

The Ascidiozooids are of a pale yellow colour, and are usually quite opaque. The yellowish tint in the colouring of the colony is due to their presence. The brownish tint in some of the colonies is, on the other hand, caused by the darker colour of the test in these cases, the bodies of the Ascidiozooids showing through as lighter coloured patches on the dark brownish-grey ground.

The small cells in the test vary considerably both in size and shape (Pl. XXIX. fig. 8, *t.c.*). In some places they are aggregated to form small clumps which look like the terminal knobs of vessels; they are, however, merely groups of closely-placed test cells. Many of the cells have granular contents, but no regular pigment corpuscles were noticed except in the case of the brown coloured specimens, where they are abundant. These pigment cells are circular in form and of small size.

The musculature of the mantle is rather regular. The lobes at the branchial aperture are six in number, in some cases they are very well marked (Pl. XXIX. figs. 9, 10, *br.*). The atrial aperture is provided with a very long narrow atrial languet (Pl. XXIX. figs. 9, 10, *at.l.*), which is directed anteriorly and towards the branchial aperture.

The branchial sac in all the Ascidiozooids was considerably corrugated, but whether this condition is natural, or the result of contraction on being put into alcohol, I am unable to say. There are a good many rows of rather narrow stigmata. The ciliated cells are distinct and have pointed free ends. The endostyle is inconspicuous; its course is undulating.

The alimentary canal is long and narrow (Pl. XXIX. fig. 9). The œsophagus runs straight backwards to open into the rather cylindrical stomach, which lies with its long axis directed antero-posteriorly (Pl. XXIX. fig. 9, *st.*). There are about fourteen well-marked longitudinal folds, which are seen in transverse sections of the abdomen to extend about half-way into the cavity (Pl. XXIX. fig. 12). The intestine extends for a considerable distance behind the stomach, and then turns abruptly to the dorsal edge and then anteriorly, forming a narrow loop. The tube usually becomes slightly enlarged in its most posteriorly placed part before turning forwards (see Pl. XXIX. fig. 9, *i.*). The rectum is long and rather narrow, and in its upper part it is very narrow. It lies alongside the intestine, stomach, and œsophagus, and then courses along the dorsal edge of the branchial sac. It forms the dorsal edge of the thorax and abdomen in their entire length (Pl. XXIX. fig. 9, *r.*).

The post-abdomen is very large, it is usually about twice as long as the thorax and abdomen together, and is nearly as wide as the thorax (Pl. XXIX. fig. 9, *p.abd.*). It is very opaque except along the middle, where there is a narrow clear line formed by the lumen of the double septum. This cavity is clearly visible in transverse sections of the post-abdomen (see Pl. XXIX. fig. 11). There is generally a slight constriction separating the abdomen from the post-abdomen.

In external appearance this species shows some resemblance to *Aplidium fuegiense*,