

erroneously consider these organs as peculiar to the Zoantheæ, and explain them to be gills, a view which is, however, quite unwarranted.

I did not find reproductive organs either in the three polyps minutely examined or in several others which I only opened longitudinally.

The cœnenchyma consists of the same tissue as the wall of the polyps, but the proportions of the component parts are altered. The branched fibres are more scanty and crossed irregularly in every direction, whilst the cells of connective substance are remarkably abundant, and many of them have assimilated black granules, and so become branched pigment cells. The ectodermal canals are more numerous than usual, and form a thick net-work; it is often difficult to distinguish them from the endodermal connective tubes, which run from one polyp to another, and which also may become branched into small vessels.

Epizoanthus, Gray.

Zoanthidæ, in which the outer layer of the body is encrusted with sand granules; cœnenchyma a thin lamella usually stretched over Gasteropod shells which have been abandoned by their owners and are inhabited by *Paguri*; polyps projecting considerably above the surface of the cœnenchyma.

Epizoanthus parasiticus (Pl. III. figs. 2, 9, 12; Pl. XIV. fig. 5).

Zoanthus parasiticus, Verrill, Memoirs Boston Soc., vol. i. p. 34.

The upper part of the wall of the polyps, which is a few millimetres broad, separated from the lower by a circular furrow, forming a shallow disk when contracted, and covered with forty radial ridges; tentacles seventy to eighty, filament-shaped, arranged in two rows. Colony parasitic upon a Gasteropod shell, the calcareous components of which have been absorbed and replaced by the cœnenchyma.

Habitat.—Station 235. June 4, 1875. Lat. 34° 7' N., long. 138° 0' E. Depth, 565 fathoms. Two specimens.

Dimensions.—Height of the individual polyps, 1.5–2.5 cm.; breadth, 1.4–1.7 cm.

Epizoanthus parasiticus, of which there were two specimens among the Challenger material, belongs to those Actiniaria which settle as parasites on shells inhabited by hermit crabs. As Verrill, who was the first to give a detailed account of *Epizoanthus*, observed, the Gasteropod shell is almost entirely dissolved, even the columella being completely replaced by the cœnenchyma of the parasite. The form of the shell, however, is still retained, and the hermit crab continues to live comfortably inside, undisturbed by the changes which his home has undergone. The snail shell can only be recognised externally by the wide opening and the point which projects as a stumpy knob.