The correlation, which exists in all Actiniaria between the œsophageal grooves and the directive septa, is also shown in the Zoantheæ, for there is only one œsophageal groove, whilst the other is wanting, in correspondence with the rudimentary nature of the directive septa to which it should belong. The tentacles, on the other hand, are equally developed and placed in two circles, the inner of which belongs to the intraseptal spaces, the outer to the interseptal spaces.

All the characters taken into account by former naturalists in the diagnosis of the Zoantheæ are of subordinate value when compared with the peculiar conditions just mentioned. The animals are united into colonies either by means of branched stolons or by means of a broad basal plate, but there are also solitary forms which are embedded with their rounded aboral ends in the sand like the Edwardsiæ. The entire surface of the wall is often permeated with foreign bodies, though in many specimens such encrustations are wanting completely. Finally, the canals, which make their way from the ectoderm into the wall, where they become branched and connected into plexuses, are confined to certain forms only.

In the division of the Zoantheæ I agree chiefly with Verrill, who divided the species forming colonies into four genera; *Mammilifera*, *Zoanthus*, *Palythoa*, and *Epizoanthus*. The former two are distinguished from the latter by the absence of sand encrustations. *Zoanthus* and *Epizoanthus* are distinguished from *Mammilifera* and *Palythoa* by the fact that in the former two the polyps project plainly above the common basis, whilst in the latter two they are united up to the free end by the basal cœnenchyma. I have restricted the family Zoanthidæ to those genera which form colonies, and have associated all those which are solitary under the name Sphenopidæ.

Family Zoanthidæ.

Zoantheæ forming colonies; the individuals of a colony connected with one another by endodermal canals, which run out from the gastric space at the lower end of each polyp.

Zoanthus, Cuvier, *pro parte*.

Zoanthus, Verrill.

Zoanthidæ without sand encrustations and with a slightly developed cœnenchyma consisting either of a plexus of stolons or of a thin plate; the single polyps projec to a considerable height above the cœnenchyma.

Zoanthus, sp. (?) (Pl. XIV. figs. 1–4 and 6).

Habitat.—Bermuda Islands.

Dimensions.—(Of the individual polyps): height, 0·1–1·3 cm.; breadth, 0·1–0·4 cm.