

PROCEEDINGS

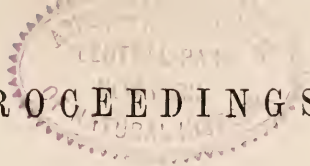
OF THE

ACADEMY OF NATURAL SCIENCES

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VOL. V. 1850 & 1851.  
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PHILADELPHIA:  
PRINTED FOR THE ACADEMY  
By Merrihew & Thompson, 7 Carter's Alley.  
1852.



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Several fragments were then exhibited of a much smaller animal than the last, consisting of the greater part of the inferior and superior maxillæ, the latter containing the 4th premolar and the true molars perfect, having the same form as those of *Oreodon prisicum*. To this species, the name of *Oreodon gracile* was given.

The posterior two inferior molars have the same form as the corresponding ones of *Merycoidodon*.

*Measurements of O. gracile.*

Line of inferior molars to root of canine, . . .	25½ lines.
Greatest breadth of inferior maxilla, below the posterior molar tooth, . . . . .	16½ “
Line of superior molars, . . . . .	26 “
“ “ true molars, . . . . .	14 “
Greatest breadth of the middle superior true molar, . . . . .	5½ “

The fragment of a face before alluded to having the same form of the superior true molars as *Oreodon*, but differing from it in having 3 cusps to the fourth premolar, belonged to an animal very closely allied to the latter genus. It possesses the remarkably large lachrymal depression, which in this fossil appears to have been more hemispherical than in *Oreodon*. The depression being of such a striking character in *Oreodon* and in this genus, the name *Cotylops* was proposed for the latter. The only entire tooth preserved in the fragment of *Cotylops* is the third premolar, the crown of which is antero-posteriorly oblong, constricted in the middle so as to give in outline the form of 8. It has a single cusp, and presents an oval fossa about two lines long, postero-internally; and a heel or short tubercle antero-internally.

The species was named *Cotylops speciosa*.

*Measurements.*

Length of line of 1st and 2d superior true molars, . . .	10 lines.
“ “ 2d, 3d, and 4th premolars, . . . . .	13 “
Antero-posterior diameter of 3rd premolar, . . . . .	4½ “
Greatest breadth of “ “ . . . . .	2½ “
Diameter of lachrymal depression, . . . . .	6½ “
Depth “ “ “ . . . . .	2¼ “

The fragment of cranium for which was proposed the name *Eucrotaphus*,\* from its great resemblance to that of *Oreodon*, and its proportions, with the close alliance of *Oreodon* to *Merycoidodon*, Dr. L. suspected belonged to the latter genus.

August 26th.

Vice-President WETHERILL in the Chair.

The Committee on the following, by Dr. Leidy, reported in favor of its publication.

*Helminthological Contributions.—No. 3.*

BY JOSEPH LEIDY, M. D.

*Gen. Nov.* SYNPLECTA.†

Body nematoid, cylindroid, distinctly and coarsely annulated. Head composed of two trilobed portions, between which is the mouth. Œsophagus long, simple.

\**Proc. Acad. Nat. Sci.*, Vol. v. p. 90.

†  $\xi$   $\nu$  together;  $\pi$   $\lambda$   $\epsilon$   $\chi$   $\omega$ , I twine.

Intestine narrow, simple. *Male*, attenuated at the extremities; posteriorly rolled into a spiral, and furnished ventrally with numerous tegumentary tubercles. Penis short, corneous, composed of two lateral portions. *Female* anteriorly attenuated; posteriorly terminating in a strong, thick, muscular acetabulum, with a posterior conoidal depression containing a single strong, recurved hook. Anus and generative apertures close together, just anterior to the muscular acetabulum. Ovum elliptical, elongated at the poles.

The female of this curious genus of nematoid entozoa attaches herself, by means of the posterior hook, to the mucous membrane of the intestinal canal of the animal it infests, while the male clings to the female by winding the posterior part of its body spirally around the posterior part of the latter, retaining itself in that position through the aid of the numerous tubercles upon its ventral surface, which closely apply themselves to the part of contact in the female.

1. *SYNPLECTA PENDULA*, *n. s.*

Body faintly reddish-white, cylindroid. Annulations with from 12 to 18 transverse muscular striæ. Lobes of the head nearly equal. Œsophagus very long, cylindroid, slightly dilated inferiorly. Intestine narrow, cylindrical.

*Male*. Length 4 to 5 lines; breadth 1-6th of a line. Posterior fourth of body forming three turns of a spiral, furnished ventrally with about 20 longitudinal rows of tegumentary tubercles, or small quadrilateral plates 1-1600th in. long, by 1-2666th in. broad, extending as far back as the anus. Tail curved, conoidal, 1-60th in. long from the anus, furnished ventrally with 7 or 8 pairs of minute conical tubercles. Œsophagus 1-5th line long, 1-333d in. broad; intestine 1-400th in. broad. Penis 1-200th in. long, conoidal, obtuse, bent at free extremity, composed of two lateral halves.

