

The genital duct is formed of two tubes lying side by side—the oviduct and the vas deferens. They open close together, not far from the atrial aperture, and close to the outer of two circlets of minute tentacular processes, which project from the inner surface of the cloacal wall close to the atrial aperture (Pl. XXIV. fig. 12). These processes seem like a pair of rudimentary diaphragms in the atrial siphon.

One specimen of this species was obtained in the Southern Ocean, between the Cape of Good Hope and Kerguelen Island, at Station 147; December 30, 1873; lat. 46° 16' S., long. 48° 27' E.; depth, 1600 fathoms; bottom temperature, 0°·8 C.; bottom, globigerina ooze.

Polycarpa, Heller.

- Cynthia*, Savigny, Mémoires sur les Animaux sans Vertèbres. Pt. ii. fasc. 1. 1816. In part.
Ascidia, Quoy and Gaimard, Voyage de l'Astrolabe—Zool., t. iii. 1830-34. In part.
Cynthia, Forbes and Hanley, British Mollusca, vol. i. 1848-53. In part.
Styela, Hancock, Anat. and Physiol. of Tunicata, Journ. Linn. Soc. 1868. In part.
Cynthia, Kupffer, Jahresber. der Commiss., &c. 1875. In part.
Polycarpa, Heller, Untersuch. ü. d. Tunicaten d. adriat. Meeres., Abth. 3. 1877.
Polycarpa, Heller, Beiträge zur nähern Kenntniss der Tunicaten. 1878.
Styela, Traustedt, Oversigt over de fra Danmark, &c., Ascidiæ Simplicis. 1880. In part.

Body attached, sessile, rarely stalked, occasionally incrustated with sand. Branchial and atrial apertures either four-lobed or cross-slit.

Test usually coriaceous, rarely cartilaginous.

Branchial Sac with four or less than four folds upon each side.

Tentacles always simple.

Intestine forming a wide loop.

Genitalia in the form of a large number of small masses scattered over the inner side of the mantle.

Heller separated *Polycarpa* from *Styela* in 1877, giving as the chief distinguishing features the wide loop formed by the intestine, and the presence of a large number of small genital glands, to which he gave the name of "polycarps." The close relationship of *Polycarpa* to *Styela* has been already discussed (see under *Styela*, p. 149).

In external appearance and the nature of the test this genus varies greatly. The typical condition is attached and sessile, with a thin but tough and leathery test, not incrustated with sand. A short stalk is however occasionally formed, as in *Polycarpa viridis*, by a prolongation of the posterior end of the body, and the test may become thickened and cartilaginous in consistency, as in *Polycarpa sulcata*. In some species incrustating sand is present in quantities ranging from a few adhering grains, as in *Polycarpa radicata*, to a complete coating, as in *Polycarpa tinctor*. While finally in *Polycarpa molguloides* the investment is very thick, and the grains are attached to long delicate hairs as in a typical species of the genus *Molgula*.