

from Kerguelen, 10 to 60 fathoms, consists of four ovate masses united irregularly by thick peduncles. This colony is much larger than any of the others. The unevenness of the surface in some of the specimens is, I believe, the result of unequal contraction at death.

The upper end of the colony is always rounded, and the point of greatest breadth is usually not far from this end (Pl. XXVI. fig. 8). The dimensions given above are taken from one of the medium sized specimens. The largest colony in the collection measures about 9 cm. in length and 4 cm. in greatest breadth. The smallest specimen is 11 mm. in length and 6 mm. in breadth.

The Ascidiozooids are large and not numerous (Pl. XXVI. fig. 8); they are not arranged with any regularity. They lie more or less vertically in the test, and their anterior ends nearly all open upon the convex upper end of the colony. In the specimens from Royal Sound, Kerguelen, and the large colony from Kerguelen, 10 to 60 fathoms, the Ascidiozooids are particularly conspicuous, and form large opaque yellow marks upon the exterior of the colony.

The test is firm to the touch but tears readily. The outer layer is rather harder and tougher than the interior. It is rather opaque, and only allows the Ascidiozooids to show through when they are close to the surface.

There are no bladder cells and apparently no vessels present (Pl. XXVI. fig. 9). The small test cells are of various sizes and shapes, and many of them are darkly pigmented. These pigment cells are rather more numerous in the outer layer of the test and immediately around the bodies of the Ascidiozooids than elsewhere. In some places they lie closely crowded together so as to form groups in which some of the cells have become more or less polygonal from mutual pressure (Pl. XXVI. fig. 9, *t.c'*).

The mantle is strongly muscular, and both longitudinal and transverse bands are present, although the former are the largest and most numerous. In some places the muscle bands are very wide and are found to branch and anastomose freely. The ectoderm can be stripped off as a distinct membrane from the surface of the mantle. It is formed of rather large polygonal cells.

The branchial sac is in a very rudimentary condition. As the stigmata are few in number and are reduced to small rounded apertures rather irregularly placed, it is impossible to distinguish the usual systems of vessels.

The alimentary canal is short and wide, and of an opaque yellow colour. The reproductive organs are placed close behind the intestinal loop, consequently the post-abdomen is very short. Young and mature ova of various sizes were found in the Ascidiozooids.

The remaining organs of the body were not worked out in detail on account of the unfavourable condition of the specimens for examination. The tissues are all exceedingly opaque, and the Ascidiozooids, especially in their anterior parts, are much contracted.