

Ascidiozooids ova are present in two masses, one on each side of the body near the posterior end, but in the fully developed condition no ova are present, and the irregularly stellate genital gland is formed entirely of spermatic vesicles.

An extraordinarily large number of tailed larvæ are present in the colony. They appear to be all at the same advanced stage of development. Only one pigmented sense-organ is present; it is placed to the left of the middle line when the body is viewed from the dorsal surface. The shape of the body of the larva varies according to the point from which it is viewed. When seen from the side (Pl. IV. fig. 17) it is equally wide in front and behind, while the dorsal or the ventral aspect shows the posterior end much narrower than the anterior (Pl. IV. fig. 16). The urochord is very distinct, and is formed of a single series of large cubical cells (see Pl. IV. fig. 18).

### *Polycyclus*, Lamarck.

*Polycyclus*, Lamarck, Mém. Mus. Hist. Nat. Paris, t. i., 1815.

*Botryllus*, Savigny, Mém. Anim. s. vert., pp. 47, 202, 1816. In part.

*Polycyclus*, Risso, Hist. Nat., &c., t. iv., Paris, 1826, p. 280.

*Polycyclus*, Lamarck, Hist. Nat. Anim. s. vert., vol. i. p. 575, 1837.

*Polycyclus*, Delle Chiaje, Descrizione e Notomia, &c., t. iii. p. 19, Nap., 1841 (as a subgenus).

*Botryllus*, Milne-Edwards, Observations, &c., 1842. In part.

*Botryllus*, Forbes and Hanley, British Mollusca, vol. i., London, 1853. In part.

*Botryllus*, Grube, Die Insel Lussin, &c., p. 64, Breslau, 1864. In part.

*Botryllus*, Giard, Recherches sur les Synascidies, p. 619, Paris, 1872. In part.

*Polycyclus*, Della Valle, Contribuzioni, &c., p. 22, Napoli, 1877 (as a subgenus).

*Polycyclus*, von Drasche, Die Synascidien der Bucht von Rovigno, p. 13, Wien, 1883 (as a subgenus).

*Colony* thick, fleshy, and often lobed.

*Systems* circular in outline.

*Ascidiozooids* ovate, with the apertures rather distant from one another.

*Test* gelatinous, but solid and much thickened, vessels present.

*Branchial Sac* large and well developed.

*Tentacles* from two to sixteen in number.

*Alimentary Canal* placed alongside the posterior end of the branchial sac.

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

This genus, although founded as far back as 1815, has been by no means generally accepted by writers on the Tunicata, most of whom have included Lamarck's species in the genus *Botryllus*.

Della Valle in 1877 characterised *Polycyclus* afresh, and regarded it as being of equal rank with *Botrylloides*, both being subgenera. On the other hand, von Drasche considers *Botrylloides* as a distinct genus, and *Polycyclus* as merely a subgenus of *Botryllus*. I prefer, as explained before (p. 36), to regard these groups of species as being all of