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NEW SPECIES OF POLYCHAETOUS ANNELIDS FROM MASSACHUSETTS AND CALIFORNIA

By A. L. TREADWELL

Syllidae

TYPOSYLLIS LANGERHANS

Typosyllis aciculata, new species

Figures 1-5

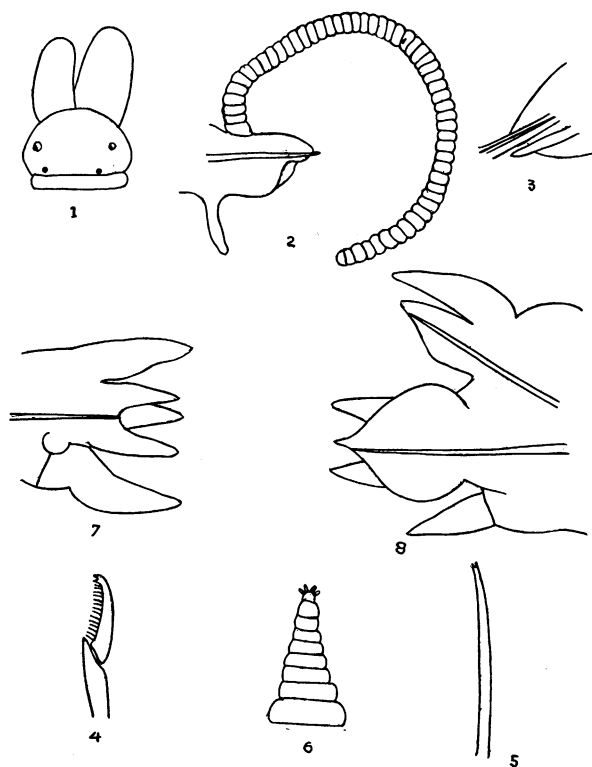
Two specimens collected on rocks near the laboratory at Pacific Grove, California, July 19, 1939. The type is 6 mm. long and about 0.4 mm. in greatest diameter, which is at about one-third of the body length posterior to the anterior end. The prostomium (fig. 1) is rounded on its anterior margin, its width being about twice its length. There are two pairs of eyes, the anterior pair being larger and farther apart than the posterior and provided with lenses. The palps are entirely separated at the bases and are asymmetrical in both specimens. In the type the left is the larger; in the other it is the right, the size difference being less in the type. Somite I is a little narrower than the prostomium, but the following ones widen so that at the twentieth somite they are twice as wide as the prostomium. The antennae and all dorsal cirri are distinctly moniliform (fig. 2). In both specimens the median antenna has been lost and so many cirri broken away that comparative measurements are of no value. In both specimens this breakage has been greatest in the median body region, so that there appears to be a grouping of cirri at both anterior and posterior ends. There is one pair of heavy anal cirri, each composed of about 16 joints.

The pharynx begins at the sixth setigerous somite and extends for six somites behind this. Its anterior margin is smooth, and there is a median tooth at its anterior end. The proventriculus extends through nine somites.

The increase in body width following the

first somite is accompanied by an increase in somite length which continues to about the median body region, although the rate of increase diminishes after the first few somites. Most of the median body cirri have been lost, but what remain indicate that they are generally shorter than those at either end of the body. These latter are longer than the body diameter.

The parapodia (fig. 2) are roughly conical in outline, with an anterior and posterior lip and the dorsal portion overhanging the ventral. Figure 2 is a face view of a parapodium from the middle of the body showing the dorsal and ventral cirri, the former long and very distinctly moniliform, the latter inserted near the base of the parapodium and extending about halfway to its apex. Compound setae occur in each setigerous somite. The stems (fig. 4) have the usual truncated apices; the terminal joints are roughly triangular, each with an apical and a subapical tooth and a row of stiff spines along one margin. In posterior somites only, occur a simple form of seta which has about the same diameter as the basal joint of the compound and is very minutely bidentate at the apex (fig. 5). I have found only one of these in any one somite. In posterior somites occur very heavy aciculae lying dorsal to the setae and protruding from the surface. Figure 3 is a dorsal view of the parapodium showing the acicula and two stalks of the compound setae. I think that this acicula is not found in the most anterior somites. To determine this point would involve destroying so many parapodia on the single, type, specimen that it seemed not worth while. The other specimen had unfortunately partially dried during the study and was not available for this purpose.



