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## POLYCHAETOUS ANNELIDS FROM THE PHILIPPINE ISLANDS IN THE COLLECTIONS OF THE AMERICAN MUSEUM OF NATURAL HISTORY

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### Nereidae

#### PERINEREIS KINBERG

##### *Perinereis cultrifera* Grube

*Perinereis cultrifera* GRUBE, *teste* Fauvel, 1923, pp. 352, 354, Fig. 137.

Collected at Padado Beach, Gulf of Davao, Philippine Islands, by Oesch.

##### *Perinereis oliveirae* Horst

*Perinereis oliveirae* HORST, *teste* Fauvel, 1923, pp. 354, 355, Fig. 138.

Collected at Padado Beach, Gulf of Davao, Philippine Islands, by Oesch.

#### CERATONEREIS KINBERG

##### *Ceratonereis longicauda*, new species

Figures 1-7

The type is 170 mm. long and 7 mm. wide in the anterior region, narrowing to a width of 1 mm. at the pygidium. Characteristic features are this extreme posterior narrowing, an excessive development of notopodial pigment, especially in the posterior somites, and the slender anal cirri which in the type are 10 mm. long. A second entire specimen is 80 mm. long and a third, in two parts but evidently the entire body present, 40 mm. The last is the only one in which the head structures are well preserved, and figures of head and parapodia are drawn from that, after comparative study had shown that there are no important structural differences between them except as noted below in the paragnaths. The type is an adult female carrying immature eggs but with no sign of any epitokous features.

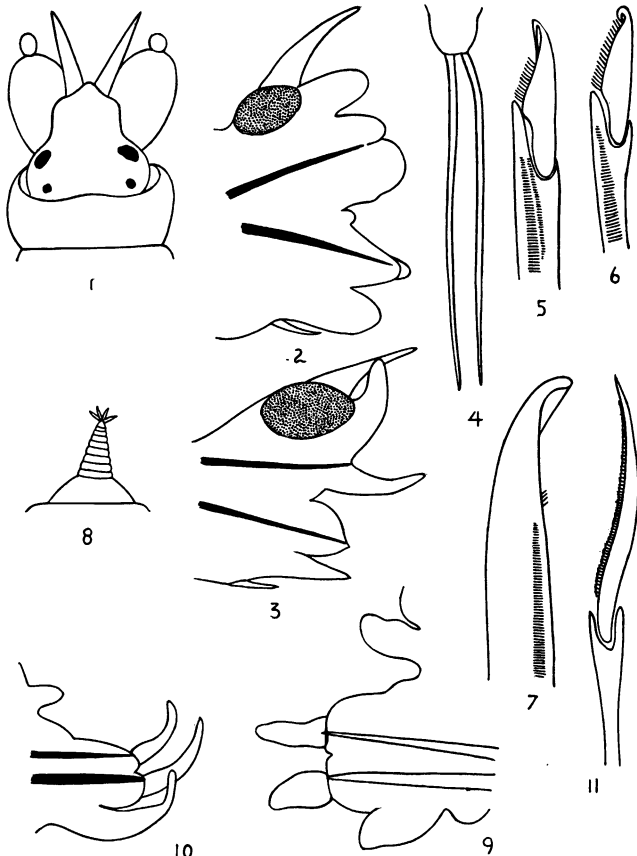
Width of prostomium (Fig. 1) at its base is a little more than its length, and the lateral margins are rounded to a point just in front of the anterior eyes where they bend abruptly inward so that width of terminal portion is about one half that of basal. The lateral margins of this terminal portion are nearly parallel to one another, and its apex is a blunt cone with a flattened area on either side to which the tentacles are attached. These are rather stout, their length rather more than one half that of the

prostomium, their apices reaching beyond the terminal joints of the palps. At their bases they are separated by a distance equal to about one half of their basal diameter. The eyes are prominent, the anterior ones about twice as large as the posterior, the two pairs located as indicated in Fig. 1. The palps have heavy, rounded bases, the terminal joints spherical.

