

Grobben<sup>1</sup> also affirms that the Pteropoda ought to be included in the class Gastropoda, but without deciding to which group they are related.

In 1885 I pointed out, when treating of the cephalic appendages, that the affinities of the Pteropoda are with the Euthyneura (Pulmonata and Opisthobranchia),<sup>2</sup> and since then I have defended their precise affinities with the Opisthobranchia,<sup>3</sup> and especially with the Tectibranchia.<sup>4</sup>

Lastly, Boas, in the morphological introduction to a work systematic in the main,<sup>5</sup> has followed out rigorously the view of de Blainville, and it is to be regretted that this part was not more extensive, and that he did not give at full length a demonstration of the affinities of the Pteropoda with the Tectibranchiate Opisthobranchs, and of the genealogical relations of the two groups.

There are no other instances of avowed adhesion to this view. The "class" Pteropoda still keeps its position everywhere; and its so-called affinities with the Cephalopoda are maintained by the powerful support of timid souls, who not being able to make up their minds to modify the Cuvierian system, and having really no opinion of their own, retain the generally received ideas as a matter of prudence.

From this rapid historical sketch, it appears that there are three different theories regarding the systematic position of the Pteropoda.

1. They form a distinct class.
2. They are Cephalopods.
3. They are Gastropods.

We must therefore attempt to answer the following questions:—

1. Are the Pteropods Cephalopods?
2. Are the Pteropods Gastropods?

If we obtain a negative answer to these two questions, then we must clearly retain the Pteropods as a distinct class, but if either of them be answered in the affirmative, the "class" Pteropoda must be abandoned.

In order to answer the two questions we shall compare the Pteropods successively with the Cephalopoda and the Gastropoda, on the basis of those anatomical characters which are common to the Thecosomata and Gymnosomata.

<sup>1</sup> Morphologische Studien über den Harn- und Geschlechtsapparat sowie die Leibeshöhle der Cephalopoden, *Arch. Zool. Inst. Wien*, Bd. v. p. 245.

<sup>2</sup> On the Cephalic Appendages of the Gymnosomatous Pteropoda, *Quart. Journ. Micr. Sci.*, vol. xxv., N. S., p. 506.

<sup>3</sup> Recherches sur le système nerveux des Ptéropodes, *Arch. de Biol.*, t. vii. p. 127.

<sup>4</sup> Description d'un nouveau genre de Ptéropode Gymnosome, *Bull. Sci. Dép. Nord*, 1886, p. 226.

<sup>5</sup> *Spolia atlantica*, &c., *K. dansk. Vidensk. Selsk. Skriv.*, 6 Raekke, Bd. iv. p. 12.