

The branchial siphon is small and is placed at the anterior end of the body. The atrial siphon is rather on the dorsal edge. It is large (Pl. XX. fig. 7, *at.*), but is shorter and rounder than that of *Cystodytes draschii*.

The test, although its general structure is the same as in the last species, is considerably more vacuolated (see Pl. XX. figs. 5, 6, 9, 12). This is due to the very great abundance of the bladder cells. The superficial layer of the colony has none (Pl. XX. fig. 6), but all the rest of the test is occupied by them to such an extent that the matrix is almost entirely absent (Pl. XX. fig. 9). All that is left is the system of membranes and delicate trabeculæ which bound the large polygonal bladder cells. In these trabeculæ lie the small fusiform test cells (Pl. XX. fig. 6, *t.c.*), and along their edges are placed the parietal nuclei of the large bladder cells. Under a low power (50 diameters) a section of the test shows generally several adjacent layers of the polygonal cells intersecting one another so as to form an irregular meshwork (Pl. XX. fig. 9), while the whole is thickly peppered over with minute dots, the nuclei of the cells. A higher magnification (Pl. XX. fig. 6) shows the individual bladder cells more clearly, and allows their nuclei to be distinguished from those of the unmodified test cells in the reduced matrix. This whole structure is singularly like that of the test of *Colella pedunculata* (see p. 78), as may be seen by comparing Plate XX. figure 6 with Plate V. figures 14, 15. It is clearly an extreme form of the modification commenced in the test of *Cystodytes draschii*, and seen, though to a much less extent, in one part of figure 2 on Plate XIX. Groups of rounded cells with large nuclei are present in the neighbourhood of the Ascidiozooids (Pl. XX. fig. 5).

The calcareous capsule enclosing the Ascidiozoid, as in the case of the last species, really belongs to the neighbouring part of the colonial test (Pl. XX. fig. 5). It consists of a number of large discoid calcareous plates which lie vertically and are somewhat irregular in distribution, being in some places more numerous than they are in others. These disks are rather larger than in the last species, being on an average 0.5 mm. in diameter. They are also very much thicker, as a comparison of Plate XX. figures 4, *B*, and 5, and Plate XIX. figure 3, showing the edges of both, will show. Otherwise the shape in the two species is the same. In surface view, however, the spicule in the present species seems, doubtless on account of its greater thickness, much stronger and more opaque (Pl. XX. fig. 4, *A*). The minute markings on the spicule and the method of its formation seem to be much the same in both cases.

The superficial layer of the test seems not to adhere¹ to the anterior portions of the Ascidiozooids, and can readily be torn off from the colony. It then, when slightly magnified, presents the appearance shown in Plate XX. figure 10. The branchial apertures (*br.*) are distinct rounded apertures. They are usually not quite circular, but have a

¹ It must be remembered that the specimens I examined had all been preserved in alcohol. Doubtless when living the mantle and test adhere throughout.