SUMMARY AND GENERAL REMARKS.

The present section will consist of a brief summary of the chief additions made by the Challenger Expedition to our knowledge of the Compound Ascidians, along with a discussion, where necessary, of any structural points of interest or novelty. An account of the probable phylogeny of the group, and of its relations to the other Tunicata, will conclude this part of the Report. The remarks upon the different genera and species in the following pages are arranged in the same order in which the families were treated in the preceding systematic part of the work, beginning with the Botryllidæ and ending with the Polystyelidæ. This, as was pointed out in the Introduction, is a somewhat artificial arrangement. The natural relations of the families will be discussed further on, in connection with the phylogeny of the group.

The family Botryllidæ is represented in the collections by seven species and a well-marked variety, all new to science. It is remarkable that all the Challenger specimens belong to the genus *Botrylloides*, while *Botryllus*, which is so common on the coasts of north-west Europe, was not obtained in any of the expeditions. The Botryllidæ were all collected to the north of the equator, and the only tropical region in which they occurred was the Philippine Islands. No new genus has been required in this family. The name of the new species described on page 41 as *Botrylloides purpureum* I now change to *Botrylloides tyreum*, as the specific name *purpureum* was pre-occupied by a distinct species.[1]

The family Distomidæ is represented by fifteen species and a well-marked variety. It is a large group, including von Drasche's family Chondrostachyidæ, and a series of new forms, for which the genus *Colella* has been founded (see p. 72). This genus is allied to *Distaplia*, Della Valle, and to *Oxycorynia*, von Drasche; it contains nine species and a variety, all new to science with the exception of *Colella pedunculata*, described in 1834 under the name of *Aplidium pedunculatum* by Quoy and Gaimard. Most of these forms have the test of the lower part of the colony remarkably modified, so as to form a well-

[1] See von Drasche, Die Synascidien, p. 15.