

THE  
VOYAGE OF H.M.S. CHALLENGER.

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ZOOLOGY.

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REPORT on the PTEROPODA collected by H.M.S. Challenger during the  
Years 1873-76. By PAUL PELSENEER, D.Sc. (Brussels).

**PART I.—The GYMNOSOMATA.**

INTRODUCTION.

1. HISTORY OF THE GROUP.

It is now more than two hundred years since a Gymnosomatous Pteropod was first described and figured;<sup>1</sup> but it was only at the beginning of this century that the organisation of these animals was investigated, and the group Pteropoda established.<sup>2</sup>

As to the subdivision Gymnosomata, its establishment is of a still later date. Péron and Lesueur, who considered the Pteropoda to form a much larger group than they really do,<sup>3</sup> divided these animals into two subgroups:—(1) those without shells; (2) those with shells<sup>4</sup>—and it has been found that this division, established on the very empirical character of the presence or the absence of a shell, is quite justified by the anatomical differences, as will be seen further on.

Nevertheless, the majority of zoologists continued for a long time to divide the Pteropoda into non-natural groups. Thus, Cuvier<sup>5</sup> distinguished those forms with

<sup>1</sup> *Clione limacina*, in 1676, by Martens, Spitzbergische oder grönlandische Reisebeschreibung, p. 169, pl. P. fig. f.

<sup>2</sup> By Cuvier, in 1804 (Mémoire sur l'Hyale et le Pneumoderme; *Ann. Mus. Hist. Nat. Paris*, t. iv. p. 232), and not in 1798, as noticed by Bronn (Die Klassen und Ordnungen des Thierreichs, Bd. iii. p. 584).

<sup>3</sup> They embraced, in fact, Opisthobranchia (*Phyllirhoë*, *Glaucus*), Heteropoda (*Carinaria*, *Firola*), and even Ctenophora (*Callianira*).

<sup>4</sup> Histoire de la famille des Mollusques Ptéropodes; *Ann. Mus. Hist. Nat. Paris*, t. xv. p. 57, 1810.

<sup>5</sup> Le Règne animal, ed. 1, 1817.