

## DESCRIPTIONS OF THE GENERA AND SPECIES.

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IN the generic and specific descriptions, I have as far as possible followed the same system as that employed in the case of the Simple and Compound Ascidiæ in the previous parts of the Report. The branchial aperture in all cases is regarded as indicating the anterior end of the body, while the nervous system is dorsal, and the endostyle ventral.

I still make use of the classification given at the beginning of Part I., with those few additions which are rendered necessary by discoveries made since 1882.

The class TUNICATA is divided into three orders, the ASCIDIACEA, the THALIACEA, and the LARVACEA.

### Order I. ASCIDIACEA.<sup>1</sup>

This group includes fixed or free-swimming Simple or Compound Ascidiæ, which in the adult are never provided with a tail, and have no trace of a notochord. The free-swimming forms are colonies, and the Simple Ascidiæ are fixed.

The test is permanent and well developed; as a rule, it increases with the age of the individual.

The musculature of the mantle is in the form of an irregular network, there being no regular circular bands.

The branchial sac is large and well developed. Its walls are perforated by numerous slits (the stigmata) opening into a single peribranchial cavity, which communicates with the exterior by the atrial aperture.

The anus opens into the peribranchial cavity.

Many of the forms reproduce by gemmation, and in most of them the sexually produced embryo develops into a tailed larva.

The order Ascidiacea is divided into three sections,—the ASCIDILÆ SIMPLICES, the ASCIDILÆ COMPOSITÆ, and the ASCIDILÆ SALPIFORMES.

<sup>1</sup> For the characters of order II. see page 86, and of order III. see page 96.