*Female*. 6 to 11 lines long, 1-5th to 1-4th line broad. Posterior extremity bent, dilated, terminating in a thick, oval, strongly muscular receptacle or acetabulum, truncated posteriorly and excavated into a deep conical cavity, containing a strong hook, with the point directed forward, 1-200th in. long, with a base 1-400th in. broad. Œsophagus, in an individual  $8\frac{1}{2}$  lines long, 1 line long by 1-666th in. broad at commencement, 1-333d in. at termination. Intestine 1-450th in. broad. Ovum 1-570th in. long, 1-3333d in. broad.

*Habitation*. Stomach and commencement of the small intestine of *Emys guttata*.

*Remarks*.—The female hangs suspended by its posterior hook from the mucous membrane of the stomach of the *Emys*, in which it is parasitic, while the male clings closely to the female by means of its spiral folds, retaining its position readily from the roughness of surface produced by its numerous ventral tubercles, and also those upon the tail. I found this entozoon three times, in 15 individuals of *Emys guttata*. In one instance it was a large female; in the second two, average size females, and one male; in the third instance the stomach was distended with the worms, of which about one in five or six was male, and usually clung to the largest of the females.

*CUCULANUS*, *Müller*.

2. *CUCULANUS TRISPINOUS*, *n. s.*

Body reddish, narrow, cylindrical, finely striated, attenuated at the extremities. Mouth large, sustained by a red or brown corneous capsule, presenting 8 radiating ribs or lines upon each side of a middle line. Œsophagus of two por-

tions; the first, elongated pyriform; the second cylindroid, a little dilated at its lower end. Intestine simple, cylindrical, a little narrower than the œsophagus.

*Male*.—3 lines long, 1-200th to 1-160th in. broad at middle. Posterior extremity curved, acute, furnished on each side ventrally, with an expansion of the integument, of nearly uniform breadth, 1-800th in., to its termination, commencing 1-50th in. above the end of the tail, and perforated by 6 nearly equidistant respiratory canals. Tail 1-300th in. long from anus. Anal and generative apertures indicated by a prominent lip, and separated by a small conical papilla. Penis consisting of two corneous, curved spiculæ; one 1-56th in. long, the other 1-200th in. long.

*Female*.—Viviparous, 6 lines long, 1-100th to 1-90th in. broad. Tail straight, long conoidal, 1-111th long from anus, obtuse, terminated by 3 minute points 1-4000th in. long. Generative aperture surrounded by a very prominent lip, a little posterior to the middle. First portion of œsophagus 1-66th in. long; 1-200th in. at broadest part; second portion, 1-56th in. long.

*Habitation*.—Small intestine of *Emys guttata*.

#### TÆNIA, *Linn.*

##### 3. TÆNIA PULCHELLA, *n. s.*

White, without any admixture of any other color, variable, usually broadest anteriorly. Head quadrilateral, sub-clavate, obtusely rounded, broader than the neck. Acetabula circular, cup-shaped, lateral and opposite, sessile, protractile. Neck very long, cylindroid. Articuli containing several colorless globules; anteriorly subglobular or transversely oval; posteriorly moniliform, longitudinal-ly oval, or cylindroid and centrally incrassate.

*Measurements*.—*Longest* 9 in. Articuli commencing to be distinctly separate 4 in. from the head. Breadth anteriorly  $\frac{1}{4}$  line; posteriorly 1-6th line. Anterior articuli 1-6th line long; posterior  $\frac{1}{4}$  line. Acetabula, 1-166th in. diameter.

*Smallest* 2 in. Head, 1-75th in. broad. Articuli commencing distinctly separate  $\frac{1}{2}$  in. from the head. Broadest part of neck, 1-90th in.; short distance posterior to the head, 1-125th in. Anterior articuli 1-100th in. diameter; posterior 1-44th in. long; 1-200th broad at extremities, 1-133d in. broad at middle. Acetabula, 1-200th in. diameter.

*Habitation*.—Small intestine of *Bufo americanus*.

*Remarks*.—Closely resembles the *Tænia dispar*, *Goeze*, found in the *Bufo viridis*, etc., but it is relatively longer and narrower, and is never colored.

#### PLANARIA, *Müller.*

##### 4. PLANARIA SYLVATICA, *n. s.*

Body elongato-fusiform, thick, becoming narrowed forward, smooth, shining; superiorly convex, grayish with a fuliginous stripe down each side of the dorsal line, and a transverse spot of the same color, at, or just posterior to the centre: inferiorly compressed, whitish; anteriorly attenuated, probosciform; tip recurved, fuliginous, obtuse; posteriorly broadest, terminating acutely. Eyes two, black, globular, lateral, slightly prominent.

