

especially laterally, and in possessing a median lateral fold on each side, so that the cavity is quadripartite. A small ridge also occurs at the ventral pole. Exteriorly the organ has the usual hyaline chitinous investment, within which the dense fibres radiate outwards with a curve, the concavity of which is directed for the most part toward each pole. The circular fibres of the region are also more distinctly marked throughout than usual in the Polynoidæ. The hypoderm presents an interesting diversity in thickness; thus above the pole with the ridge it increases in bulk and again diminishes at the median fold, while toward the opposite pole it forms a much thicker layer. It is marked by numerous clear globules,—the homologues of the ordinary hypodermic globules,—which give a character to the organ. The internal cuticular lining is thick.

*Eulepis challengeræ*, n. sp. (Pl. XX. fig. 1; Pl. XXIII. fig. 1; Pl. XXIV. fig. 1; Pl. XIV. figs. 7, 8).

*Habitat.*—A fragment of the anterior end was dredged off Sombrero Island, West Indies, in from 390 to 450 fathoms.

This species is smaller than the preceding, the fragment having a diameter of a little more than 2 mm., and a length of 7 mm.

The head much resembles that of *Eulepis wyvillei*. There is a little blackish pigment on each side of the base of the tentacle, but no definite eye as in Grube's form. The tentacle has an enlarged base, but the distal portion is little diminished from its commencement, and has a blunt tip. On each side is a short, blunt antenna. The palpi resemble those of the previous species. The tentacular cirri have the same disposition, viz., an inferior thicker and a more slender superior and outer. There is a slight elevation in the situation of the ventral papilla, but it scarcely forms a process at the posterior margin of the foot-fold.

The scales have a similar texture, but no notch is present externally. The first pair, like the second and third, are small and irregularly rounded; each, moreover, being transversely and not antero-posteriorly elongated. This saves space, since the papillæ supporting them are on adjoining segments. They are quite smooth. Marginally they show a number of clear areolæ.

The structure of the foot (Pl. XXIV. fig. 1) agrees in the main with the foregoing, but the dorsal hamate bristles (Pl. XIV. fig. 7) have the convex edge of the geniculated region distinctly serrated, whereas in the former species it is quite smooth. The single pectinate bristle (Pl. XIV. fig. 8) at the superior edge of the inferior division also differs in having a shorter and stouter tip, the curvature of which, moreover, is more decided.

There is little in the structure of the body-wall to distinguish it from the foregoing. In regard to the proboscis, the radiate fibres are somewhat coarser, while the circular