The alimentary canal is comparatively inconspicuous, and is usually more or less hidden by the reproductive organs (Pl. XIV. fig. 5). The œsophagus (*œ.*) commences rather at the dorsal side of the posterior end of the branchial sac, and leads directly backward in a funnel-like form (Pl. XIV. fig. 6, *œ.*) to the anterior end of the stomach. The stomach is not large, and seems to vary a little in its exact shape. In some cases (Pl. XIV. fig. 5, *st.*) it is elliptical with narrow ends, which pass gradually the one into the œsophagus and the other into the intestine, but in one Ascidiozooid examined the stomach was truncated at the anterior end and the funnel-shaped œsophagus entered it in a slight depression (see Pl. XIV. fig. 6, *st.*). The stomach was long and nearly equally wide throughout its anterior three-fourths, which was directed dorsally and posteriorly. The remaining fourth narrowed rapidly, and turned abruptly so as to form a right angle with the front part and point ventrally and posteriorly. The posterior end was only about half as wide as the anterior, and narrower than the intestine (Pl. XIV. fig. 6, *i*). The intestine is in all cases a rather narrow tube, which runs posteriorly and then ventrally, and turns anteriorly with a wide curve leaving an open loop (Pl. XIV. fig. 5). It crosses close to the anterior end of the œsophagus, and then becomes the rectum, which is continued up the dorsal edge of the branchial sac towards the atrial aperture.

The genital glands are very large, but in all the Ascidiozooids examined consist of the male system only. There are a number of large ovate and pyriform seminal vesicles, forming together a mass about four times as large as the stomach (Pl. XIV. fig. 5, *g.*). They fill up the greater part of the intestinal loop, and project beyond the intestine posteriorly and ventrally for a considerable distance. Thus the posterior half or so of the visceral mass is usually formed by the reproductive organs. Each seminal vesicle has a short narrow duct, and the various ducts join to form a very large vas deferens, which leaves the mass at its posterior end (Pl. XIV. fig. 5, *v.d.*), and, curving round ventrally and then anteriorly, forms the ventral border of the greater part of the visceral mass. Eventually the vas deferens reaches the rectum, along with which it crosses the base of the branchial sac to reach its dorsal edge. In the whole of its course the vas deferens is a most conspicuous object. It is usually nearly as wide as the intestine (see Pl. XIV. fig. 5), and takes up stain very readily.

Colella murrayi, n. sp. (Pl. XVII. figs. 1–11).

The Colony is rudely club-shaped, consisting of a large expanded head supported by a short stout peduncle. The head is longer than it is broad, and is flattened laterally. The upper end is wide, and has an unevenly truncated appearance. The highest point is in the middle. The lower end tapers into the peduncle. The sides of the head are nearly straight. The peduncle is shorter than the head, and is not flattened laterally. It is not wide relatively to the head, but is strong. The surface is even, and fairly smooth.