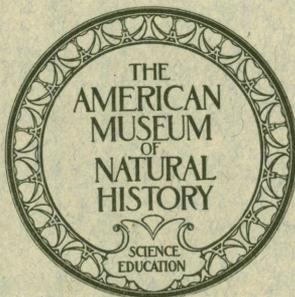


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POLYCHÆTOUS ANNELIDS COLLECTED AT
ST. PAUL DE LAONDA BY THE AMERICAN
MUSEUM BELGIUM CONGO EXPEDITION

BY A. L. TREADWELL



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POLYCHÆTOUS ANNELIDS COLLECTED AT ST. PAUL DE LOANDA BY THE AMERICAN MUSEUM BELGIAN CONGO EXPEDITION¹

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Several families of polychætous annelids are represented in the collection.

The Nereidæ are *Nereis pelagica* Linnæus and *N. tongatabuensis* McIntosh.

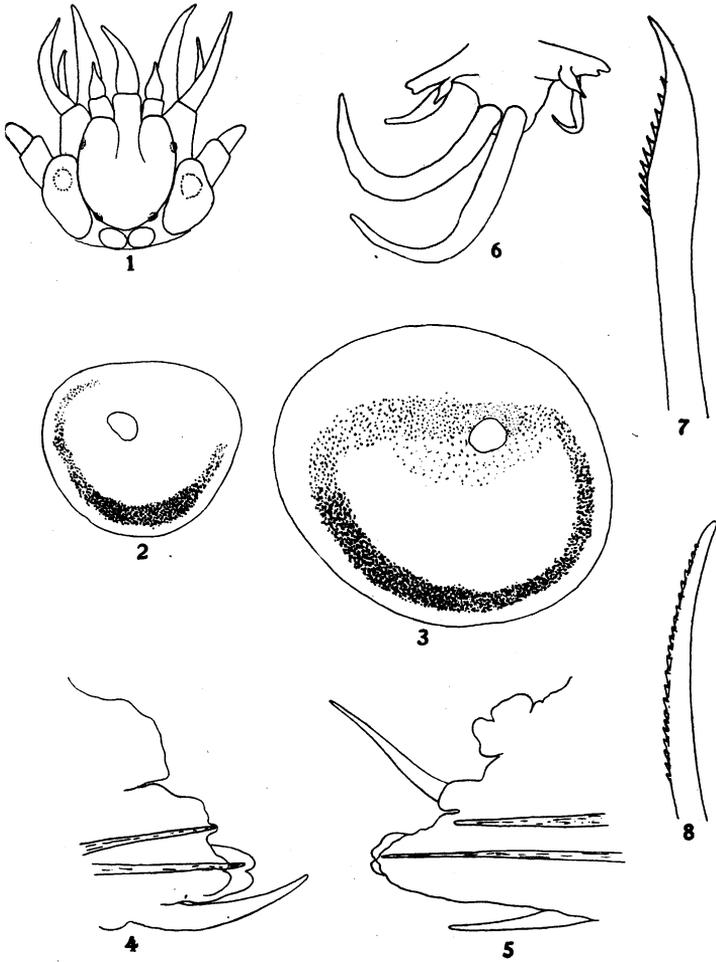
Of the Leodicidæ, *Diopatra neapolitana* Delle Chiaje is represented by a single specimen, and there is a fragment of a tube of some leodicid. There are a few fragments of *Chætopterus*, too much injured for identification, and a considerable number of specimens of *Dasychonopsis* (*Dasychone*) *bairdii* McIntosh. The appearance of this last species is unexpected, since it was first described from the West Indies, but it is evident that a sessile species like this might be easily transported on the bottom of ships.

Of the Polynoidæ there are several specimens of *Lepidonotus clava* Montagu, and a single mutilated specimen of a *Harmothoë*, apparently closely related to *H. fraser-thomsoni* of McIntosh ('Monograph of the British Annelids,' Pt. II, 'Polychætæ.' Ray Society, 1900, p. 337), but the elytra lack the large tubercles found on one side only, which McIntosh describes from that species. The appendages of the head were entirely lost and close comparisons are not possible. A species of *Acholoë* is new and its description follows.

***Acholoë orbiculata*, new species**

The animals were all very much coiled in a close spiral, which made counting of the somites and exact determination of the length difficult. So far as I could determine, the body is about 50 mm. long, and the average specimen has a prostomial width of 0.5 mm. There are 45 or 46 elytra covering the entire dorsal surface of the body to the extreme posterior end. In the preserved material the elytra have a ground color of a pearly white, with pigment over the elytrephore in a somewhat diffuse patch, while from this patch a narrower and much more sharply defined band extends around the elytron, leaving the margin uncolored. In the entire animal the diffuse part of the pigment is covered in each elytron by the overlapping of the one anterior to it, so that the most striking feature is the succession of ringed elytra. In the first elytron the diffuse patch around the elytrephore does not occur.

