

at the bases of the feet. Extravasations of blood existed between the alimentary wall and the muscular sling surrounding it.

Eunice tribranchiata (Pl. XXI A. figs. 6, 7).

Habitat.—Dredged at Station 186 (off Cape York, Australia), September 8, 1874; lat. $10^{\circ} 30'$ S., long. $142^{\circ} 18'$ E.; depth, 8 fathoms; surface temperature, $77^{\circ} \cdot 2$; sea-bottom, coral mud.

A fragment of the posterior end, measuring about 48 mm. in length, with a breadth at its anterior part of 4 mm. The tail is not present. The body is somewhat flattened and comparatively soft.

Each foot bears dorsally a long branchial process of three (rarely four) divisions, the first of which comes off inferiorly, and the main stem then divides into two long and nearly equal branches. So close to the base do all these processes spring that at first sight the common stem is overlooked. To those with four divisions, however, this remark is not applicable. The dorsal cirrus is short and tapering; the ventral is also short and somewhat conical.

Dorsally in each foot is a tuft of simple tapering bristles, the wings just being visible. The brush-shaped forms have upwards of twelve filaments, one of the lateral being longer. In the compound bristles (Pl. XXI A. fig. 6) the tip of the shaft is rather abruptly bent and dilated, so that the internal striæ are oblique. The distal piece has a small terminal and a large main fang.

Besides the foregoing, each foot has a powerful blackish spine, with a curved tip superiorly. Inferiorly the two dark brown hooks (Pl. XXI A. fig. 7) have an erect terminal process and a strong main fang.

The intestinal masses contained sandy mud with a few fragments of Algæ, sponge-spicules, and Foraminifera.

The great distention of the alimentary canal had stretched both dorsal and ventral longitudinal muscles. The nerve-area is wide, and the cords thin and flattened. The vertical muscles passing from the alimentary canal to the hypoderm bound the area. These muscles enclose a somewhat triangular space, narrow above and broad below, the lower boundary being formed by the nerve-cords. An indistinct neural canal is visible superiorly, but none of the preparations show an inferior one. Indeed, some doubt remains concerning the latter point.

This form approaches *Eunice equibranchiata* from the coast of Brazil, but differs from it in the structure of the branchiæ, the minute structure of both bristles and great hooks, the latter in the Brazilian form having the main fang lengthened.