front gives it a peculiar appearance and with the larger anterolateral teeth will readily separate it rom all other known forms. The emargination of the external margin of the orbit is no more marked than in *P. chilensis* (Edw. and Lucas) Smith, the type of which, by the way, is in the Museum of the Academy.

Pseudothelpusa sinuatifrons (A. M.-Edw.) Smith.

The locality of this species was not known to Alphonse Milne-Edwards. There are two males in the Academy's collection from San Domingo (W. M. Gabb). 1880.

Genus DILOCARCINUS.

Dilocarcinus pardalinus Gerstæcker, Archiv für Naturgeschichte xxii, p. 148, 1856.

Gerstæcker gives doubtfully South America as the habitat of this species. There are specimens with the label "? Upper Amazon, Dr. Wilson."

Dilocarcinus spinifrons, nov.

Carapax regularly arcuate, regions obsolete, sides arcuate, armed with four spines besides the spiniform angle of the orbit; the margins of the spines finely serrate. Superior margin of the orbit obscurely crenulate, inferior denticulate with a strong spine near the interior angle. Front advanced, with about fourteen spines. A spine at the anterolateral angles of the buccal area. Chelipeds sub-equal, meros with two spines at about the middle of the posterior margin and a single one on the anterior margin at about the middle, and one on the distal portion of the upper margin; the spine on the interior surface of the corpus long, slender, acute. Hand with an acute spine above at the articulation of the dactylus, fingers with the denticulations fine but acute. Ambulatory feet less dilated than is usual in this genus. The spined front readily separates this from all other species.

Upper Amazon, Dr. T. B. Wilson.

Genus THELPHUSA (including Geothelphusa Stm.)

Of this genus forty-five species have been described. The localities from which I have examined specimens are marked with an exclamation point (!).

africana A. MEdw. West Africa.	corrugata Heller. Madras, Java.
anchietæ Capello. West Africa.	crassa A. MEdw. Australia.
andersoniana Wood-Mason. Burmah.	cristata A. MEdw. East Indies(!).
angustifrons A. MEdw. Australia.	dehaani White. Japan.
aubryi MEdw.	berardi DeHaan.
West Coast Africa (!); Natal (!).	japonica Herklots.
aurantia Herklots.	denticulata MEdw. China.
pelii Herklots.	depressa Krauss. Port Natal.
atkinsoniana Wood-Mason.	difformis MEdw. Red Sea.
Northern India.	edwardsii Wood-Mason. Burmah.
austeniana Wood-Mason. India.	fluviatilis (Bose.) Latr. Mediterranean
bayonica Capello. West Africa.	Region, Greece (!), Gaarda Sea (!),
bayonica var. a Capello. West Africa.	(Museum Peabody Academy).
berardi Savigny.	grapsoides White. Manilla.
Egypt, Nile (!); Red Sea.	? subquadrata Gerst.
chilensis (Heller) A. MEdw. Chili,	goudoti MEdw. Madagascar.

guerini MEdw.	India.	obesa A. MEdw.	Zanzibar.	
hispida Wood-Mason.	Burmah.	obtusipes (Stm.) A. MEdw.		
hydrodromus Gerst.		Japan, Philippines.		
indica Latr.	India.	perlata Edw. South Africa, Pt. Natal (!).		
canicularis Westwood.		philippena von Martens.	Philippines.	
? aurantia Gerstæcker.		picta von Martens.	Philippines.	
? rotunda Freycinet.		planata A. MEdw.	Bombay.	
inflata MEdw.	Pt. Natal.	— ? guerini M. Edw.		
jagori von Martens.	Philippines.	siamensis A. MEdw.	Siam.	
lævis Wood-Mason.	India.	sinuatifrons MEdw.	Unknown.	
larnaudi A. M -Edw.	Siam.	stoliczkana Wood-Mason.	Penang.	
leschenaulti Edw.		subquadrata Gerst.		
India (!), Mau	ritius, Tabita.	= ? grapsoides.		
lugubris Wood-Mason.	India.	transversa von Martens.	Australia.	
margaritaria A. MEdw.	West Africa.	tumida Wood-Mason.	Burmah.	
nilotica M. Edw.	Nile.			

To this list I would add three more :

Thelphusa emarginata nov.

Carapax glabrous, longitudinally strongly arched. Post-frontal erest continuous, nearly straight, obscurely crenulate, epibranchial tooth obsolete, a tooth between the extremity of the post-frontal erest and the angle of the orbit. Protogastric region very short, front about one-fourth the width of earapax, slightly sinuate. External angle of orbit slightly emarginate. Anterolateral margin cristate; crest, however, soon becoming obsolete. Chelipeds sub-equal, meros with the margins tuberculate and with a strong spine on the distal portion. Upper and outer surface of carpus with indistinct squame, inner portion two-spined, the proximal spine exhibiting a tendency to become bifid. Hands with the upper margin obsoletely tuberculate, fingers roughened, not gaping. Ambulatory feet slender, compressed.

Is very near T. depressa Krauss, but differs from that species in the narrower and straighter front, the tooth just behind the angle of the orbit, and in the non-gaping fingers of the chelipeds.

Length 34 mm., breadth 56 mm.

West Africa, Du Chaillu; Port Natal, Dr. T. B. Wilson.

The name is proposed on account of the emargination of the orbit.

Thelphusa enodis nov.

Carapax smooth; post frontal crest wanting. Epibranchial tooth very small. Front narrow, strongly curved downward, its margin concave. Chelipeds unequal, hands with the inferior

1880.] NATURAL SCIENCES OF PHILADELPHIA.

margin regularly arcuate. Is very closely allied to *T. lævis*, but differs in the flatter carapax, the concave front, and the regularly arcuate lower margin of the hands. In all other respects Mr. Wood-Mason's description and figures (Journal Asiatic Society of Bengal, vol. xl, p. 201, Pl. xiv, fig. 1-6) would well apply to it.

Thelphusa rugosa nov.

Carapax depressed, cervical suture and post frontal crest well marked, the crest interrupted. Front nearly straight; protogastric region nearly smooth; epibranchial tooth small, directed inward, lateral portions of carapax with transverse rngæ as in many *Grapsi*, the margin of the anterolateral portion obscurely crenulate. Chelipeds subequal; the outer surface of meros and carpus with squamose rugæ, the rugæ on the hands indistinct. Carpal joints of the first three pairs of ambulatory feet with the sides cristate; dactyli pointed.

Length 26 mm., breadth 32 mm.

This species is nearest *T. denticulata*, but will be readily identified from that species by the more crenulated margin between the orbit and the epibranehial tooth, and by the rugæ on the lateral portions of the carapax.

Acanthocyclus gayi Edwards and Lucas.

The type of this species is in the museum of the Academy.

Ceylon.

Ceylon.