

so that the outline of the head is somewhat like a broad and flattened Scotch thistle. The base of the tentacle is attached between the two posterior lobes, and is thus placed far backward. The organ is smooth, very long (extending beyond the tips of the palpi), and much tapered. The palpi are also smooth, of considerable length, and taper from base to apex. They show the usual dorsal ridge in the preparation. The tentacular and dorsal cirri are long, smooth, tapering processes with a slight swelling below the filiform tip. The ventral cirrus is very small or filiform, and does not reach the base of the ventral bristles. The ventral papilla is unusually large though short, and occupies the ordinary position. Traces of two large cirri occur on each side of the anus (which is terminal), but the condition of the posterior end does not admit of accurate description. The dorsal surface of the proboscis shows two papillæ, one beneath each flattened frontal lobe.

The pedicles of nine pairs of scales exist in the preparation.

The feet are largely developed, their soft parts considerably exceeding the breadth of the middle of the body, and the process for each spine is long and slender. The dorsal division bears a comparatively small number of brittle, flattened, iridescent bristles, of large size and devoid of serrations (Pl. XIIA. fig. 9). The tip is very gradually diminished, and ends in a somewhat blunt point. On the whole they are thin and fragile, from the large size of the internal cavity.

The ventral bristles are even longer in proportion and extremely slender, the flattened diaphanous spear-shaped tips showing obscure traces of spines along each side, one, however, being more distinctly serrated than the other (Pl. XIIA. figs. 10, 11, one of the smaller forms).

The testes formed thick and rather firm curved sacculi beneath the glandular intestine.

At first sight the form might readily have been mistaken for a *Hesione*. The state of the bristles somewhat resembles those in epitocous Nereides, and the massive external appearance of the body is evidently due to the development of the sexual elements.

The cuticle forms a thin investment ventrally, and the hypoderm is likewise attenuate. The median area is arched over by the oblique muscles which meet in the middle line. The cords are somewhat flattened. The muscles of the body-wall follow the ordinary type, but they are comparatively small. The proboscis is large, is devoid of median folds either dorsally or ventrally, and the circular fibres near the outer margin are developed more distinctly than usual. The hypoderm on the inner surface is deeply tinted (dark brownish).

*Polynoë (Robertianella) synophthalma*, n. sp. (Pl. XIV. fig. 4; Pl. XX. fig. 5; Pl. XIIA. figs. 12, 13).

*Habitat*.—An injured specimen occurred at Station 3 (in the Atlantic south of the Canaries), February 18, 1873; lat. 25° 45' N., long. 20° 14' W.; depth, 1525 fathoms; bottom temperature 37°·0, surface temperature 65°·0; hard ground.