Length 2 to 5 lines; breadth at the anterior fourth,  $\frac{1}{4}$ th of a line; at posterior fourth,  $\frac{1}{4}$ th of a line.

*Habitation.*—Beneath stones, flower-pots, and boxes, in gardens in Philadelphia, and under fragments of wood, bark, old logs, etc., in forests in the neighborhood of Philadelphia.

*Remarks.*—This is the first terrestrial planaria which has been detected in North America. I accidentally discovered it first beneath several flower boxes, and pots in the small garden attached to my residence in this city, since which, I sought for and found it in the hilly woods bordering the Wissahicon Creek and Schuylkill River. In its movements it resembles a slug (*Limax*,) and like this leaves behind it a mucous trail. When in motion, the anterior portion of the body is much elongated, and very narrow, and the portion anterior to the eyes is recurved. Frequently it raises the anterior third of the body from the ground, moving it from side to side as if in search of something. The recurved portion inferiorly, is flat, with the edges often inflected.

When at rest, the body is contracted into an oblong form, and the head lies doubled upon the back. The longest will contract to  $2\frac{1}{2}$  lines in length by  $\frac{1}{2}$  a line in breadth, and  $\frac{1}{3}$ rd line thick posteriorly, and  $\frac{1}{4}$ th line wide anteriorly.

The coloring matter upon the back is arranged in faint transverse annuli, accumulating upon each side of the middle into a longitudinal line, and a transverse spot about the centre.

The eyes are globular, apparently composed of a vitreous humor, two-thirds enveloped with a black pigment. They are situated laterally, the 1-100th to the 1-48th of an inch posterior to the extremity of the head, and measure about the 1-500th in. in diameter.

The mouth is inferior and a little posterior to the centre. Œsophagus keg-shaped, about 1-50th in. long. From the acute tail end is secreted a delicate mucous stread.

The planaria appears not to like the water, for although it will live for some hours beneath the surface, when prevented from rising, yet it always seeks to leave it and remains out when it has escaped.

In the same forest localities with the planaria, is found an insect larva, possessing similar habits, which upon careless inspection might be mistaken for it. The movements of the larva are more rapid and vermicular.

#### PLANARIA, Müller.

##### *Sub-genus nov. BDELLOURA.\**

Characters same as *Planaria*, without tentaculæ, and the posterior extremity of the body separated by a constriction serving as a disk of attachment.

##### 5. BDELLOURA PARASITICA, n. s.

Body milk white, with a faintly yellowish intestine showing through the translucent integument, smooth, thin, lanceolate, or spatulate; anteriorly narrowed, obtuse; lateral margins, thin, undulating; constricted portion posteriorly truncated, nearly as broad as the middle of the body. Eyes two, reniform. Œsophagus simple, cylindrical, campanulate when protruded.

Length from 3 to 10 lines; breadth 2-5ths to  $2\frac{1}{4}$ th lines. The longest may contract to 6 lines by  $3\frac{1}{2}$  lines.

*Habitation.*—Parasitic upon the King Crab, *Polyphemus occidentalis*, Lam.

\*βδελλα, a leech; ργα, tail; because the animal adheres by the tail like a leech.

Found often in great numbers, adhering with considerable tenacity by means of the posterior constricted extremity of the body, to the under surface of the branchial covers, the branchial laminæ, and to the extremities, especially in the vicinity of the joints.

*Remarks.*—When the king crab is removed from the water, its planaroid parasite retires to the deepest recesses between the limbs and other external organs to avoid evaporation. The parasite moves with a gliding motion like the species of *Planaria*, and also by fixing the posterior extremity and extending the anterior part of the body to its greatest length, and then abruptly detaching and drawing forward the former, like the leeches. At other times it fixes itself posteriorly, and waves the anterior portion of the body to and fro through the water.

Attached to the branchial laminæ of the king-crab, are frequently observed ochreous or brownish, oval, compressed cysts, from  $\frac{1}{4}$ th to 2 lines long, and 1-6th to 1 line broad, attached by a short pedicle at one extremity, and unusually closely applied to the surfaces between the branchial laminæ, which are receptacles or ova? of the *Bdelloura parasitica*. Occasionally the margin of the cysts is provided with a fringe of short, irregular, blackish filaments. Sometimes these cysts exist in such numbers as to have the appearance of flaxseed sprinkled between the branchial laminæ.

