

So too in regard to the habits of the Thecosomata. Like the Gymnosomata they are pelagic Molluscs, which descend to a certain depth to avoid bright light, and reascend when the light is feeble or absent, and when the sea is calm. They feed mainly on Protozoa (Radiolaria, Foraminifera, Infusoria) or on lower Algæ, while the Gymnosomata prey upon decidedly higher animals. This difference of diet is the condition effecting the notable diversity in the structure of the alimentary system, and especially of the buccal and stomachic armature.

THE THECOSOMATA OF THE CHALLENGER EXPEDITION.

The Thecosomatous Pteropods collected on the Challenger Expedition, which form the material bases of the present Report, comprise two distinct series:—

1. The Thecosomata captured alive in the tow-nets, and preserved in alcohol or in microscopic preparations mounted in Canada balsam or in glycerine. These were entrusted to me towards the end of 1885 for use in my Report on the anatomy of the group.

2. The dry shells from deep-sea deposits, the importance of which will be discussed in the special report on the sea-bottom. This collection was selected from the deposits in the Challenger Office and also by Mr. Alfred E. Craven, who at one time proposed to write the Conchological Report on this group. It passed into my hands in the beginning of 1887, when a large number of the specimens had been already assorted.

I. The Thecosomata taken alive were gathered from seventy stations, and include twenty-eight species representing all the known genera. Among these species there is no new form, though a certain number have been hitherto insufficiently known or only once recorded.

The following table indicates the distribution of these species among the different genera.

<i>Limacina</i> ,	6
<i>Peraclis</i> ,	1
<i>Clio</i> ,	10
<i>Cuvierina</i> ,	1
<i>Cavolinia</i> ,	8
<i>Cymbulia</i> ,	1
<i>Gleba</i> ,	1
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that is, among 7 genera,	28 species.

II. The Thecosomata dredged from the deposits of the deep sea occur in all those known by the title "Pteropod ooze," and also in others. I have received the