

is very rough from the numerous calcareous deposits. The plates, or rather tables, which are by far more numerous than the "anchor-plates," and give to the integument its roughness, have a diameter of up to 0.24 mm. or more. Besides these fully developed deposits, many others are imbedded in the skin representing the different stages of development of the former. The irregularly formed "anchor-plates" may be best understood from the figures; their length is about 0.4 mm. The bodies belonging to the two kinds of deposits above mentioned often have a yellowish-brown colour resembling that of the small rounded or oval bodies, and I have not seldom met with colourless deposits which have begun to change in this respect.

Genus *Trochostoma*, Danielssen and Koren, 1878 and 1882.

*Trochostoma violaceum*, Studer, 1877 (Pl. II. fig. 4; Pl. XI. fig. 1).

*Habitat*.—Royal Sound (Kerguelen Islands), 20 to 50 fathoms; numerous individuals. Betsy Cove (Kerguelen Islands), January 9, 1874; lat. 49° 16' S., long. 70° 12' E.; depth, 20 to 25 fathoms; one specimen. Christmas Harbour (Kerguelen Islands); depth, 120 fathoms; one specimen. Station 169, July 10, 1874; lat. 37° 34' S., long. 179° 22' E.; depth, 700 fathoms; bottom temperature, 40.0; blue mud; one specimen.

The body is fusiform, anteriorly truncated, and gradually decreasing in width towards the posterior end, which becomes rather narrow and is devoid of any processes or teeth. The tentacles, fifteen in number, are very short and provided with a pair of minute processes near their obtuse, round end; they communicate with fifteen long cylindrical tentacular vesicles or ampullæ. Each of the five longitudinal muscles is divided into two bands, and they do not give off any retractors. The calcareous ring (Pl. II. fig. 4, *d*) is built up of ten pieces, five radial and five interradial, which are intimately joined together so as to form a continuous whole. The interradial pieces, which are much smaller, send forwards one process, while the radial ones have two such, one of which is perforated for the nerves. Besides, the radial pieces terminate posteriorly in a large bifurcated process (Pl. XI. fig. 1, *a*), which supports the corresponding canal issuing from the water-vascular ring to the tentacles. Polian vesicle single, about 25 mm. long. The madreporic canal, single and dorsal, terminates in a madreporic tubercle. The reproductive organs are composed of two thin fascicles of long cylindrical sacs, one on each side of the medio-dorsal mesentery. The long common efferent duct opens externally slightly behind the tentacles, viz., between these and the madreporic tubercle. The cloaca communicates with two respiratory-trees, the right of which is generally longer, its cæcal end being often firmly attached to the gullet and the calcareous ring. The pseudhæmal vessels are not brought into connection with the respiratory-trees.