6. *BDELLOURA RUSTICA*, *n. s.*

Body brownish or blackish, translucent, lanceolate; anteriorly narrowed, obtuse; lateral margins thin, undulating; constricted portion truncated posteriorly, with parallel margins. Eyes two, reniform. Œsophagus simple, cylindrical.

Length 2 to 3 lines; breadth 2-5ths to 4-5ths of a line.

*Habitation.*—Egg Harbor bay, New Jersey, upon *Ulva latissima*, *Linn.*

*Remarks.*—Movements same as in the preceding species. When free in water it moves with great rapidity, and rises to the surface in the manner of the leech, or the larva of the gnat.

*Gen. nov.* MYZOBDELLA.\*

Body elongated, compressed fusiform, smooth. Head continuous with the body, subindibuliform, obliquely ventrally terminal. Mouth central, unarmed. Acetabulum ventrally obliquely terminal, concave, not corneous.

7. *MYZOBDELLA LUGUBRIS*, *n. s.*

Body cylindro-fusiform, in transverse section, elliptical, black olivaceous green; anteriorly narrowed, cylindroid; posteriorly incrassate. From 15 to 18 annulations. Integument translucent, permitting the sacculated intestine of a black green hue, to be visible. Acetabulum circular, concave, a little larger than the oral disk.

When elongated 10 lines, by  $\frac{1}{2}$  line in breadth posteriorly, 1-5th of a line anteriorly. Will contract to 4 lines by 4-5ths line in breadth.

*Habitation.*—Parasitic upon the common edible crab, *Lupa dicantha*, *M. Edw.*; usually found attached about the base of the limbs.

*MECKELIA*, *Leuckart.*

8. *MECKELIA LACTEA*, *n. s.*

Body very soft, milk white, in transverse section lenticular, convex above and below; when extended, very much compressed, more especially posteriorly, in-

\* $\mu\nu\zeta\omega$ , I suck;  $\beta\delta\epsilon\lambda\lambda\alpha$ , a leech.

crassate rounded just posterior to the head; lateral margins, thin, undulating; posterior extremity thin, sub-acute. Head compressed, conical or hastate, anteriorly obtuse, breadth at base 1 line; lateral cleft  $1\frac{1}{2}$  lines long. Generative aperture longitudinally oval.

Greatest length 6 inches: ordinarily 5 inches, by 3 lines in breadth, and 1 line in thickness: may contract to 1 inch in length, by 2 lines in breadth, and  $1\frac{1}{2}$  lines in thickness.

*Habitation*.—In mud and sand under stones, dead shells, etc., in positions uncovered at low tide, upon the coast of Great Egg Harbor, New Jersey.

*Remarks*.—The more it is extended the broader and thinner it becomes, especially posteriorly. When free in water, it swims like the eels, and in such cases, the broad surfaces of the body are more or less vertical.

9. MECKELIA ROSEA, *n. s.*

Body bright flesh-colored with fainter lateral margins, and a central<sup>r</sup> darker line inferiorly; in transverse section oblong, convex superiorly, flattened inferiorly; when elongated, becomes cylindroid; posteriorly, obtuse. Head compressed, conical or hastate, whitish. Generative aperture distinct, round.

Length from 2 to 6 inches; ordinarily about 5 inches.

*Habitation*.—With the preceding species.

*Remarks*.—As it elongates it approaches more the cylindrical form, becoming thicker and narrower.

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The Committee on Mr. Cassin's descriptions of new species of *Laniadae*, reported in favor of its publication in the Proceedings.

*Descriptions of new species of birds of the family Laniadae, specimens of which are in the collection of the Academy of Natural Sciences of Philadelphia.*

BY JOHN CASSIN.

1. *Lanius pallidirostris*, nobis.

*Form*.—Bill rather long and compressed, wings rather short with the third quill distinctly longest, general form robust, and that of typical *Lanius*. About the size of *L. septentrionalis*, Gm.

*Dimensions*.—Total length of skin from tip of bill to end of tail, about  $8\frac{1}{2}$  inches, wing  $4\frac{1}{4}$ , tail  $4\frac{1}{8}$  inches.

*Colors*.—Adult. Bill pale horn color. Upper surface of the head, with the back and rump pale cinereous, scapulars white and conspicuous, wings with a large patch of white on the primaries, and with the secondaries broadly tipped with white.

A stripe of black through the eye, very narrow on the nares, but wider behind the eye. Entire under-surface white, with a delicate, pale rosy tinge, most observable on the breast. Tail, with the two external feathers on each side, white, each with a narrow longitudinal line of black on the shaft, slightly widening into both webs, other tail feathers black, tipped with white, except the two in the centre, which are pure black. Tarsi and claws pale brown.

*Hab*.—Eastern Africa.

*Obs*.—This fine species, of which there is one specimen only in the Rivoli collection, may be distinguished readily from all others known to me by its very