A second specimen in the collection differs somewhat in its proportions from the one figured (Pl. XXXVI. fig. 12) and described above. Its dimensions are as follows:—length, 2 cm.; breadth at the posterior end, 3.5 cm. Consequently, in this specimen the base is even broader than in the other, and exceeds the length of the body.

The test in this species is solid, and is in one of the specimens enormously developed, forming a large mass, in which the body of the individual is imbedded. The anteriorly placed apertures are both sessile, and have no visible lobes.

The branchial sac is strongly contracted and rather crumpled. The stigmata are shorter than, but similar in shape to, those of the other two species (Pl. XXXVI. fig. 13). The internal longitudinal bars are very fine, and are slightly undulated; they are attached to the summits of very large triangular flaps or connecting ducts, which hang from the wide transverse vessels (Pl. XXXVI. figs. 13 and 14).

The tentacles are simple and filiform, but I was unable, without injuring the single specimen examined, to determine their number, and the condition of the dorsal tubercle. These are points, however, of secondary importance, and the species is, I believe, sufficiently characterised without them.

The alimentary and genital viscera extend in this species for a considerable distance beyond the branchial sac, so as to form a distinct abdomen, which is almost as large as the thorax, and is connected with it by a narrow pedicle traversed by the œsophagus, the intestine, and the genital ducts.

Two specimens of *Ecteinascidia crassa* were found attached to the spicules of a large Hexactinellid sponge, dredged off Ki Island, at Station 192; September 26, 1874; lat. 5° 42′ S., long. 132° 25′ E.; depth, 129 fathoms; bottom, mud.

Ecteinascidia fusca, Herdman (Pl. XXXVI. figs. 7-11).

Ecteinascidia fusca, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1879-80, p. 723.

External Appearance.—The individuals of this species are united into a colony by a short thick irregular stolon. The shape of each individual is very elongated, some are rudely club-shaped. The anterior end is wide and truncated; the posterior half is narrower, contorted, and passes down into the stolon. The apertures are nearly terminal, both are placed upon the right side of the extremity; the branchial is near the middle, and the atrial near the dorsal edge.

The surface is smooth but uneven, especially at the posterior end, where knobs and processes are usually present. The colour is dark brown.

Length of the body, 4.7 cm.; breadth of the body, 1.5 cm.

The Test is cartilaginous, stiff, opaque, and thickish, especially in the posterior part, sometimes it is rather thin at the anterior end. Vessels are present.

The Mantle is thin; the muscular bands are distant, but well-marked, and are of a reddish-brown colour. The larger bundles run longitudinally.