

The material which I was able to place at Dr. Erdmann's disposal was derived partly from the Bonn Museum, partly from the Triton expedition, but chiefly from the Challenger collection. For the descriptions of the Challenger Zoanthæ I give here short extracts from his Memoir,¹ for the accuracy of which I can vouch, as the whole investigation was carried out under my direction. I have achieved, what he omitted, in identifying as far as possible the forms obtained with species previously described, and, where that was impossible, have introduced new names, and have reduced the diagnoses of species to shorter and more precise terms.

Family 12, ZOANTHIDÆ.

Genus *Zoanthus*, Cuvier (*pro parte*).

Integument not incrustated; cœnenchyme stolonar, with an occasional tendency to lamellar extension; sphincter differentiated into upper and lower sections; mesenteries arranged on the microtype.

Zoanthus danæ (?), Le Conte (Pl. I. fig. 1).

Polyps with fleshy body-wall, the larger borne on a stalk-like extension, and arranged closely together on reticulately branching stolons; approximately fifty tentacles arranged in two cycles.

Habitat.—Bermuda Islands; shallow water.

Dimensions.—Of the individual polyps—height, 0.5–2.5 cm.; breadth, 0.3–0.5 cm.

This animal, which I refer with considerable reserve to *Zoanthus danæ*, is identical with the *Zoanthus* which I have already described. To that description I can add the following points, based on Erdmann's researches:—

1. The colony grows on a foundation of rock in such a manner that the upper ends of all the polyps lie in the same plane. As the foundation is irregular, the individual polyps must be of unequal lengths, a result of which is that those animals which correspond to hollows in the foundation are produced posteriorly into a kind of stalk, distinguished from the body proper by a constriction, and by the thinner consistence of the body-wall.

2. A peculiar attachment of the cuticle to the body-wall, and one perhaps more widely distributed among the Zoanthæ, is effected by mesogloal processes which perforate the epithelium and are inserted on the cuticle.

3. The colony investigated by Erdmann was sexually mature; ova and testicular follicles occurred in the same mesentery.

¹ Erdmann, Ueber einige neue Zoantheen. Ein Beitrag zur anatomischen und systematischen Kenntniss der Actinien, *Jenaische Zeitschr.*, Bd. xix. pp. 430–488, pls. ix. v.