

admitted in the systematic portion of this Report. These two groups, although agreeing in their essential characters, differ in certain points to which allusion will afterwards be made.

*The Head*, in all species of *Cavolinia*, resembles that of *Clio* (*s. str.*). Both tentacles are well developed, the right especially attaining large dimensions.

*The Foot* is of different form in the two groups. In group A (*Cavolinia trispinosa* and *Cavolinia quadridentata*) the fins are like those of *Clio* (*s. str.*), as also the posterior lobe of the foot, which is long.

In group B (typical *Cavoliniæ*) the fins are not so narrow dorso-ventrally, and they form a muscular surface, almost undivided, with the posterior lobe of the foot. This latter is very short and almost as broad as the united fins, from which it is scarcely separated.

*The Mantle* in *Cavolinia* has a form quite peculiar to the genus, which gives it its most striking character, and is reflected in the disposition of the shell.

The mantle-opening is narrow dorso-ventrally; morphologically indeed it extends as far as the posterior extremity of the lateral slits of the shell, for it is up to this point that the opening of the latter extends. The margins of the mantle, however, are united together by a narrow transverse membrane, as far as in front of the closing apparatus of the shell. These margins are prolonged beyond this united membrane, and may extend outwards by the lateral slits in the shell, just as the separate margins extend through the anterior aperture of the shell, in such a way as to cover during the life of the animal almost the whole external surface of the shell (in the typical *Cavoliniæ*, *e.g.*, *Cavolinia tridentata*).

Besides this in the *Cavoliniæ*, in a restricted sense (that is, excluding *Cavolinia trispinosa* and *Cavolinia quadridentata*), there arises between the margins of the mantle thus prolonged beyond the uniting membrane, on either side posteriorly, a very extensile appendage, which may be double or triple according to the species and according to the state of development, and may float out behind. These appendages possibly correspond to the two symmetrical appendages on the margins of the mantle of *Cuvierina*.

*Cavolinia trispinosa* and *Cavolinia quadridentata*, which do not possess these symmetrical appendages, are provided on the left side with a lateral lobe (balancer) like that of *Clio*.

The pallial gland, symmetrical as in all the Cavoliniidæ, presents transverse opaque and transparent bands of unlike histological nature. The columellar muscle, which is rather broad, is situated dorsally as in all the Cavoliniidæ, and only directed ventrally at the anterior portion where it bifurcates, passing on either side of the œsophagus to be distributed to the fins and posterior lobe of the foot. This muscle, however, is not really symmetrical, that is to say, situated exactly in the median line; it is oblique, and this is especially visible in *Cavolinia longirostris* (Pl. III. fig. 2), where the insertion of the