

I have scarcely been able to establish any noteworthy differences either in the principal parts of the circulatory and excretory apparatus, or in the organs of generation. As in *Limacina*, there are at the end of the hermaphrodite duct a large muciparous gland, an albuminiparous gland, and a receptaculum seminis (Pl. I. fig. 11).

*Nervous System.*—The cerebral and pedal ganglia are disposed as in the case of *Limacina* and all Thecosomata; that is to say, the former, united by a long cerebral commissure, give origin to the nerves of the head and tentacles, and the latter to the nerves of the fins and posterior lobe of the foot.

But that which distinguishes the central nervous system of *Peracelis* from that of *Limacina* is the arrangement of the visceral commissure. Instead of the two asymmetrical ganglia we have here three ganglia, the two lateral of which are symmetrical, and a little smaller than the central one (Pl. I. fig. 12, *c, d, e*).

This disposition is identical with that which I have already indicated as occurring in *Cymbulia*,<sup>1</sup> and which, as will appear in the sequel, is characteristic of the whole family Cymbuliidæ.

In an animal so small as *Peracelis* it is very difficult to distinguish clearly the nerves issuing from the ganglia. I have seen, nevertheless, the nerve (*1*) proceeding from the right visceral ganglion, and a larger (genital) nerve (*2*) proceeding from the median ganglion, comparable with the corresponding nerves in *Cymbulia*. Further, I cannot doubt that the visceral nerves in *Peracelis* have a disposition identical with that found in all the Cymbuliidæ; that is to say, each lateral ganglion gives off a pallial nerve, of which I have made out that on the right, and the large median ganglion gives off from its right side a slender visceral nerve in addition to the large genital one.

The buccal or stomato-gastric ganglia are similar in form and arrangement to the corresponding parts in *Limacina*.

## Family II. CAVOLINIIDÆ.

These are the typical Thecosomata, the forms which have been most frequently studied, and which are consequently the best known. Their visceral anatomy being tolerably well known, there are certain points over which I may pass rapidly.

It has already been shown<sup>2</sup> that this family contains three genera, namely, *Clio*, *Cuvierina*, and *Cavolinia*, and furthermore, that the first of these includes divisions of subgeneric value, *Creseis*, *Hyalocylix*, and *Styliola*, which differ from each other in certain points of their organisation. We shall examine the three genera of this family in succession, and during the discussion of the genus *Clio* we shall have occasion to demonstrate some characters which distinguish its different sections.

<sup>1</sup> Recherches sur le système nerveux des Ptéropodes, *Arch. de Biol.*, t. vii. p. 117, pl. iv. fig. 12.

<sup>2</sup> Zool. Chall. Exp., part lxxv. p. 41.