

Anthozoa, the development of radial (mesenterial) folds which commences in the former being further advanced in the latter. In this case the ectodermal longitudinal musculature of *Corynactis* and the *Cerianthi* would be, as it were, heirlooms from the Scyphostomæ. Both genera would thus retain an ancestral character no longer to be found elsewhere among Anthozoa, with which would agree that both genera must on other grounds be placed near to the original ancestor of the group. Of all Hexactiniæ, the Corallimorphidæ are, next to the *Halcampæ*, the most primitive; the Cerianthidæ, again, must be derived from the extremely primitive Edwardsiæ.

Family 2, ANTHEOMORPHIDÆ, Hertwig.

Genus *Ilyanthopsis*, n. gen.

Antheomorphidæ with the tentacles in several rows; body-wall smooth; body goblet-shaped, broadening upwards from the small pedal disc to the broad oral disc.

*Ilyanthopsis longifilis*,\* n. sp. (Pl. II. fig. 2).

Tentacles very long, pointed, with an obvious terminal pore, ranged in four circlets, increasing in length from the centre outwards.

*Habitat*.—Reef of the Bermudas, June 1873. One specimen.

*Dimensions*.—Diameter of base, 4 cm., of oral disc, 7 cm.; height, 3·5 cm.

The single specimen, which was well preserved but strongly contracted, in its shape occupies a middle position between *Aiptasia* and *Anemonia*. The base is relatively small, the body not very high, but broadening out conically towards the mouth. The body-wall being raised in goblet shape over the edge of the oral disc, the animal possesses a "collar" in the sense of Angelo Andres, and consequently, owing to the absence of cinclides and acontia, must be reckoned near the Ilyanthidæ. From these it differs in the presence of a well-developed pedal disc, by which it undoubtedly attaches itself to rocks.

The thin body-wall is smooth, except for transverse wrinkles due to the strong contraction of the mesenteries. No sphincter is present. The circular muscle-lamella is, in all parts of the body-wall equally, pleated into muscular laminæ, which are low, and either not at all or only slightly arborescent.

The tentacles are very numerous, and are arranged in four rows, the oral disc being free from them in the immediate neighbourhood of the mouth. Since I counted but 160, not all the tentacles of the sixth order can as yet have been developed. The longest of them were some 4 cm. in length, and 0·5 cm. broad at the base; the slightly truncated tip possessed a small pore. In studying the ectodermal muscle-lamellæ, peculiarities presented themselves which suggested the longitudinal muscles on the outer surface of the body-wall in *Cerianthus*. The muscular pleats are generally