

*Didemnum*, Savigny.

*Didemnum*, Savigny, Mémoires, 1816. In part.

*Didemnum*, Giard, Recherches, &c., Archives d. Zool. expér., t. i. p. 647, 1872.

*Trididemnum*, Della Valle, Nuovi Contribuzione, &c., 1881.

*Didemnum*, von Drasche, Die Synascidien, &c., 1883.

non *Didemnum*, Kowalevsky, Archiv f. mikrosk. Anat., Bd. x., 1874.

*Colony* usually thick and fleshy, rarely thin and incrusting.

*Ascidiozooids* with the atrial aperture on the dorsal edge of the thorax, often placed far back. Atrial siphon lobed or simple. No atrial languet present.

*Test* gelatinous or cartilaginous, usually not very hard or stiff. Calcareous spicules usually present.

*Branchial Sac* with three rows of stigmata.

This genus, as formed by Savigny, would include all the Didemnidæ with the exception of *Eucælium*. Giard, however, has restricted its use by employing Milne-Edwards' genus *Leptoclinum* for the thin incrusting forms and retaining *Didemnum* for the more massive species of the family. It was more fully and correctly characterised recently by von Drasche, and it is used here in the same restricted sense, except that I do not consider the number of rows of stigmata in the branchial sac of so much importance as von Drasche does.

Della Valle's generic title *Trididemnum* seems unnecessary, and ought to lapse. Sufficient information has not yet been given in regard to his new species *Trididemnum benda*, but, so far as can be made out from his figures, it seems to agree in all essential points with a typical *Didemnum*. If it should happen to be a species forming a thin incrusting colony, it might be convenient to split up *Didemnum* and apply Della Valle's name *Trididemnum* to species with thin colonies and three rows of stigmata, while the thicker species would remain under *Didemnum*.

The genus *Didemnum* as used here is characterised by having thick, massive, and usually fleshy colonies in which the test is not so hard and stiff as it is in most species of *Leptoclinum*. Calcareous spicules are as a rule present, but they are not in great abundance throughout the whole test. The ordinary arrangement is that the spicules are numerous in the superficial layers of test, and are scarce or even absent in the deeper parts. In *Didemnum inarmatum*, von Drasche, *Didemnum tortuosum*, von Drasche, and *Didemnum* (?) *inermis*, Herdman (see below, p. 265) there are no spicules present in the test.

The Ascidiozooids are characterised by having the atrial aperture placed far back on the dorsal edge of the thorax in place of being at the anterior end. As a rule there is an atrial siphon, and no atrial languet is present.