

*Polynoë ocellata*, n. sp. (Pl. XII. fig. 3; Pl. XIIA. figs. 18, 19).

*Habitat*.—Dredged in considerable numbers as a commensalistic form in the tubes of *Spiochaetopterus challengeræ* at Station 233A (off Kobé, Japan), May 19, 1875; lat. 34° 38' N., long. 135° 14' E.; depth, 50 fathoms; surface temperature, 62°·6; sand. The species thus follows the habit of *Polynoë scolopendrina*, Sav., in the tubes of *Terebella nebulosa* in the Outer Hebrides, of *Polynoë marphysæ*, M'I., in the tubes of *Marphysa sanguinea* in the Channel Islands, and other forms.

The species is extremely elongated and narrow, reaching 60 mm. and upward in length, while its breadth, inclusive of the bristles, is about 2·5 mm.

The body is slightly tapered in front, but more so posteriorly, the tail being terminated by two short styles. The general colour of the dorsum is dull yellowish, marked with olive. Each segment is more or less barred transversely with dark olive bands, those in the middle of the body being divided into two squares by a median line, while the narrow anterior and broad posterior bands are interrupted in each segment. Ventrally the anterior fifth is pale, thereafter a blackish pigment-spot occurs at the base of each foot.

The head is shielded by the first pair of scales, and its transverse diameter exceeds its antero-posterior. On each side of the tentacle the anterior border has an acute peak, and the depressed median region behind the tentacle gives the usual bilobed aspect to the head. A large rounded eye is situated on each side a little in front of the lateral prominence, and a smaller one at the posterior border. The former are much wider apart than the latter. Both show a pale central region over the pigment, and this sometimes becomes elevated as a phlyctæna in the specimens, which are imperfectly preserved, from their position inside the tubes. The tentacle is not so long as the palpi, and tapers from the base to the terminal enlargement, which has a filiform process of considerable length at the tip. The antennæ are shorter than the tentacle and more slender, and the terminal enlargement is less marked. The palpi are fairly developed, gradually tapered toward the tip, which is abruptly filiform. The tentacular cirri resemble the tentacle. The dorsal cirri, again, while they show a distinct enlargement below the tip anteriorly, soon lose this, and the organs assume a simple filiform character. After the twentieth foot the cirri do not extend beyond the tips of the bristles till near the posterior end, where they again become a little longer than the tips of the bristles. All the foregoing organs are quite smooth. The ventral cirrus is short and subulate, the tip extending a little beyond the bases of the bristles. The ventral papilla is well marked, and as the eminence at its base is indicated by a pigment-speck throughout the greater part of the body, the arrangement is unusually distinct.

The number of scales is upwards of fifty pairs. The first scale is nearly colourless