

The operculum is very delicate, glassy, and transparent. It is fixed by a portion of its surface to the posterior face of the ventral lobe of the foot.

The animal is twisted like the shell which it completely fills, and into which it may be completely retracted. The margin of the mantle bears, on the right-hand side, and somewhat ventrally, a long extensile appendage. The posterior lobe of the foot, which bears the operculum and is topographically ventral, is hollowed out on the middle of its free margin. The fins do not exhibit, towards their distal extremity, the area without muscular fibres which is usually to be observed in the genus *Clio*.¹

As regards the systematic relations of the genera and species, the family Limacinidæ is still but imperfectly understood. This is in part doubtless due to the small size of the animals which form the family. They have hitherto been but rarely studied, and even in special works on Pteropods are often slurred over, as for instance in the memoirs of Quoy and Gaimard and of Rang. In the same way Troschel and Gegenbaur in their studies on the Pteropods of the Mediterranean have not discussed a single member of this family, and we may also note that Pfeffer, who has published an important description of the Thecosomata in the Hamburg Museum, has quite overlooked the Limacinidæ.

The investigation of the numerous specimens of this family which were collected on the Challenger Expedition has enabled me to make an almost complete study of the entire family. The results of my investigation I therefore proceed to submit.

If one considers the living species alone, one finds in the literature of the subject that there are no less than thirty-six different specific names applied to forms referred to this family. In this number I do not include, be it understood, the manuscript species, or those which have been simply recorded without description or figure—*Limacina carinata*, Jeffreys,² *Spirialis diversa*, Monterosato,³ *Spirialis contorta*, Monterosato.⁴ These I evidently could not take into account.

Since the work of Souleyet,⁵ Boas is the only naturalist who has attempted to make a synthetic study of this group.⁶

From the researches of these authors it may be concluded that there are now seven species adequately enough known by their shell, operculum, and anatomy to leave no doubt as their systematic position. These species are the following, and in citing them I shall retain the original generic titles, omitting for the present the discussion of their proper generic distribution.

¹ Boas considers this space as corresponding to the hollow which separates the small tentacle-like lobe of the fin of some species of *Limacina* and *Clio* of the subgenus *Oressis*, from the margin of this fin (*Spolia atlantica*, p. 182, pl. v. figs. 70-79).

² The French Deep-Sea Exploration in the Bay of Biscay, Rep. Brit. Assoc., 1880, p. 387.

³ Nuova rivista delle conchiglie Mediterranee, p. 50.

⁴ *Ibid.*, p. 50.

⁵ Histoire naturelle des Mollusques Pteropodes.

⁶ *Spolia atlantica*, pp. 38-50.