

There is considerable variation in shape, and relative strength of sculpture and hinge. Short, inflated shells generally have strong growth lines, coarse radial sculpture and a heavy hinge, while compressed, more elongate specimens are delicately sculptured, have thinner shells and a weaker hinge. The latter type are usually found under stones embedded in sand while the crasser specimens generally occur on the undersides of stones encrusted with sponges, tunicates, etc. Shells intermediate between these extremes are also commonly encountered. The shell (Fig. 1) reaches about 7mm in length and 5mm in height. It is elongately oval, the anterior end longer, and moderately inflated. The prodissoconch is minute and the sculpture of the adult shell consists of regular close radial riblets and concentric growth lines. There is a large triangular internal ligament below the beaks. The right valve has two strong cardinals, and the left valve has two dorsal, narrow lamellae, the posterior one elevated.

*External appearance and locomotion:* The animal (Figs. 1, 2), when fully extended, has no siphons and the mantle projects only slightly. There are small, blunt, hollow papillae (Fig. 1a) on the edge of the mantle which is extremely sensitive and rarely extended. The foot is large, flattened laterally and very mobile, broadening somewhat at the tip when crawling. The sole (s.) is narrow and there is a definite heel. Movement (Fig. 2, a-d) is achieved by the animal extending the foot, drawing the shell, which lies on its side, forward, and then re-extending the foot. The shell is flipped over from time to time during locomotion.

Normally it is attached by a byssus of one to a dozen or so threads emerging from the mid-ventral side of the shell which is slightly indented in some older shells.

*The mantle cavity and ciliary currents* (Figs. 3-5): There are two demibranchs present. The outer (o.d.) is much reduced and consists of only one lamella which is reflected posteriorly and bent inwards at its dorsal margin. The inner (i.d.) is larger, and has fully developed ascending and descending lamellae. The outer demibranch is weakly fused to the visceral mass at its dorsal edge but not to the mantle while the inner is fused to the visceral mass along its dorsal side and along the anterior half of the ascending lamella. There are two pallial openings, a large antero-ventral opening (inhalent-pedal aperture) and a moderately large exhalent aperture (e.a.) posteriorly.

Ciliation of the inner demibranch is normal, there being a well-formed food groove along the ventral edge with large guarding cilia on both sides. The frontal cilia of the reflected outer gill pass particles over the bent portion and so towards a narrow groove along the axis of the gill where some pass upwards to a ciliated track running anteriorly along the dorsal edge of the gill, but most sweep over the groove on to the inner demibranch. The labial palps (l.p.) are moderately large, mobile, and ciliation appears to be normal. The inner sides of the palps are ridged and cilia sweep food particles orally over these while waste is passed along the grooves between the ridges to the lower edges of the palps from where it is dropped on to the mantle. The foot (f.) and visceral mass are richly ciliated. Particles are carried by cilia towards the ventral anterior corner of the visceral mass, and posteriorly along the foot to be rejected at the heel. The narrow sole also has a backwardly directed current. There is a powerful ciliated tract just inside the mantle edge (m.e.), the very long cilia of which can easily be seen under the low power of a binocular microscope. Particles are passed posteriorly to a point just anterior to the end of the pedal opening where a ciliated rejection tract passes over the mantle edge. At this point an anteriorly moving current from the posterior end of the mantle edge also terminates. Above the rejection tract on the mantle edge, movement of cilia on the mantle is towards the region of the palps. The whole of the anterior portion of the mantle edge has outwardly beating cilia which reject heavy particles carried in by the inhalent water current. The adductor muscles (a.a., p.a.) are large, the anterior being slightly larger than the posterior. Some features of the gross anatomy are shown in Fig. 4.