

a free rounded projection (Pl. XXX. fig. 9). The upper surface was probably more perfectly convex in the living condition than it is now.

The Ascidiozooids modify the colour of the colony considerably, on account of their size and the transparency of the test. They are scattered irregularly over the colony, and lie at various angles to the upper surface. The anterior part of the body is of considerable breadth, but there is no external line of demarcation between the thorax and the abdomen.

The test is very compact, and is cartilaginous in consistence; it appears perfectly clear and homogeneous in sections. The test cells are much more numerous in some places than in others. Many of them are fusiform and very much elongated.

Some parts of the mantle are very strong, the musculature forming almost a continuous layer. The sphincter at the branchial aperture is strong.

The branchial sac is very opaque, and is in a lowly developed condition, the stigmata being small and the ciliated cells inconspicuous. The transverse vessels are provided with horizontal membranes (Pl. XXX. fig. 10, *h.m.*). The endostyle is larger and more conspicuous than usual. It occupies a considerable part of the ventral half of the thorax.

The tentacles are stout but not very long. There are about twenty, ten longer and ten shorter. The dorsal tubercle is rather large. The nerve ganglion, which is placed immediately behind the dorsal tubercle, is very large, and is nearly circular in outline.

The abdominal part of the body is relatively small, and the alimentary canal forms a short loop. The stomach has its wall folded longitudinally. The reproductive organs occupy the large post-abdomen. The vas deferens is very wide and is a conspicuous object in its entire length.

In some of the Ascidiozooids tailed larvæ were found. They are large, have a moderately elongated body, with very distinct pigmented sense-organs placed about two-thirds of the way back. The anterior end is rather broader than the posterior (Pl. XXX. fig. 11).

*Amaroucium recumbens*, n. sp. (Pl. XXIX. figs. 13-15).

*The Colony* is of slightly elongated form and is attached by the whole of one side to a fragment of shell. The upper one-third is wider than the lower part, and the top is rounded. The lower end is prolonged on one side to form a thin expansion attached to the shell. The surface is moderately smooth. The colour is light grey, becoming rather darker towards the lower end.

The length is 2.5 cm., the greatest breadth is 1.2 cm., the breadth of the lower narrower part is 6 mm., and the greatest thickness is 8 mm.

*The Ascidiozooids* are rather small, and are not numerous. They seem to be scattered irregularly over the upper part of the colony. The usual length is about 4 mm. and the greatest breadth is less than 1 mm. The thorax is relatively large, being