

animal in the reverse position to that employed by most authors, that is, he has the base of attachment upwards, and the branchial aperture hanging down. These are his superior and inferior regions; then the endostyle is placed forwards and called anterior, while the opposite edge—the atrial part—is posterior. The result is that the stomach lies on what Lacaze-Duthiers considers the right side of the branchial sac—the same arrangement as was obtained by the systems of Savigny and Hancock, although the last mentioned authors placed the animal so that the branchial aperture should be superior (see diagrams in Lacaze-Duthiers' memoir).

Julin,¹ and apparently Traustedt² also, employ the same nomenclature as Heller, and this is the system adopted in the present work. If the animal be placed with the endostyle downwards, and the branchial aperture pointing away from the observer, then the two sides correspond with his right and left hands. The region of the branchial aperture (fig. 1, *Br.*)

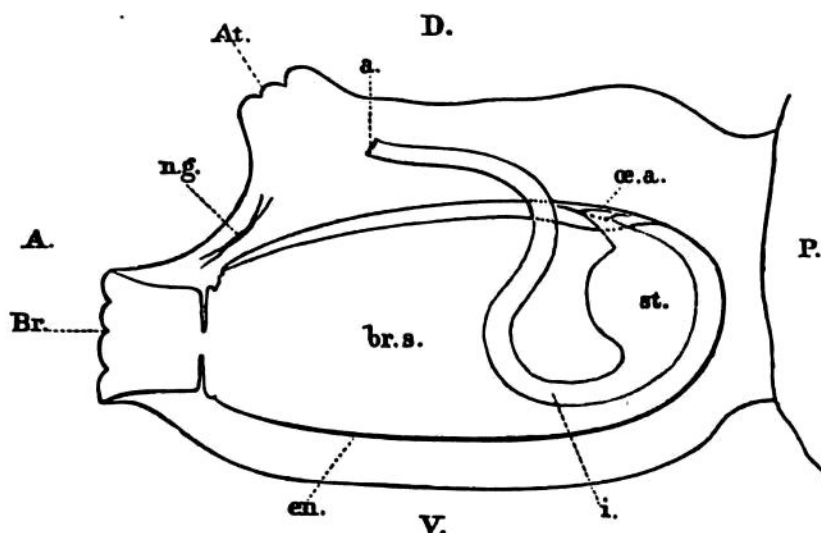


FIG. 1.—Diagram showing the position of an Ascidian, viewed from the left side.

A., anterior end; *P.*, posterior end; *D.*, dorsal edge; *V.*, ventral edge; *Br.*, branchial aperture; *At.*, atrial aperture; *br.s.*, branchial sac; *en.*, endostyle; *o.e.a.*, oesophageal aperture; *st.*, stomach; *i.*, intestine; *a.*, anus; *n.g.*, nerve ganglion.

is thus anterior, and the opposite end, usually the place of attachment, is posterior; the lower surface, along which the endostyle (*en.*) runs, is ventral, and the opposite edge, on some part of which the atrial aperture generally opens, is dorsal.

According to this system, the stomach (*st.*) and intestine lie (in most of the genera and species of Simple Ascidiæ, *e.g.*, *Ascidia mentula*) upon the left side of the branchial sac (fig. 1) and this side corresponds to the *left* side of Milne-Edwards, Kupffer, Heller, Hertwig, Traustedt, and Julin, but to the *right* side of Savigny, Alder, Hancock, Lacaze-Duthiers, &c.

¹ Recherches sur l'Organisation des Ascidiæ Simples, *Arch. de Biologie*, vol. ii. p. 59.

² Oversigt over de fra Danmark, &c., Asc. Simp., *Vid. Medd. Nat. For. Kjøbenhavn*, 1879-80.