

*The Ascidiozooids* are not large, and they are not very numerous. As a rule there is one Ascidiozoid in each of the rounded masses of the colony, but in some cases several Ascidiozooids are placed together in one mass; the apertures are in most cases placed upon slight papillæ projecting from one end of the Ascidiozoid; they are both four-lobed. The body of the Ascidiozoid is not elongated, and is not divided into regions.

*The Test* is thin, and tough and leathery, but not stiff. It is quite opaque. The matrix is minutely fibrillated in places. There are a few small rounded test cells, but no bladder cells are present. Vessels are found ramifying through the test. They are rather narrow, and do not branch much; the terminal twigs end in small rounded knobs. The stolons are penetrated by vessels.

*The Mantle* is strong, and has a well-developed musculature. The branchial and atrial sphincters are powerful.

*The Branchial Sac* is large and well-developed. Rudimentary folds are present, and the internal longitudinal bars are strong and conspicuous. The transverse vessels are moderately wide, and have slight horizontal membranes. The meshes are slightly elongated transversely, and contain each six or seven stigmata. They are divided by delicate transverse vessels which do not interrupt the long narrow stigmata.

*The Dorsal Lamina* is a plain narrow membrane with no ribs and no marginal teeth.

*The Tentacles* are rather short and stout. There are about twenty-four of them, and they are of two sizes placed alternately.

*The Dorsal Tubercle* is very large. It is elongated antero-posteriorly, and extends from the base of the tentacles to the dorsal lamina. The aperture is a long narrow slit.

*The Alimentary Canal* lies alongside the posterior part of the branchial sac. It is not large. The stomach has no well-marked folds.

*The Reproductive Organs* are in the form of polycarps, which are attached to the mantle. They are of small size, and are unisexual.

*Locality.*—Station 149D, January 20, 1874; Royal Sound, Kerguelen Island; lat. 49° 28' S., long. 70° 13' E.; depth, 28 fathoms; bottom, volcanic mud.

Station 149E, January 21, 1874; Greenland Harbour, Kerguelen; lat. 49° 37' S., long. 70° 16' E.; depth, 30 fathoms; bottom, volcanic mud.

Two large and several small colonies of this interesting species were obtained with the dredge from a depth of 30 fathoms in Royal Sound, Kerguelen Island.

Many of the Ascidiozooids are almost completely independent of one another (Pl. XLVI. fig. 2), being merely united by basal creeping stolons as in the case of the Clavelinidæ, but in other parts of the colony two or more Ascidiozooids may be found imbedded in the same mass of test (Pl. XLVI. fig. 3) as in the case of other Compound Ascidiæ. This species is therefore on the border line between the two groups, and