

The Ascidiozooids are apparently arranged quite irregularly. There are about fifty in a head of average size. Their anterior ends form light yellow areas rather less than 1 mm. in diameter on the upper surface of the head. The Ascidiozoid is large, and has a curious shape (Pl. XVI. fig. 9). The branchial aperture is quite at the ventral edge of the anterior end, and is clearly six-lobed. The atrial siphon is larger than the branchial (Pl. XVI. fig. 11, *at.*), is not quite at the dorsal edge, and is not lobed. The endostyle is long and nearly straight, and forms a conspicuous border to the ventral edge of the branchial sac. This ventral edge is the longest part of the sac; the dorsal edge is considerably shorter. The visceral part of the body (abdomen) is in most cases rather larger than the branchial region, and is narrowed anteriorly and posteriorly (Pl. XVI. figs. 9, 11). The vascular appendage (Pl. XVI. fig. 9, *v.ap.*) is usually at least as long as the rest of the Ascidiozoid. It is conspicuous and of moderate width, and runs almost directly backwards towards the stalk. It ends in an ovate bulb, which occupied about one-fourth of the length of the appendage.

The cells of the test are extremely numerous. Most of them are fusiform, with very long fibres projecting from their narrow ends. The nuclei are large and take up stain readily. Small bladder cells are present in some parts of the test.

The mantle is strong on the branchial part of the body. There are a small number of strong muscle bands which run transversely. They are regularly arranged and usually equidistant (Pl. XVI. fig. 12). The sphincters are strong, especially that around the branchial siphon. Over the viscera the mantle is thin and almost destitute of musculature. Here and there, especially over the stomach, patches of opaque white pigment cells occur, and smaller groups may be sometimes seen upon the branchial siphon. The vascular appendage has a few longitudinally running muscle bands (Pl. XVI. fig. 10), which are continued down from the mantle.

The branchial sac is very narrow (Pl. XVI. fig. 11). Its posterior end is pointed, and lies at the ventral edge of the body. The larger alternate transverse vessels have a few muscle fibres. The stigmata are long and narrow, and are very regularly arranged (Pl. XVI. fig. 13, *sg.*).

The tentacles are long and thin, but not very large. They are all of much the same size (Pl. XVI. fig. 14, *tn.*). The dorsal languets are very large. They are of a long triangular form, and are flattened antero-posteriorly; their edges are ciliated (Pl. XVI. fig. 14, *l.*). Their bases are connected by a strong band of muscle fibres (Pl. XVI. fig. 14, *d. l.*), which occupies the median dorsal line of the branchial sac.

The alimentary canal is, relatively to the size of the branchial sac, very large (Pl. XVI. fig. 11). The œsophagus begins at the dorsal edge of the posterior end of the sac, and runs straight backwards; it is very short. The stomach is large and ovate in shape, with the long axis directed antero-posteriorly. The stomach forms the greater part of the ventral edge of the visceral mass (Pl. XVI. fig. 11, *st.*). It is smooth externally,