

INTRODUCTION.

I SHALL follow here the same plan which I adopted in the preceding part of this Report, and give, along with a supplementary bibliography, a short account of the history of the groups to be described farther on.

HISTORY.

The group Tunicata when first established as a class by Lamarck¹ in 1816, contained only two pelagic forms, *Salpa* and *Pyrosoma*. Of these the genus *Salpa* had been established by Forskåhl in 1775, but some of the forms which are now referred to it or to *Cyclosalpa* had been previously described more or less fully under the names *Holothuria* (Linnæus), *Holothurium* (Pallas), *Thalia* (Browne), and *Dagysa* (Banks). Forskåhl had been fortunate in finding a large proportion of the existing species of *Salpa*, and much of the confusion in the group has been caused by other authors since re-describing his species under new names, generic and specific.

Pyrosoma had been first made known by Péron in 1804, and was shortly afterwards treated more fully by Lesueur and Savigny. These researches, along with those of Cuvier on the anatomy of *Salpa*, showed the relationship of those pelagic forms to the Simple and Compound Ascidiæ then being investigated by Savigny, and enabled Lamarck to unite them all in the class Tunicata.

A few years afterwards, in 1819, Chamisso published the observations made during his celebrated voyage round the world, and announced the important discovery that *Salpa* in its life-history passes through the series of changes which were afterwards more fully described by Steenstrup in 1842 as alternation of generations. He observed first that each species of *Salpa* had two forms which were produced alternately, so that, as Chamisso put it, "a *Salpa* mother is not like its daughter or its own mother, but resembles its sister, its grand-daughter, and its grand-mother."

The next discovery of importance was likewise made on *Salpa*. In 1822, Kuhl and van Hasselt observed the alternation in the direction in which the wave of contraction passes along the heart, and in which the blood circulates through the body. It has since been found by many investigators that this remarkable observation, first discovered in the case of *Salpa*, holds good for all groups of the Tunicata.

¹ For references to the literature, see Part I., Bibliography; and also farther on in the present part, under the various families and genera.