

specimens having been badly preserved. As both the ectodermal epithelium and muscles were almost entirely macerated away, so also all the endodermal parts formed a disintegrated mass in the radial chambers. The muscles of the septa were nowhere preserved, so that I could only form an idea of their course from the furrows on the surface of the supporting lamellæ. These were, however, not very distinct, as the muscles of the septa, like the muscles of all the other organs, are extremely weakly developed; as far as I could make out each septum bears longitudinal muscles on the one side, and transverse muscles on the other, as in other Actiniæ.

All the septa are furnished in the section below the œsophagus with reproductive organs which reach like long, broad, folded bands almost as far as the pedal disk, but the mesenteric filaments were macerated away and nowhere to be found.

Besides the twenty-eight perfect septa there are imperfect septa, which only reach as far as the middle of the oral disk, and do not bear reproductive organs. I did not determine the number of them by direct observation, as in order to do this I should have been obliged to dissect the entire animal, and I could not make up my mind to this, considering how insufficiently it was preserved. I estimate them at twenty-six, as in the majority of Actiniaria the aggregate number of the tentacles nearly corresponds to that of the septa.

Though the anatomical description here given is but deficient, I consider myself justified in regarding *Porponia elongata* as a form systematically interesting. The position of the tentacles in a double row, the presence of perfect reproductive septa (macrosepta) and imperfect sterile septa (microsepta) are characteristics which recall the Zoantheæ; the numbers of the tentacles and the septa likewise agree with those of this group, as they are neither multiples of the number six, as in the Hexactiniæ, nor of the number four, as in the Paractiniæ. On the other hand, having two œsophageal grooves, *Porponia elongata* comes closer to the Hexactiniæ, among which, as I have already specially observed (p. 30), it most resembles the Antheomorphidæ. I therefore consider it most likely that *Porponia elongata* is an intermediate form between the Hexactiniæ and the Zoantheæ.

*Porponia robusta* (Pl. I. fig. 10).

Body compressed, as high as broad, sessile; wall tough, the upper end prolonged into numerous scimitar-shaped processes, which support the outer walls of the long, thin-walled saccular tentacles.

*Habitat.*—Station 237. June 17, 1875. Lat. 34° 37' N., long. 140° 32' E. Depth, 1875 fathoms. One specimen.

*Dimensions.*—Height, 4 cm.; breadth of the oral disk, 4 cm.; breadth of the pedal disk, 3 cm.

The single specimen of *Porponia robusta* had unfortunately been preserved in chromic acid, and had therefore become so brittle that I must confine myself to a description of the external form of the body. The animal is shaped like a short,