

upper one-fourth or so of the head is free from Ascidiozooids, being formed of test alone, and having a slightly decayed appearance. The peduncle of this specimen is regular in shape, and differs considerably from those of the other two specimens. It is narrow at the top where it joins the head. It then swells rapidly to (7 mm.) about twice its original thickness, and then tapers downwards, somewhat like a carrot, to a narrow base by which it is attached. This peduncle has a very slight yellowish tinge, and is marked by delicate transverse wrinkles.

In the other two specimens (Pl. XIV. fig. 1) the head is more compressed (*i.e.*, the thickness is not so great as the breadth), and the Ascidiozooids seem quite irregularly scattered over the surface. They are in all cases more numerous near the base of the head than further up. The peduncle is equally thick all the way down, and has no yellow tinge.

The Ascidiozooids are clearly visible in all the specimens; they show as opaque whitish-grey areas about 1 mm. in diameter. In a transverse section across the middle of the colony the Ascidiozooids are seen to occupy a zone a little over 2 mm. in breadth, surrounding a central mass of test about 3 or 4 mm. in breadth.

The branchial region of the body is nearly of the same size as the visceral (see Pl. XIV. fig. 5), and they are connected by a narrow neck formed of the œsophagus ( $\alpha$ ), the rectum (*i.*), and the vas deferens (*v.d.*) covered by a layer of mantle. The branchial aperture (*br.*) is placed nearly in the centre of the wide anterior end, while the atrial siphon (*at.*) projects from the dorsal side. There are apparently no vascular appendages.

The test is firmer even in the centre of the colony than is usual in allied species. It is very transparent, which is no doubt partly due to the absence of vascular appendages from the Ascidiozooids. The test cells are very abundant, and they are of fairly large size. Bladder cells are rare, and seem to be mainly if not solely in the superficial layer of the test.

The mantle musculature is like that of *Colella pedunculata*. The sphincters are fairly strong, and there is a well-developed branchial siphon (Pl. XIV. fig. 5, *br.*). Longitudinal muscle bands radiate from the base of both apertures, and form an irregular network over the sides of the branchial part of the body (see Pl. XIV. figs. 5, 4).

The branchial sac is nearly as wide as it is long (Pl. XIV. fig. 5). The stigmata are large, a circumstance which gives the sac a delicate appearance. The narrow pointed ends of the stigmata (Pl. XIV. fig. 3) form a constant characteristic. The ventral border of the branchial sac is very convex, and this causes the endostyle to bend almost in a C-shaped curve (Pl. XIV. fig. 5, *en.*). The course of the endostyle is slightly undulating. The languets are shorter and stouter than usual. The tentacles are not large, and they are peculiarly closely placed, the line of their insertion forming a very small circle. The prebranchial zone is large, and is particularly wide at the ventral edge, where the anterior extremity of the endostyle is very distant from the base of the ventral tentacles.