

*Holothuria martensii*, Semper, 1868 (Pl. VII. fig. 12; Pl. XVI. fig. 2).

*Habitat*.—Station 188, September 10, 1874; lat. 9° 59' S., long. 139° 42' E.; depth, 28 fathoms; green mud; a single specimen. Station 203, October 31, 1874; lat. 11° 6' N., long. 123° 9' E.; depth, 20 fathoms; mud; one individual.

In the contracted state the body has a length of 150 mm., and is provided with conical papillæ, which become largest towards the sides of the body, where they form a longitudinal series along the line of junction of the dorsal and ventral surfaces. The largest papillæ have a length of about 7 mm. and a breadth at the base of about 4 mm. The papillæ, which are not very closely placed, decrease towards the middle of the dorsal and ventral surfaces; those on the dorsal surface being slightly more numerous and more distinctly pointed than the ventral ones, which seem to be more rounded. The closed mouth, which is ventral in position, is surrounded by a circle of smaller papillæ. The anus is terminal, roundish, and has a few very small papillæ on the margin. The tentacles are twenty (?), fully retracted and small. The colour is whitish or pale greyish on the sides, and darker on the dorsal and ventral surfaces from numerous, crowded, minute, brownish specks. The inside of the perisome is characterised by numerous small dark dots.

The calcareous ring (Pl. VII. fig. 12, c) is of the usual shape without posterior prolongations. The madreporic canal, 10 mm. long, terminates in a pear-shaped end. A single Polian vesicle, about 50 mm. long, is present. The genital tubes are twice or three times dichotomously branched. A thick bundle of short Cuvierian organs is present.

The calcareous deposits closely resemble those in *Holothuria ocellata*, to which this species is nearly related, excepting that the tables are provided with an elongated conical spire composed of four rods and as many as six or seven transverse beams. The top of the spire generally carries several small spines, but I have also found tables which are almost devoid of spines. Sometimes the four rods which constitute the spire of the tables carry spines, but I never found such large ones as those figured by Semper. The disk of the tables is rather large and pierced by more holes than in *Holothuria ocellata*. The tables (Pl. VII. fig. 12, a, b) measure from 0·1 mm. to 0·16 mm. in height. The papillæ have almost a spinous appearance from the long spires of the table. The numerous buttons and supporting rods of the papillæ are exactly like those in the above-named species. In this specimen also many elongated buttons with numerous holes in two rows are to be found, but those with six holes are the most common. The elongated buttons with numerous holes are rarer, and it is to be observed that the knobs on these are less prominent, sometimes nearly inconspicuous. Though the specimen does not fully agree with the description given by Semper, the similarity is very obvious. The specimen examined by Semper is much smaller.

The papillæ are supported by numerous solid rods which are either perforated at