¹Scientific Results of the American Museum Congo Expedition. General Invertebrate Zoology, No. 7.



Figs. 1 to 8. *Acholoe orbiculata*, new species.

- Fig. 1. Anterior end, $\times 22.5$.
 Fig. 2. First elytron, $\times 22.5$.
 Fig. 3. Posterior elytron, $\times 22.5$.
 Fig. 4. First parasodium, $\times 45$.
 Fig. 5. Later parasodium, $\times 22.5$.
 Fig. 6. Anal cirri, $\times 45$.
 Fig. 7. Ventral seta, $\times 185$.
 Fig. 8. Dorsal seta, $\times 185$.

The prostomium (Fig. 1) is oval in outline, a little longer than broad, and with the anterior margin on either side rounded instead of being prolonged into peaks. The median tentacle is carried on a large cirrophore, which is inserted in the front of the prostomium, its terminal joint being only about twice as long as the cirrophore, tapering gradually to an acute point. The cirrophores of the lateral tentacles apparently arise on the level of the margin of the prostomium, but are really very slightly below it. The cirrophore is about as long as the terminal joint, which is acutely conical. The palps are rather slender, extending beyond the tentacles. The dorsal tentacular cirrus is larger than the ventral and extends about to the apex of the palp. Both palps and tentacular cirri have a few colorless papillæ, visible only under a magnification of 75 to 100 diameters. The large first elytraphores bound the prostomium postero-laterally and there are two pairs of eyes, one pair at the posterior margin, and the other pair toward the anterior end. From a dorsal view, these appear to be very small, though they are really of a moderate size, but lie far enough under the curve of the prostomium to be partly hidden from the dorsal view.

Dorsal cirri (Fig. 5) are long and slender. There is one pair of anal cirri, rather stout processes, arising from the ventral surface of the pygidium (Fig. 6). The first elytron (Fig. 2) differs from later ones (Fig. 3) only in size and in the lack of the diffuse pigmentation around the elytraphore. All elytra have smooth margins and no trace of surface papillæ.

The first parapodium (Fig. 4) has dorsally the elytraphore of the first elytron. The notopodium is smaller than the neuropodium and carries a single acicula and a tuft of setæ of the sort shown in Fig. 8. The setal portion of the neuropodium has an anterior and a posterior lip, the former being the larger, with an acicula a trifle larger than the notopodial, and a tuft of setæ like those in Fig. 7. The slender ventral cirrus extends beyond the end of the parapodium. A posterior parapodium (Fig. 5, drawn to a scale one half that of Fig. 4) has much the same outline as that of the first, but is much larger, and in the case of cirrus-bearing somites, as is shown in the figure, there is a slender dorsal cirrus, extending beyond the apex of the parapodium. Dorsal to the cirrus, on the body wall, is a fold which was somewhat distorted in outline in the specimen figured, but which, on a surface view of the entire animal, has an outline like that of a hammer head. This is apparently a respiratory organ.¹

The dorsal setæ (Fig. 8) are smaller than the ventral, with a bluntly rounded shaft, carrying toward the apex two rows of teeth, each tooth in the form of a narrow plate denticulated on its margin. Only one of these rows of teeth can be seen in the profile view shown in the figure. The ventral setæ (Fig. 7) are much larger with their shafts heavier, and enlarged near the apex. Along this enlarged portion, extend two rows of teeth like those on the dorsal setæ. As in the latter case only one row appears in profile.

¹The presence of processes like these led Grube (1855, 'Beschreibung neuer oder wenig bekannter Anneliden,' Wiegman, 'Archiv. f. Naturgesch., I, p. 81) to describe as *Polynoë malleata* a form from Trieste. McIntosh has later (1900, 'Monograph of the British Annelids,' Pt. II, Ray Society, p. 397) identified this with Clapere'de's *Acholoë astericola*, a form apparently closely related to *A. orbiculata*, but differing from it in the character of the elytra. In his diagnosis of the genus *Acholoë*, McIntosh (*loc. cit.*, p. 396) states that the dorsal cirri occur on every foot, but in his description of *A. astericola* he says that the T-shaped lobes occur in the cirrigerous feet. In *A. orbiculata* I find that, as is the rule, elytron-bearing somites alternate with cirrigerous ones. Grube's original description of *Polynoë malleata* stated that there are 39 elytra, while McIntosh gives 45 as the number in *A. astericola*, but the latter author regards the two as synonymous. The arrangement of setæ is the same in the posterior as in the anterior somites, and there is a slender ventral cirrus, not differing much in outline from the anterior ones, but very much shorter.

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FRANK E. LUTZ, Editor

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