Zoology Part XXXIX: Report on the HOLOTHURIOIDEA. Second Part. By Hjalmar Théel. Bound in Volume 14,1886.

duct takes its beginning in the largest specimen at about 80 mm. behind the mouth. In all the specimens examined by me, excepting the largest one dredged at Station 298, the alimentary canal sends out anteriorly a large diverticulum, which, in an individual 160 mm. long, has a length of about 50 mm., and is situated about 50 mm. behind the water-vascular ring. It is held in a proper position by the mesentery to which it is attached. The cloacal dilatation of the intestine is considerable; the respiratory-trees are well developed, and both its branches run out from a common base; the left tree is shorter but more branched, its ramifications being in communication with the plexus of pseudhæmal vessels. The right tree attains almost the length of the body itself. At the base of these respiratory organs, a smaller bundle is often present. The longitudinal muscles are composed of two bands.

In the specimens obtained at Station 298 the calcareous deposits are totally absent, probably owing to some impurity in the alcohol. In the specimen from Station 299 some very fragmentary, irregular, three- or four-armed spicules are present, which commonly seem to bear an outwardly directed process, but I only found these deposits in the dorsal processes (Pl. X. fig. 1), and they were evidently in a state of solution. The integument is soft, thin, and pliable.

The specimen dredged at Station 299, measuring in length 235 mm. and in breadth about 70 mm., is much more macerated than those brought home from the other Station. I am by no means fully convinced of its identity with the latter specimens, but they present an obvious resemblance. Considering that the deposits are dissolved and the bodies themselves are very deformed and macerated, it is impossible to decide whether they are representatives of the same species or not. The individual from Station 299 has the Polian vesicles much shorter, only 30 mm. long, and the two thin bundles of reproductive organs have the tubes narrow and slender and up to four times (or more) dichotomously branched.

Having finished the above description founded on the specimens from Stations 298 and 299, I obtained the forms brought home from Station 300, in consequence of which some additions are necessary. These specimens, kept in purer alcohol, are less macerated, and their colour is dark violet, sometimes almost black; the middle part of the back commonly presents a lighter colour. The largest specimen measures in length slightly more than 300 mm., and its tentacles are nineteen. Though the calcareous ring is absent, the other deposits are not all spoiled. The general shape of the deposits of the perisome seems to be three-armed, with the ends of the arms slightly branched or pierced by a hole; the centre of each such deposit carries a strong vertical column, the flattened and dilated end of which is provided with long spines or processes (Pl. X. fig. 7). By reason of these closely placed spinous columns the surface of the perisome is rather rough. However, even in these specimens the greater part of the deposits of the body-wall is dissolved. Lately I have got four other specimens provided with twenty tentacles from

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