

As to "*Cleodora trifilis*," it is difficult to determine to what adult form this young stage should be referred. But the absence of any well-marked constriction separating the embryonic shell, and the presence of three lateral appendages on each side of the mantle, show clearly that we have here to do with a *Cavolinia* and not with a *Clio* (*Cleodora*). But according to Troschel the posterior portion of the shell is not curved, while all the species of *Cavolinia* (except the group *Cavolinia trispinosa* and *Cavolinia quadridentata*, where the embryonic shell is markedly separate) exhibit a dorsal curvature of the initial portion. The position of "*Cleodora trifilis*" must therefore remain uncertain.

Family III. CYMBULIIDÆ.

1841. *Cymbulidæ*, Cantraine, Malacologie méditerranéenne et littorale, Mém. Acad. Sci. Bruxelles, t. xiii. p. 33.

Hyalæidæ, pars, Auctorum.

1885. *Alata*, Wagner, Die Wirbellosen des weissen Meeres, Bd. i. p. 119.

Characters.—"Shell" straight, bilaterally symmetrical, so-called cartilaginous, quite enveloped in the mantle. The animal cannot completely retire within it. The animal has a ventral pallial cavity, and the fins form a broad disc, on the dorsal margin of which the cephalic portion is laid back.

Description.—The "shell" of the adult Cymbuliidæ is considerably elongated in a dorso-ventral direction. It is somewhat hollowed out in the form of a boot or slipper, and is more or less broadly open ventrally. It is not homologous with the calcareous shell of other Thecosomata. In the Cymbuliidæ the homologue of the latter falls off at the close of the larval life. As to the cartilaginous "deutoconch" or "pseudoconch," it is the result of thickening of the integument. Nor is it the only illustration of such a structure among the Thecosomata, for in *Cavolinia tridentata*, on the anterior portion of the dorsal lip of the shell, there is a small covering portion with the same structure as the "shell" of the Cymbuliidæ, and similarly produced by the mantle, the prolongations of which may cover a considerable portion of the shell.

The deutoconch of the Cymbuliidæ, which is only covered by a delicate epithelial layer, is very readily lost,¹ as the result of which the members of this family have often been described as naked.

The animal has its visceral portion relatively little developed, and the foot, modified as a fin, greatly predominates. The cephalic portion is distinct; it extends beyond the dorsal margin of the fin, and is reflected on the anterior portion of the latter, forming a sort of proboscis, more or less elongated, sometimes remaining free (*Gleba* and *Cymbuliopsis*) or fixed to the surface of the fin. The lips do not consist as in the typical Thecosomata (Cavoliniidæ) of two dorso-ventral folds, united dorsally above the mouth, and continued on divergently to the ventral margin of the fins without re-uniting

¹ By "*Cymbulia*" *ovata*, Quoy and Gaimard, *Gleba cordata*, Forskål, &c.