The ventral region of the foot forms in antero-posterior view a broad process, the extremity sloping from the rounded tip downward and backward. The dull yellowish bristles have long straight shafts with comparatively short tips, which are boldly bifid after the manner of *Harmothoë marphysæ*. The bifurcation (Pl. VIIIA. fig. 14) shows a stout terminal or main division, and a well developed inferior one, the spinous rows beneath being proportionately large, and resembling those of *Lepidasthenia*, as is apparent in the antero-posterior view (Pl. VIIIA. fig. 15) of one of the same group, viz., the longer forms toward the upper part of the division.

The larger specimen had a considerable quantity of pale brownish ova attached to the dorsal surface of the posterior feet, extending beyond as well as elevating the scale-margins.

The cuticle of the body, especially that of the ventral surface, is remarkably thick; indeed it is considerably thicker than the hypoderm of the same region even in the middle line. The area between the oblique muscles is well marked, and the somewhat ovoid nerve-cords are distinct. They are bounded internally by a firm investment of connective tissue. In one example a few ova occurred in the perivisceral cavity. The structure of the body-wall is clearly defined and firm.

In transverse section (*in situ*) the proboscis shows a deep median longitudinal groove externally, situated somewhat nearer the dorsal than the ventral pole. Such is by no means common in the group.

The striped condition of this species is interesting in connection with the prevalence of conspicuously striped leeches in the fresh waters of Australia.

The foregoing form appears to be closely connected with the *Lepidonotus striatus* of Kinberg,[1] who found an imperfect specimen off Port Jackson, Australia, with thirteen pairs of scales. His figure, however, indicates that the anterior eyes are dorsal in position, and they are considerably smaller than in the examples from the Challenger. He does not refer to the peculiar condition of the dorsal cirri, and the outline of the foot is somewhat different, especially in the slope of the distal margin and in the brevity of the ventral cirrus. His figures of the bristles are also more or less at variance, and he appears to have selected one of the shortest dorsal forms. It is possible, however, that many of these differences are due to his artist. There is little in the description of Grube's *Polynoë fulvovittata*,[2] from Pandanon in the Philippines, to distinguish it either from the Challenger form or Kinberg's. It is true he speaks of eighteen scales only, but then his specimen was imperfect posteriorly. On the other hand, his figure of the scale is identical even to the occurrence of the scar of attachment between the two outer brown bands. He thinks the species approaches *Halosydna*. The *Polynoë australis* of Schmarda,[3] from Port Jackson, likewise comes near *Polynoë platycirrus* in the structure of the bristles, but the author does not mention the condition of the scales.

[1] Freg. Eugen. Resa, &c., p. 14, Tab. iv. fig. 18.
[2] Annel. Fauna der Philippinen, p. 33, Tab. iv. fig. 1.
[3] Neue wirbell. Thiere, I. ii. p. 154.