

more. There are six or seven stigmata between the dorsal lamina and the first internal longitudinal bar (Pl. IV. fig. 3), and about the same number (in the middle of the sac) between the endostyle and the third bar, so that altogether there are about twenty stigmata in one of the longest rows of a fully developed sac. The stigmata are very regular, and are usually wider than the fine longitudinal vessels. They are often wider than is shown in the figure (Pl. IV. fig. 3, *sg.*). The endostyle is rather narrow.

The eight tentacles (Pl. IV. fig. 2, *tn.*) are usually all of the same length, but in some cases four of them are shorter, the long ones being the dorsal and ventral and the two median lateral tentacles. The latter pair are never larger than all the others, as they are in von Drasche's *Polycyclus violaceus*. The dorsal tubercle (Pl. IV. fig. 2, *d.t.*) is decidedly small and inconspicuous. It is placed much nearer to the dorsal lamina than to the tentacles. There is no well-marked peritubercular area. The figure formed by the peripharyngeal band is pyriform, with the narrower end ventral. The anterior extremity of the endostyle is further from the branchial aperture than the anterior end of the dorsal lamina is.

The alimentary canal is fairly compact, and lies alongside the posterior one-fourth or so of the branchial sac. The œsophagus runs posteriorly and ventrally with a slight curve. The stomach is not very large. It is ovate in shape, with the intestinal end widest. There are four or five projecting folds on each side. The intestine runs anteriorly and then turns dorsally, and, touching the anterior wall of the stomach in its whole course, reaches the œsophagus, where it turns anteriorly again and runs forwards as the rectum for a short distance along the dorsal edge of the branchial sac (Pl. IV. fig. 3, *r*). The anus opens into a considerable cloaca, the dorsal part of the peribranchial cavity, and this communicates with the common cloacal cavity of the system by the bulbous prolongation of the mantle already described (Pl. IV. fig. 3, *at.*). The anus is curiously shaped. The rectum narrows considerably at the top, to form a neck, above which the margin of the anus expands into a more or less flattened disk with an irregularly crenated margin. Figure 4 shows the top of the disk and the small puckered anal aperture as seen from above; figure 5 shows another specimen seen from the side and in optical section; while figure 3 represents in surface view, as seen from the side, an anus where the disk had only two marked crenations, thus giving it rather a bilabiate appearance.

The reproductive organs are, contrary to the rule in most of the Botryllidæ in the collection, hermaphrodite. They consist in the fully developed Ascidiozoid of one or two large yellow ova and an irregular group of spermatoc vesicles. They are placed in the usual position on both sides of the body.