

middle of the colony only the upper ends of the appendages belonging to the Ascidiozooids in that section are seen. The remainder of these appendages would appear in sections further down the colony in the direction of the stalk.

The test, considering its soft and unmodified condition, is very untransparent. This is possibly due to the presence of the numerous opaque vascular appendages which run through it. Figure 4 in Plate XVI. shows the number present in a small piece of test from the middle of a section. The cells in the test are extremely abundant. The matrix, though generally homogeneous, is in some places distinctly fibrillated. Small spherical bladder cells are present in some places.

The mantle musculature is very like that of *Colella pedunculata*. The branchial sphincter is fairly well developed. The atrial siphon is large and projecting (Pl. XVI. fig. 5, *at.*).

The branchial sac is rather irregular in shape. Its ventral border is always much contorted on account of the remarkably irregular course of the endostyle (Pl. XVI. fig. 5, *en.*). Its anterior and posterior ends are wide, and usually almost straight and parallel to one another. The stigmata are very long, as in *Colella pedunculata*. The stigmatic cells are prominent and richly ciliated. The tentacles are very large, and are so closely placed that their bases touch (Pl. XVI. fig. 7, *tn.*). The shorter ones are scarcely half the length of the larger ones.

The alimentary canal is of fair size; it is slightly variable in its shape and course. The œsophagus is always long and narrow (Pl. XVI. fig. 5). It commences at the dorsal end of the posterior edge of the branchial sac, and runs directly or almost directly backwards (posteriorly) to open into the small more or less globular stomach (Pl. XVI. figs. 5, 6, *st.*). The stomach usually lies about half way between the posterior end of the branchial sac and the posterior end of the Ascidiozoid. It has no markings externally, and is quite opaque. The intestine commences as a narrow tube like the œsophagus, and after a very short course backwards usually opens suddenly into a considerably wider region with thick walls (Pl. XVI. fig. 6, *i.*). This narrows slightly as it runs backwards to form the most posteriorly placed part of the intestine, which turns dorsally and then anteriorly to become the rectum. The rectum is long and very wide (Pl. XVI. figs. 5, 6). It runs anteriorly past the stomach and œsophagus and along the dorsal edge of the branchial sac, to terminate at the base of the large atrial siphon. It is usually filled with fœcal matter in the form of spherical dark coloured balls (Pl. XVI. fig. 5), which are moderately firm and strong. Figure 6 shows the alimentary canal of a younger Ascidiozoid than the one represented in figure 5.

The reproductive organs are placed alongside the loop of the intestine, and a few ova and spermatic vesicles may frequently be seen (as in Pl. XVI. fig. 5), projecting beyond the rectum dorsally, opposite to the stomach.