

The head (Pl. XV. fig. 6) has two prominent and somewhat rounded lateral lobes which end bluntly in front. Two rather small eyes are situated, widely apart, at the posterior border, and two on the lateral region—behind the middle line—the pairs on each side being thus approximated. The anterior pair are only partially seen from the dorsum. The tentacle is a smooth gently-tapered process about the length of the palpi. The antennæ and cirri are likewise smooth. The dorsal cirri have finely attenuated extremities, and present numerous granular cells, apparently in connection with fine radiating fibres, as well as the central axis. The palpi are rather short, gently tapered, smooth processes. The slender ventral cirrus reaches beyond the bases of the bristles, and has a filiform tip. The ventral papilla is minute.

The scales have a slightly opalescent or milky appearance, are translucent, and under a high power are minutely granular. Only a few short translucent papillæ occur along the free border (Pl. XIX. fig. 7). From the scar of attachment fine branching fibres radiate outward. They seem to number about eighteen or twenty pairs, and to cover the dorsum completely.

The feet are comparatively long, and in some are so translucent as to show large nucleated cells rolling in their anterior. The bristles are pale. Those of the dorsal branch are elongated, and have a slightly bent smooth tip (Pl. IXA. fig. 8). The rows of spines are both closely arranged and minute, so that at first sight the bristle seems merely marked by transverse lines. Very few bristles surpass these in the delicacy of the spinous rows.

The ventral bristles are quite as pale and translucent, and their tips are very finely serrated, the rows of spines being so minute toward the hooked tip that they are with difficulty distinguished (Pl. IXA. fig. 9, representing an intermediate form). The superior group possesses very much longer and more attenuated, and the inferior much shorter tips than the specimen figured. The close similarity in the facies of both dorsal and ventral bristles is interesting.

This Annelid is not mentioned by Capt. Chimmo as a "parasite" of *Euplectella*.<sup>1</sup> Commensalism, however, is frequent in the family.

In the transverse section of a female the ova are comparatively large, and form conspicuous organs in the perivisceral cavity. The nerve-cords are flattened.

*Polynoë* (?) *ascidioides*, n. sp. (Pl. XXXIIA. figs. 3-5).

*Habitat*.—Found by Prof. Herdman inside the branchial chamber of an Ascidian, trawled at Station 160 (south of Australia), March 13, 1874; lat. 42° 42' S., long. 134° 10' E.; depth 2600 fathoms; bottom temperature 33°·9, surface temperature 55°·0; red clay.

Only a single injured example occurred, its total length being about 14 mm., and its

<sup>1</sup> On *Euplectella aspergillum*, 4to, London, 1878.