In the smallest specimen the pharynx was protruded and the paragnath arrangement easily seen. In the others dissection was necessary for their study. As is characteristic of the subspecies there are no paragnaths on the basal pharyngeal joint. In the type each bunch of paragnaths is situated on a brown area having clean cut outlines so that the paragnaths look as if first attached to a plate and this plate then fastened to the pharynx wall. The formula is: I, 4 large denticles in a longitudinal row; II, on right side 4 large denticles in a row with at one end 5 and at the other 1 much smaller ones; on the left a similar row but with 6 smaller at one end and 1 at the other. Each of these rows is crescent shaped; III, a circular patch carrying 7 denticles with near it a much smaller patch carrying only 1; IV, a bean shaped patch on either side, that on the right with 8 denticles, that on the left with a fewer number, but apparently they had been injured so that the count is uncertain. In the other two specimens this structure is different. In each group there is a faint indication of the underlying brown patch and the formula is: I, 1 heavy dark spine; II, a crescent shaped patch of 6 to 8 denticles; III, 3 denticles in a longitudinal row; IV, on right side 4 and on left 2 denticles with smaller dark spots which may represent rudimentary ones. The differences between these and the type obviously are due to age. The jaws are dark colored with four denticulations in the smallest specimen. They were broken in the type.

In the smallest specimen the notopodial pigment patches appear first at the fourth somite, in the type at about the thirtieth, and continue to the extreme posterior end.

The tenth parapodium (Fig. 2) taken from the smallest specimen has mostly thick distally rounded lobes all slightly pigmented and has a patch of pigment on the notopodium. The dorsal cirrus has a broad base and extends beyond the apex of the notopodial lobe. There



Figs. 1-7. *Ceratonereis longicauda*: 1, head,  $\times 10$ ; 2, tenth parapodium,  $\times 22.5$ ; 3, fiftieth parapodium,  $\times 22.5$ ; 4, pygidium with anal cirri,  $\times 5$ ; 5, neuropodial seta No. 2,  $\times 250$ ; 6, neuropodial seta No. 4,  $\times 250$ ; 7, neuropodial seta No. 5,  $\times 250$ .

Figs. 8-11. *Glycera spadix*: 8, head,  $\times 16$ ; 9, anterior parapodium,  $\times 45$ ; 10, posterior parapodium,  $\times 45$ ; 11, seta,  $\times 250$ .

are three notopodial lobes of approximately equal length. There is a heavy bundle of setae in the setal lobe, and the black acicula comes to the surface between the second and third lobe. The neuropodium has a pointed setal lobe with anterior and posterior lips, the former a little longer, and a rounded ventral one. The acicula comes to the surface in the setal lobe. Aside from possibly having a little more pointing at the ends of the lobes the corresponding parapodium in the other specimens differs in no respect from this.

In the region of the fiftieth parapodium (Fig. 3) the notopodium has two pointed lobes with the acicula coming to the surface between them. This specimen was slightly distorted in that the upper lobe is bent dorsally. The pigment patch

is very prominent. The neuropodium has a rounded setal lobe with an acute tip into which the acicula extends and a pointed ventral lobe. The ventral cirrus is small and sharp pointed in all parapodia.

The pygidium (Fig. 4) is a dome shaped structure carrying anal cirri that in the type are 10 mm. long. In the median sized specimen they are badly tangled with the posterior parapodia, and no measurements were attempted. They were lost in the smallest specimen.

In the tenth parapodium the notosetae are in a dense tuft, all homogomphous, compound, slender, colorless, the terminal joints long and slender with acute apices and a marginal row of minute spines sometimes difficult to see. In the neuropodium are several kinds of setae.

Taken in order of their dorso-ventral arrangement are (1) similar to those of the notopodium; (2) much heavier ones, the stalk heterogomphous, the terminal joint relatively short, its concave surface carrying a row of spines for about one half of its length and a terminal shield bending back from the apex to meet the body of the joint at the end of the row of spikes (Fig. 5). These two are in the dorsal portion of the setal tuft. In the ventral are (3) setae similar to those of notopodium, but they are heavier and basal joints heterogomphous; (4) setae with basal joints similar to (2) but smaller. The terminal joint differs from those in (2) in that the marginal spines extend for the full length of the marginal line and the terminal shield is small (Fig. 6); (5) occasionally found in anterior somites but noticeable in posterior parapodia of the type are some much larger than any of the others which look as if they arose from a fusion of the two joints of No. 2 with a loss of marginal spines and shield. In some, a faint indication of spines may be seen (Fig. 7).

