

TWO NEW SPECIES OF POLYCHAETOUS ANNELIDS FROM THE ARGENTINE COAST

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Through the kind offices of the United States National Museum I have been enabled to study the annelids of the collections made by the well-known Uruguayan naturalist, Dr. Florentino Felippone, of Montevideo. In the material last sent me there are two new species described as *Halosydna grisea* and *Leodice argentinensis*. The types are in the collections of the National Museum.

HALOSYDNA GRISEA, new species

The type (Cat. No. 19279, U.S.N.M.) (Felippone No. 3250), from the "coast of Argentina," is 40.5 mm. long; the greatest body width, measured to the margin of the elytron on either side, is 5 mm. The prostomium is 1 mm. wide, its length about equal to its width. The anterior margin of the prostomium is prolonged on either side into the cirrophore of the lateral tentacle, which is about half as long as the prostomium. (Fig. 1.) In the type the partially protruded pharynx pushes the prostomium dorsally so that the posterior margin is straight instead of notched and the narrowing at the base of each lateral cirrophore is not clearly seen. The anterior median groove is well marked and its postero-dorsal continuation divides the prostomium into hemispheres. The anterior eyes are larger than the posterior and are situated at the point of greatest width of the prostomium. Both pairs have lenses; the anterior one faces dorsally, the posterior one laterally. The prostomium (in preserved material) is colorless, the cirrophores and basal portions of the tentacles colored brown, with an uncolored portion at the cirrophore apex.

The tentacles are all rather slender, pigmented only toward their bases, of uniform diameter to the end, but terminating in a fine point. The style of the median tentacle is about as long as the prostomium and median cirrophore taken together. The styles of the lateral tentacles are more slender than the median and extend to about one-half its length. In the type only one palp remains, and this is badly broken. In another specimen the basal portion of the palp is one-half the width, and its total length fully five times the length of the

prostomium. It tapers very gradually to the apex, which is badly preserved, so that its precise form is uncertain. The tentacular cirri are shaped much like the lateral tentacles, and the ventral ones are about equal to them in length.

There are 21 pairs of elytra. The first pair are large, broadly oval in outline, and apparently in life completely cover the prostomium. Elytra 3 to 7 leave uncovered a considerable dorsal area in this preserved material, and it looks as if this holds true for the living animal as well. Behind the region of the eighth elytron the dorsal body surface is completely covered by the elytra. The last elytron is on the fourth somite from the pygidium. All elytra are similar in outline (fig. 2), and all are irregularly blotched with pigment. When the pigmentation is dense the point of attachment of the elytophore shows as a prominent white spot. In all cases this place is free from pigment, but when the pigment is more diffuse it is continuous with other unpigmented areas and hence is less prominent. The pigment is in small patches which may show as colored spots each with a colorless center, or the patches may be in contact, in which case the pigment is continuous with scattered white spots in it. The elytra toward the anterior end of the body have a few short marginal cilia, but I was unable to find any on those toward the median and posterior regions. Near the lateral margin of the elytron, and visible only under considerable magnification, are small blunt spines. For a certain distance these are arranged in a double row parallel with the elytron border, while others are irregularly scattered over the surface. They are not shown in Figure 2 because not visible at the magnification at which that was drawn.

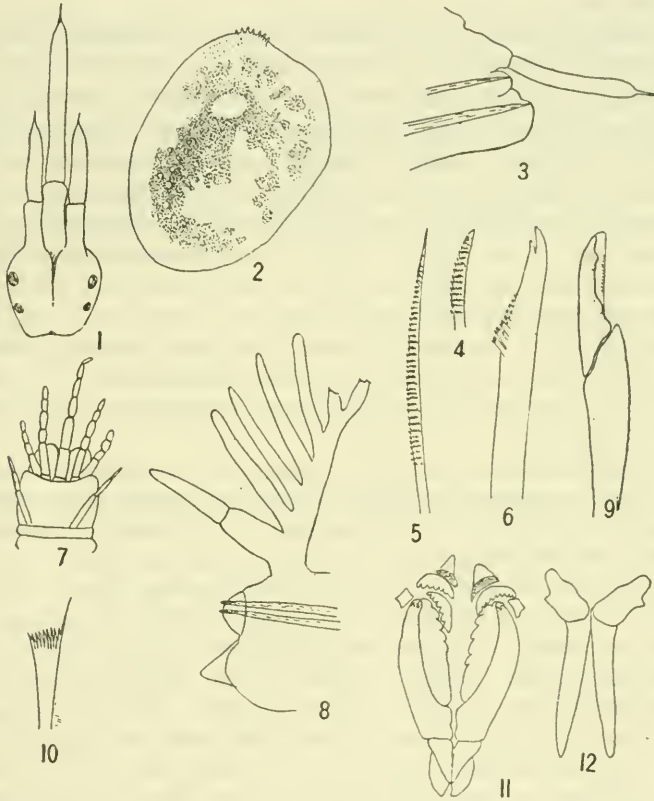
The dorsal cirri are throughout equal in length to about one-half the body diameter. At the apex each tapers abruptly to an acute tip without any subterminal swelling. There evidently was in life a subterminal band of pigment. The posterior cirri are stouter than the others but similar to them in other respects, and the anal cirri resemble the last pair of dorsal ones.

