

Botrylloides, Milne-Edwards.

- Botryllus*, Savigny, Mémoires, &c., 1816. In part.
Botrylloides, Milne-Edwards, Observations, &c., 1842. In part.
Botrylloides, Forbes and Hanley, British Mollusca, 1853. In part.
Botrylloides, Alder, Ann. and Mag. Nat. Hist., 1863. In part.
Botrylloides, Giard, Recherches, &c., 1872. In part.
Botrylloides, Della Valle, Contribuzioni, &c., 1877. In part.
Botrylloides, von Drasche, Synascidien, &c., 1883, p. 15.

Colony thin, incrusting, and usually gelatinous.

Systems elliptical, or elongated, forming branched and sometimes anastomosing lines.

Ascidiozooids cylindrical, with the apertures placed near one another on the anterior end.

Test soft and gelatinous, never much thickened, penetrated by many vessels.

Branchial Sac long and well developed.

Alimentary Canal placed alongside the branchial sac at its posterior end.

Reproductive Organs placed on both sides of the body near the posterior end.

This genus is distinguished from *Botryllus* and from *Polycyclus* by the shape of the systems, which may be of any form so long as they are not regular and circular; and from *Sarcobotrylloides* and *Polycyclus* by the colony forming a thin crust and not a solid mass. In this restricted sense *Botrylloides* has been used by von Drasche, while all other writers since Milne-Edwards (1842) include in it forms with a thickened test and massive colonies (*Sarcobotrylloides*, von Drasche).

Savigny, as Giard has pointed out, really indicated this genus in 1816 by dividing his species of *Botryllus* into sections, of which his first tribe corresponds exactly to Milne-Edwards' *Botrylloides*. No one, however, seems to have considered the group of species worthy of generic rank until Milne-Edwards in 1842 founded the genus *Botrylloides* for Savigny's first tribe of *Botrylli* and some new species which he described and figured in his great work on the Compound Ascidians of the English Channel. Since then many new species have been described, chiefly by Alder, Giard, and Della Valle.

I have adopted von Drasche's separation of the thin incrusting forms from those producing thick masses (*Sarcobotrylloides*), as it is certainly a convenient distinction and one which deserves to be recognised as much as does the similar character distinguishing *Botryllus* from *Polycyclus*.

The systems of *Botrylloides* are usually very irregular, but have a characteristic appearance (see Fig. 8, D and E, p. 39, and Pl. I. Figs. 1, 4). They are formed generally of several lines extending in different directions from a common cloaca, and in some cases branching and anastomosing. The Ascidiozooids border these lines, and are therefore placed in more or less parallel double rows. The following diagrams (Fig. 8)