The type and median sized specimen were collected at Padado, Gulf of Davao, Philippine Islands, by G. R. Oesch in September, 1939. The smallest specimen was collected by W. G. Van Name at Santa Cruz, Gulf of Davao, Philippine Islands. The type is No. 3240 in the collections of The American Museum of Natural History.

### Leodicidae

#### LEODICE SAVIGNY

##### *Leodice suviensis* Treadwell

*Leodice suviensis* TREADWELL, 1922, pp. 138, 139, Pl. II, figs. 8-13, text figs. 12-16.

Collected at Padado Beach, Gulf of Davao, Philippine Islands.

##### *Leodice coccinea* (Grube)

*Eunice coccinea* GRUBE, 1878, pp. 153-155, Pl. IX, fig. 1.

Collected at Padado Beach in considerable numbers. Some are labeled as collected by G. R. Oesch.

##### *Leodice collaris* (Ehrenberg)

*Eunice collaris* EHRENBURG, *teste* Grube, 1878, p. 158, Pl. IX, fig. 3.

Collected at Padado Beach.

### Glyceridae

#### GLYCERA SAVIGNY

##### *Glycera spadix*, new species

Figures 8-11

The type is the only specimen in the collection. Because of distortions it is difficult to get accu-

rate measurements, but it is about 70 mm. long. At a distance of 20 mm. from the anterior end it is 3 mm. wide, but since this is followed by a narrow region and this again by a wider, it would seem that these are temporary distortions rather than permanent features. There is a considerable crowding of the anterior somites so that the prostomium overhangs the anterior parapodia. The prostomium (Fig. 8) is about 1 mm. long with a broad, conical base. As far as I could determine it has eight rings, and there are four rather long tentacles at the apex. The pygidium is narrow and carries a rather long anal cirrus. From the position of this cirrus it would appear that one other had been lost.

The parapodia are prominent, their length being approximately the same throughout the body. As seen in the entire animal, the proportion of length to width is greater than is indicated in Figs. 9 and 10, and it is possible that there may have been some compression in mounting which would have flattened and widened them. All are uniramous. In anterior somites (Fig. 9) the setal lip is vertical at its outer margin, with a small notch in the middle. Anterior to this are two cirrus-shaped lips extending well beyond the ventral lip. The dorsal cirrus is an oval lobe situated on the body wall at a short distance from the parapodium. The ventral cirrus is a short, blunt-ended lobe, shorter than the setal lobe. There are two colorless aciculae, difficult to distinguish from the setae stalks.

Posterior parapodia (Fig. 10) have the notched posterior lip and the anterior cirrus-like lobes much as in the anterior region, and the dorsal cirrus is on the body wall. The anterior lobes are longer than in anterior somites, and the ventral cirrus is drawn out into a lobe similar to the anterior ones but shorter. Because of obvious distortion all cirri are more or less abnormal, and the figures are thus to a certain extent diagrammatic.

The setae are relatively colorless and few in each parapodium. Three groups may be distinguished: (1) In the specimen studied only four in the bundle, which lies posterior to the dorsal anterior lobe. They are all simple, long, widen to a diameter not quite twice the stalk width, then curve and narrow to an acute point. On the convex margin is a narrow wing minutely toothed. Under high magnification the stalk shows a shagreen-like granulation. (2) Lying in the space between the two anterior lobes is a tuft of compound setae whose stalks are generally long and sometimes extend beyond the ends of the anterior lobes. They are homogomphous. The terminal joint (Fig. 10) is long and sharp-pointed, and it has on one margin a wing much like those of the dorsal tuft. (3) Coming to the surface just posterior to the ventral one of the anterior lobes is a group of six to eight setae. They are longer than those of the middle tuft but in other respects are very like them.

The type was collected at the Gulf of

Davao in the Philippine Islands by W. G. 3241 in the collections of The American  
 Van Name in November, 1936. It is No. Museum of Natural History.

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