

The viscera are large ; the intestinal loop is narrow, and extends for a considerable distance anteriorly.

Specimens of this species were obtained at three localities off Kerguelen Island, Station 149, namely, Balfour Bay, January 19, 1874, 20 to 60 fathoms, 5 specimens ; Royal Sound, January 20, 1874, 28 fathoms, 6 specimens ; and Kerguelen, 10 to 60 fathoms, 2 specimens.

*Ascidia vasculosa*, Herdman.

*Ascidia vasculosa*, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1879-80, p. 465.

*External Appearance*.—The shape is very irregular, and is somewhat quadrangular and depressed. The anterior end is a little prolonged and narrower than the rest, and the body is attached by the left side near the base. The branchial aperture is not quite terminal, being on the right side of the anterior extremity. The atrial aperture is also on the right side, nearer the dorsal than the ventral edge, and a little in front of the middle. Both the apertures are rather depressed and concealed.

The surface is very irregular, it is grooved and mammillated, and has Compound Ascidiæ, Annelid-tubes, &c., adhering to it. It is of a light yellowish-grey colour, is not opaque, being rather hyaline at the edges, and showing everywhere numerous blood-vessels ramifying near the surface. The terminal twigs of the vessels, with their swollen ends, are a prominent feature.

Length of the body, 9 cm.; breadth of the body, 5·6 cm.

*The Test* is cartilaginous and solid, and varies in thickness from less than 0·5 mm. on the right side behind the middle to 1·5 cm. on the left side near the place of attachment. The apertures are lobed indistinctly ; the vascular trunks enter on the left side near the ventral edge, and branch usually dichotomously, the terminal twigs ending in swollen knobs. The test shows no bladder cells. It contains the usual small spherical fusiform and stellate cells, and many minute granules. Crystals or concretions are also present, generally in the form of short rods and crosses.

This is a specimen from the collection made at Kerguelen Island, of which nothing remains but the test. This organ seemed to me, however, to be so distinct from that of the other known species of *Ascidia*, that I described it in the first part of the Preliminary Report under the name of *Ascidia vasculosa*.

The shape is very irregular, having various grooves and projections, and being covered with several adhering animals. The blood-vessels are the distinctive feature. They are numerous and of large size, and show very distinctly from the outer surface of the test. Probably the crystals mentioned in the above description are a post-mortem change, possibly the result of the long immersion in spirit.

One specimen (the test only) was found at Station 149, Royal Sound, Kerguelen Island, January 20, 1874 ; depth, 28 fathoms.