are always united in the median line. The jaw of the Thecosomata is always formed of two quite distinct pieces.

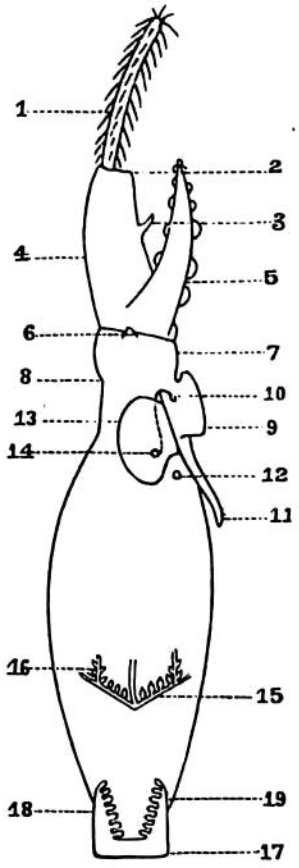

FIG. 1.—Diagram of a *Pneumonoderma*, seen from the right side, showing the different external parts of a Gymnosomatous Pteropod. 1, right hook-sac; 2, position of the jaw; 3, ventral papilla of the proboscis; 4, proboscis; 5, right acetabuliferous buccal appendage; 6, right buccal tentacle; 7, head; 8, position of the right nuchal tentacle; 9, right anterior lobe of the foot; 10, orifice of the penis; 11, posterior lobe of the foot; 12, anus; 13, right fin; 14, genital orifice and spermatic groove, hidden beneath the fin; 15, lateral gill; 16, lateral somatic crest of the lateral gill; 17, posterior gill (quadrangular crest); 18, radiating crest of the posterior gill; 19, fringes of the radiating branchial crest.

6. The radula of the Gymnosomata is provided with long, lateral teeth, with large basal pieces; the number of the teeth in a transverse row generally increases with age, until the adult state is reached, so that a knowledge of the radula of young specimens is of little use for specific identification. The radula of the Thecosomata has but one lateral tooth on each side, with a small basal piece.

In spite of the well-marked differences between the two groups, there are, however, some forms about the systematic position of which all zoologists do not agree, some placing them among the Gymnosomata, and others among the Thecosomata. *Halopsyche* (*Eurybia*), for instance, has been placed by many among the Thecosomata, because its organisation was not well known; but we shall see further on that it is indisputably a Gymnosomatous Pteropod. As for the Cymbuliidæ, even Fol[1] questions whether they have not more affinities with the Gymnosomatous than with the Thecosomatous Pteropoda. But they cannot be placed among the former, because they possess all the essential characters of the Thecosomata as given in the foregoing table, and do not exhibit any of those of the Gymnosomata. There is, therefore, nothing to justify Tiberi's opinion that *Tiedemannia* (*Gleba*), should be placed among the latter.[2]

3. THE HABITS OF THE GYMNOSOMATA.

The Gymnosomatous Pteropoda do not form a numerous group of species, but they are found in all the seas of the world, and sometimes in great abundance. They are small animals, not more than an inch and a half long, and are carnivorous, often feeding on their Thecosomatous allies.

Naturalists are not agreed as to the position assumed by the Gymnosomata when

[1] Sur le développement des Ptéropodes, *Archives d. Zool. expér.*, ser. 1, t. iv. p. 173.
[2] Mollusques marins d'Italie, *Ann. Soc. Malacol. Belg.*, t. xiii. p. 77.