

Ascidia is the largest and best known genus of the Ascidiidæ, and may be considered as the typical form. In shape it is usually irregularly ovate or elongated antero-posteriorly, and it is attached by the posterior end or part of the left side of the body. It is very rarely¹ covered with incrusting sand and other foreign bodies. Usually the branchial aperture is surrounded by eight lobes and the atrial by six, but the former may have seven or nine, and the latter five or seven.

The test is usually thick, but soft and flexible, and more or less transparent. In a typical species (e.g., *Ascidia mentula*, O. F. Müller) it is plentifully supplied with blood-vessels, and the terminal knobs in the outer layers are surrounded by quantities of large ovate bladder cells (fig. 18, *a*).



FIG. 18.—Transverse section through the test of *Ascidia*, showing the matrix in which lie large bladder cells (*c*) scattered in the inner layers, and smaller bladder cells (*a*) near the surface (the left side of the figure), blood-vessels (*b*) with terminal knobs, and pigment cells (*d*)—magnified about 40 times.

In some species (e.g., *Ascidia nigra*, Savigny) many of the cells become pigmented, thus colouring the whole test and rendering it opaque. In a few cases the test is very thin and membranous, and appears to have no vessels.

The mantle is never very thick. It is usually fairly muscular on the right side where it lies over the branchial sac, but the muscle bands are not arranged according to a definite system, as they are in many of the Cynthiidæ. There are a number of bundles which radiate from the bases of the siphons, and some others which cross the anterior and dorsal region lying between the branchial and atrial apertures. These usually form longitudinally running sets of bundles, which, however, branch and anastomose so as to make an irregular network. They are crossed at right angles, and obliquely, by a series of more or less transversely running bands, which terminate at the dorsal and ventral edges, or very slightly beyond them, as the left side of the body over the viscera is almost or entirely destitute of muscular fibres. The siphons are very rarely prominent,² and the sphincters are usually only of moderate strength.

¹ *Ascidia involuta*, Heller, is one of the exceptions.

² *Ascidia longitubis*, Traustedt, has both siphons enormously elongated, and *Ascidia pyriformis*, Herdman (Pl. xxxiv. fig. 8), shows the same condition in a less marked degree.