

The reproductive organs form large masses attached to the inner surface of the mantle and projecting into the peribranchial cavity. These polycarps are larger than those of *Goodsiria placenta*, but are similar in other respects.

Several very large tailed larvæ were found in the peribranchial cavity of one of the Ascidiozooids examined.

The examination of further specimens of this form may possibly show that it ought to be regarded as a distinct species from *Goodsiria placenta*, but I am inclined to expect that intermediate forms will be found showing that both are members of a single variable species.

*Goodsiria pedunculata*, n. sp. (Pl. XLIV. figs. 1-3).

*The Colony* has the form of a rounded or pyriform mass supported on a peduncle. The upper end is wide and convex. The surface is uneven and not smooth. The colour is light grey.

The length is 4.5 cm., the breadth is nearly 3 cm., and the thickness is about 2.5 cm.

*The Ascidiozooids* are large and fairly numerous. They are distributed evenly over the surface of the colony. Their anterior ends show as rounded or elliptical areas of a slightly darker colour, usually from 2 mm. to 3 mm. in length. Each is provided with two apertures, which are prominent and conspicuous. The bodies of the Ascidiozooids are slightly elongated antero-posteriorly, but are not divided into regions.

*The Test* is firm and cartilaginous, and the outer layer is rather tougher than the rest. The internal part is white in sections, and is rather opaque. The matrix is apparently structureless, but test cells are abundant. There are no bladder cells. The test cells are not large; they are mostly of rounded and fusiform shapes, and are generally pigmented, of a yellowish-brown colour. Vessels are not numerous in the test.

*The Mantle* is moderately strong, and the musculature is well developed. The muscle bands run in all directions.

*The Branchial Sac* is large and rather delicate. No folds are present, but the internal longitudinal bars are well developed. They are regularly arranged and have no papillæ. The transverse vessels are moderately wide, and are all of about the same size. The stigmata are elliptical in shape and are of fair size. They are arranged with great regularity. The meshes are slightly elongated transversely, and each contains three stigmata.

*The Endostyle* is large and conspicuous. Its course is straight.

*The Dorsal Lamina* is a plain membrane.

*The Tentacles* are numerous, and are all of the same size.

*The Alimentary Canal* lies alongside the branchial sac. The stomach is globular and has its wall folded. The intestine is rather narrow.