

And as to the species collected on the Challenger Expedition, I shall not describe those which are already sufficiently well known, and in regard to which there is no manner of doubt or dispute. I shall restrict my descriptions to the doubtful or imperfectly known species, attempting at the same time to make their systematic arrangement more lucid and less complex.

It is a noticeable fact that in general works on the systematic relations of Molluscs, the diagnoses of the families and genera of Pteropods are always the same, and that from a comparatively ancient date, just as if they had been verbally copied by successive authors. And since they have not been modified with the progress of research, the result is that they are often incorrect. I have therefore taken particular care with the diagnoses of families and genera, and have based these on specimens which I have myself studied. The diagnoses I have framed as simply and methodically as possible.

My monographic study of the subgroup Thecosomata has been based upon the following collections :—

1. The dry and preserved specimens in the British Museum.
2. The dry shells of Thecosomata in the Brussels Museum.
3. The Thecosomata collected on the "Triton" expedition.
4. The Thecosomata collected by Mr. John Rattray, F.R.S.E., during the cruise of the steamship "Buccaneer" on the western coast of Tropical Africa (1885–86).
5. The Thecosomata collected by the Italian vessel "Vettor Pisani" during the scientific expedition round the world (1882–85).
6. The Pteropods captured by Surgeon David Bruce, M.B., near Malta (1886).
7. The Thecosomata collected at the Zoological Station at Naples during my stay there (from February to July 1887).

I must also gratefully acknowledge my indebtedness to Mr. Edgar A. Smith, of the Zoological Department of the British Museum, from whom I have received much assistance, to Professor Ch. Vélain, of Paris, and to Mr. W. H. Dall, of the U.S. National Museum.

After enumerating the species I shall discuss the geographical distribution of the group. The phylogenetic relations of the different genera can only be satisfactorily discussed after some treatment of the anatomy, and will therefore be discussed in the anatomical Report.

#### THE HABITS OF THE THECOSOMATOUS PTEROPODS.

I have nothing to add here either in regard to the history of the group or the differences between the two subdivisions. The subject has been sufficiently discussed in the Introduction to my Report on the Gymnosomatous Pteropods.<sup>1</sup>

<sup>1</sup> Zool. Chall. Exp., part lviii. pp. 1–6.