

and is opaque. When split open or sectionised it is seen to have a very large number (varying from twenty-five to forty in the various stomachs examined) of folds in its interior (see Pl. XVI. fig. 15). These folds are not very prominent, but are closely placed; they run longitudinally, but are not continued over the entire length of the organ. They frequently branch, and new folds commence at various points, thus producing undulations in the course of the neighbouring ones. Figure 15 represents not a surface view of the folds, but an optical section, obtained by focussing down a little from the inner surface. In this way the columnar cells which form the folds are seen in profile; *gr.* indicates the groove between two folds, and *fd.* the centre of a fold.

The stomach opens on the dorsal side of its posterior end into a very short piece of narrow intestine, which at once dilates into a large globular cavity, forming the posterior and dorsal part of the visceral mass (Pl. XVI. fig. 11). This is continued at its anterior extremity into a small funnel-shaped piece of intestine, which, after a slight constriction, opens into the long rectum. This part of the tube is narrow at its commencement, and runs anteriorly and slightly ventrally to reach the œsophagus. It then runs straight forwards, swelling slightly as it goes, and finally terminates in the anus, which is placed at the base of the atrial siphon (Pl. XVI. fig. 11, *at.*). The anterior part of the rectum is very large, and is usually distended with dark-coloured fæcal matter. Viewed as a whole, the alimentary canal is remarkable for its large size and for the irregularity in its calibre. The intestine lies throughout its entire course on the dorsal side of the stomach.

All the Ascidiozooids examined were hermaphrodite, there being one or two large ova along with the spermatic vesicles (Pl. XVI. figs. 9, 11). The latter (Pl. XVI. fig. 11, *t.v.*) stain more deeply with picrocarmine than the ova, and are large, opaque ovate bodies, placed in groups on the side of the intestine, and projecting beyond it on the dorsal edge and posteriorly. Each Ascidiozoid has a large bunch of from six to twelve vesicles (Pl. XVI. fig. 16, *t.v.*). The delicate ducts from the vesicles join at the base of the long and wide vas deferens, which is a conspicuous object running alongside the rectum throughout its entire length.

Distaplia, Della Valle.

Distaplia, Della Valle, Nuove Contribuzioni alla storia naturale delle Ascidie Composte, &c., Reale Accademia dei Lincei, 1880-81, p. 18.

Distaplia, von Drasche, Die Synascidien der Bucht von Rovigno, Wien, 1883, p. 22.

Colony in the form of lobed masses or club-shaped knobs.

Systems distinct, each one forming a knob or lobe of the colony.

Ascidiozooids elongated antero-posteriorly, and placed vertically in the colony.

Branchial aperture six-lobed. Atrial aperture provided with a languet.

Test gelatinous, penetrated by ectodermal prolongations from the Ascidiozooids.