

of the large specimens, which, however, it is bound to do, if in the latter the contracted portion is absorbed and the posterior portion alone left. This residue ought obviously to be identical and superposable in individuals of any size whatever.

The small-sized specimens, like the large, are individuals which will not increase further, which have attained their limit of growth, as is otherwise indicated by the complete development of the reproductive system. The smaller size of the shell depends on its surface being developed along a curve with smaller radius than in the large-sized individuals.

On the other hand, there are several forms of Cavoliniidæ, to which distinct specific titles are given, notably those which Boas calls "Hyales plates," where the union of the two lips of the shell by the so-called "appareil de fermeture" has not been developed. All these forms, as we shall immediately show, are individuals which have not yet attained sexual maturity, and belong to species already known, as Cantraine first suspected.

But this condition of immaturity, associated as it undoubtedly is with reduced development of the reproductive organs,<sup>1</sup> may be prolonged to a very late stage, and the shell may be very large before the formation of the "appareil de fermeture." This can be easily demonstrated by examining a large number of specimens, as for instance of *Cavolinia tridentata* at Naples. In this form, to which our attention was first directed by Dr. Paul Schiemenz, one finds, even at the same stage of development, considerable difference in size.

It is certain that there are notable differences in the size of adult specimens (with completely developed reproductive organs, and with perfected closing apparatus); and the theory of the partial absorption of the shell must be dismissed.

But as I have already pointed out, those young stages which we have discussed have been regarded as distinct species, and have been referred either to the genus *Cavolinia* (*Hyalæa*) or to the genus *Clio* (*Cleodora*), or to a special genus, *Pleuropus*.

And besides these entirely superfluous terms, we also find for the forms which properly belong to this genus a profuse superabundance of specific titles, just as in the cases of *Clio* and the Limacinidæ.

As these Thecosomata are pelagic animals with a very wide geographical distribution, there is no inconsiderable exhibition of variation in the form of the shell. Thus have arisen numerous variations, distinguished by very slight divergences. But on the basis of minimal distinctions, conchologists have not hesitated to establish a large number of "new" species.

If we abstract the titles which ought to be referred to other genera altogether<sup>2</sup>

<sup>1</sup> See Gegenbaur (*Hyalæa complanata*), Untersuchungen über Pteropoden und Heteropoden, pl. i. fig. 1; Souleyet (*Hyalæa lævigata*), Voyage de la Bonite, Zoologie, pl. v. fig. 14; Huxley (*Cleodora curvata*), On the Morphology of the Cephalous Mollusca, *Phil. Trans.*, 1853, pl. iv. figs. 4, 5.

<sup>2</sup> Also Nudibranchs, designated *Cavolina* (Bruguière).