

In their entire organisation (existence of a pallial cavity; number of tentacles; position of the penis, fins, cerebral ganglia, &c.) they agree with the Thecosomata, as we shall see in our anatomical Report. On the other hand, their special characters make it convenient to erect for them a special family, which appears to be a far preferable course to uniting them, as Woodward<sup>1</sup> has done, with the Cavoliniidæ, in which he has also included the Gymnosomatous *Halopsyche*.

As to the other Thecosomata, they form a more uniform group, within which one may pass from one form to another without remarking any very considerable modification. It is true, however, that in this group some forms differ from the majority in having the shell twisted into a spiral, as also in the position of the anus and of the pallial cavity. The existence of these last two differences in forms otherwise closely allied will be explained in the anatomical part of the Report. The differences just mentioned make it possible to separate the forms in question, and to erect them into the family Limacinidæ, which, however, Souleyet unites with the typical Thecosomata.<sup>2</sup>

As to all the rest, they form a most natural family—Cavoliniidæ, from which there is no reason to separate the genus *Cuvierina*, under the name of Tripteridæ, as Gray<sup>3</sup> and the brothers Adams<sup>4</sup> have done. The last mentioned genus in fact differs but very slightly from certain types of Cavoliniidæ, such as the species of *Clio* of the section *Creseis*, from which indeed they are distinguishable only by the presence of a partition towards the middle of the shell, and by the constriction behind the aperture.

Among the Thecosomatous Pteropods, we thus recognise only three families:—

1. Limacinidæ, including the genera *Limacina* and *Peracelis*.
2. Cavoliniidæ, „ „ *Clio*, *Cuvierina*, and *Cavolinia*.
3. Cymbuliidæ, „ „ *Cymbulia*, *Cymbulopsis*, and *Gleba*.

#### Family I. LIMACINIDÆ.

1847. *Limacinidæ*, Gray, A List of the Genera of Recent Mollusca, their synonyms and types, Proc. Zool. Soc. Lond., p. 203.

1859. *Spirialidæ*, Chenu, Manuel de Conchyliologie, t. i. p. 113.

*Characters*.—Shell external, twisted into a left-handed spiral, with a spiral operculum. Animal with a dorsal pallial cavity, and a ventral columellar muscle; anus situated on the right side.

*Description*.—The shell, which is always delicate as in other pelagic animals, is of small size, and is translucent with slight colouring. The spire and the operculum differ considerably in form in the various species.

<sup>1</sup> A Manual of the Mollusca, p. 204, 1856.

<sup>2</sup> Histoire naturelle des Mollusques Ptéropodes, p. 32.

<sup>3</sup> Catalogue of the Mollusca in the Collection of the British Museum, pt. ii., Pteropoda, p. 23.

<sup>4</sup> The Genera of Recent Mollusca, vol. i. p. 54.