A parapodium (fig. 3) has a stout neuropodium, with very little distinction between anterior and posterior lips. The notopodium is globular in outline and is very small. The cirrophore of the dorsal cirrus is longer than the notopodium and its style extends for fully three-quarters of its length beyond the apex of the neuropodium. Each lobe of the parapodium has an acicula. The dorsal setae are of two kinds. The first (fig. 4) are stout and short, hardly extending beyond the notopodial apex. The shaft curves and narrows to an acute tip and there are rows of teeth along the convex margin. These setae form a fan-shaped bundle. The second kind are much longer and more slender, but carry a similar equipment of teeth (toothed plates). (Fig. 5.) The ventral setae (fig. 6) are very much

stouter and extend to about midway of the dorsal cirrus. The shaft is of uniform width to near the end, where it narrows to a blunt point. There is a subapical tooth, and there are rows of toothed plates proximal to the latter.

LEODICE ARGENTINENSIS, new species

In the collection are three specimens of *Leodice*, none of which is entire; but it seems best to record as much as possible, subject to



FIGURES 1-6.—*HALOSYDNA GRISEA*. 1, ANTERIOR END $\times 10$; 2, ELYTRON $\times 9.5$; 3, PARAPODIUM $\times 7.5$; 4, DORSAL SETA $\times 85$; 5, DORSAL SETA $\times 85$; 6, VENTRAL SETA $\times 85$. FIGURES 7-12.—*LEODICE ARGENTINENSIS*. 7, ANTERIOR END $\times 10$; 8, PARAPODIUM $\times 27.5$; 9, COMPOUND SETA $\times 250$; 10, PECTINATE SETA $\times 250$; 11, MAXILLA $\times 10.5$; 12, MANDIBLE $\times 10.5$.

correction if more material is available in the future. The largest of the three retains approximately 75 somites beside the head, these measuring 70 mm. in length. The peristomial width is 4 mm. and in the region of somite 10 the body width is 6 mm. Except that the tentacle tips are badly decomposed it is well preserved. One of the

others is so badly preserved that it is available only for setae and jaw study, while the third, very much smaller than the others, is in excellent preservation. This last has a prostomial width of 2 mm. and the first 34 somites are 15 mm. long. Behind the 34th somite the body is evidently undergoing regeneration for it is very slender and the appendages poorly developed. The drawing of the head and parapodia are taken from this specimen, that of the jaw from a much larger one. This should be remembered in considering the relative sizes of the two.

The prostomium (fig. 7) is bilobed, each half unusually rounded in outline, the eyes dark brown in color and with obvious lenses. The peristomium is about equal in length to the three following somites, its anterior margin straight, the anterior lateral angles only slightly rounded. The median tentacle extends as far as the anterior border of somite 7 and is composed of 6 joints, of which the first is about as long as the prostomium, the next a little shorter, the others shorter still but of about equal length. The intersegmental furrows are much more evident toward the distal end. The inner and outer paired tentacles are essentially similar in form to the unpaired but are progressively shorter. Somite 2 is about one-fourth as long as somite 1, and its nuchal cirri are very long, slender, and jointed. Throughout the body the dorsal cirri are rather stout, tapering in form, and two-jointed. (Fig. 8.)

In the small specimen the gills appear first as 2-branched organs on the third setigerous somite, in the larger animal they arise from this same somite and are 4-branched. In following somites the number in the smaller specimen are, respectively, 4, 5, and 6. In the larger they are 7, 8, and 9. In the latter animal there are 10 on somite 13. Between somites 5 and 22, where the body is widest, the gills are prominent and cover one-third of the dorsal surface of the body on either side. Behind somite 22 the body narrows and the gills become smaller and have fewer branches. They are present on the last somite of the fragment where they have three branches.

The tenth parapodium (fig. 8) has a setal lobe with a straight anterior lip and a longer pointed posterior one, with two straight aciculae coming to the surface between them. The ventral cirrus is a triangular lobe on the end of a globular swelling, the dorsal cirrus is stout and two-jointed. The main stem of the gill, which rises near the base of the dorsal cirrus, is almost equal to the cirrus in diameter and the diameter decreases very little up to beyond the point of origin of the fourth gill-branch. There are six branches, the tip of the last two having been broken in the one figured. Relatively to the size of the parapodium the gill structure is heavy. Posterior to about the twentieth somite the globular swelling which carries the ventral cirrus disappears and a ventral hooked acicula comes to the surface ventral to the setal lobe. All aciculae are black and visible to the naked eye as dark spots on the parapodia.

The compound setae (fig. 9) are stout, the apical joint having blunt apical and subapical teeth. There is a row of denticulations along the margin of the shield. The pectinate setae (fig. 10) are few in number in each somite and rather small. At the apex there are 10 teeth, of which the one at one end is much longer than any of the others. The simple setae are long and of the usual structure, with very minute striations along the margin. The jaw is sepia-colored, with very dark margins to the plates. The carrier is short, triangular in outline, with lateral lobes, the forceps rather heavy. (Fig. 11.) The right proximal paired plate has six teeth, the left has five. The right distal paired plate has nine, the left has seven, the unpaired has seven. Beyond each distal paired plate is a very dark triangular patch. The shafts of the mandibles are slender, sepia-brown in color, the terminal plate rather large and white. (Fig. 12.) The three fragmentary specimens may be considered as the cotypes of the species (Cat. No. 19280, U.S.N.M.) (Felippone No. 3008). They are from Mar del Plata, Argentina.