Figs. 1-5. *Typosyllis aciculata*, new species. 1, Anterior end, $\times 90$; 2, parapodium, $\times 27.5$; 3, posterior parapodium, $\times 180$; 4, seta, $\times 500$; 5, seta, $\times 250$.

Figs. 6-8. *Goniada magna*, new species. 6, Head, $\times 14$; 7, anterior parapodium, $\times 27.5$; 8, posterior parapodium, $\times 10$.

The type is No. 3386 in the collections of the American Museum of Natural History.

Goniadidae

GONIADA AUDOUIN AND MILNE EDWARDS

Goniada magna, new species

Figures 6-8

A single incomplete specimen collected on Georges Bank, Massachusetts. The portion remaining is the anterior end and is 120 mm. long, with a width of 4 mm. The pharynx is protruded to a distance of 15 mm., and dissection shows that the invaginated portion is 6 mm. long, making a total pharynx length of 21 mm. On either side of the protruded pharynx is the characteristic row of black chevrons, about 21

in number and so closely packed together that it is difficult to determine the precise number. From the center toward either end of each row the individual chevrons gradually decrease in length so that the row has the form of an elongated narrow spindle. At the apex of the pharynx is a marginal row of about eight stout papillae. Proximal to these are two relatively large three-pronged denticles with numerous smaller denticles in rows around them. The larger pair have a diameter of about 0.75 mm. each.

The prostomium is 2 mm. long and composed of eight rings with four short tentacles at the apex (fig. 6). At the base it is 1 mm. wide. The peristomium is distorted due to the protrusion of the pharynx, but apparently its ventral surface length is

about the same as that of the basal joint of the prostomium.

The change from the uniramous to the biramous form of parapodium takes place at about the ninetieth somite. The twenty-second parapodium (fig. 7) has a broadly lanceolate dorsal cirrus and a thicker but shorter ventral cirrus, the latter attached by a broad base to the ventral surface of the parapodium. The setal portion has three conical lobes, two posterior and one anterior, all of approximately the same size. There is a single stout acicula. The setae are all composite. Behind the region of the ninetieth somite a notopodium is added.

In the parapodia of this region (fig. 8), the anterior lobe of the setal portion of the neuropodium is broadly ovate with a pointed apex and is broader than the posterior lobe. The notopodium has an anterior and a posterior lobe, the latter shorter and more rounded than the former and does not show in the figure because concealed by it. The dorsal cirrus is heavy and longer than the setal portion. Each half of the parapodium has a large acicula.

In the anterior parapodia the setae are arranged in two bundles, one above and

one below the setal lobes, all compound, heterogomph, the terminal joint not extending much beyond the apex of the parapodium. The notopodial setae in the posterior body region are all simple, very long, slender, and sharp pointed. The entire surface of each seta is finely sculptured with minute lines.

In the peculiar, closely packed, lateral chevron rows, the terminal papillae, and denticle arrangement this species shows a very close resemblance to Verrill's figure of *G. gracilis* (Hartman, "New England Annelida, Part 2," 1944, Bull. Amer. Mus. Nat. Hist., vol. 82, pl. 15, fig. 2), but no resemblances are noted in Verrill's description of the species (as *Oeone*) ("Invertebrates of Vineyard Sound," 1872, Rept. U. S. Commissioner of Fisheries, vol. 52, p. 596). A notable difference is that in Verrill's specimen the change from one to two branched parapodia takes place at the thirtieth somite.

Collected at latitude 40° 20' N., longitude 67° 12' W. in 300 meters depth by the "Albatross." The type is No. 3387 in the collections of the American Museum of Natural History.

