

Aplysioidea, then these must be indisputably so with those of the Bulloidea, for they pass insensibly from one into the other by transitional stages. On the other hand the fins of the Thecosomata correspond with the parapodia of the Bulloidea, and like these latter are continuous with the plantar surface of the foot, and also continuous with the posterior or ventral lobe of the foot. Hence it follows that, contrary to the opinion of Boas,¹ the fins of the Thecosomata and those of the Gymnosomata are strictly homologous.

d. If we consider the digestive tract:—

- (i.) *Radula*.—The teeth of the Gymnosomata resemble in form those of a large number of Tectibranchs, e.g., *Aplysia*. As in this case it is seen that, in the same transverse row of the radula, all the teeth except the median one are identical in form and only differ by decreasing in size from the innermost to the outermost.

Furthermore, we have seen that in the Gymnosomata the number of lateral teeth increases with age.² In *Aplysia*,³ and probably in all the other Anaspidea, the state of matters is exactly the same.

- (ii.) *Jaws*.—All the Gymnosomata are provided with paired jaws, which meet in the middle line ventrally. *Clione* alone is without them, as are certain carnivorous Tectibranchs, e.g., *Actæon*, *Doridium*, *Lobiger*.

But in addition to the jaws united upon the floor of the buccal cavity in front of the radula, the Gymnosomata, except *Halopsyche*, possess hook-sacs, the homologies of which are not clearly explained.

When Eschricht published the anatomical description of *Clione*⁴ the horny buccal organs of other Gymnosomata were not known. Eschricht, finding in this Gymnosome a radula and no jaws, but two hook-sacs, regarded these latter as representing morphologically the jaws of other Molluscs.⁵ Since then, however, the study of the Gymnosomata has shown that they possess, in addition to the hook-sacs found in *Clione*, two jaws approximated in the ventral median line which are wanting in this latter.

The homologies of the hook-sacs are thus still unknown.

They are not, however, entirely new structures which are not found elsewhere. On the contrary, and in fact in the Aplysioidea (*Notarchus*, *Dolabella*, &c.), there may be observed an arrangement in which it is easy to see the origin of the hook-sacs of the Gymnosomata. This arrangement, to which attention was first called by Vayssière,⁶ consists in the presence on

¹ *Spolia atlantica*, p. 179.

² *Zool. Chall. Exp.*, part lviii. pp. 6, 13.

³ Vayssière, *Recherches zoologiques et anatomiques sur les Mollusques Opisthobranches du Golfe de Marseille*, i. Tectibranches, *loc. cit.*, p. 61.

⁴ *Anatomische Untersuchungen über die Clione borealis*, 1838.

⁵ *Ibid.*, p. 10.

⁶ Vayssière, *Recherches zoologiques et anatomiques sur les Mollusques Opisthobranches du Golfe de Marseille*, i. Tectibranches, *loc. cit.*, p. 90.