

The largest of the imperfect fragments measures about 750 mm. in height and is 13 mm. in its widest diameter. In several cases the apices seem to have been browsed off and are in process of regrowth.

The structure of the axis very closely resembles that described by Kölliker as characteristic of his genus *Plexaurella*; being made up of alternate layers of horny and calcareous portions; the horny and calcareous portion of the largest specimen in the collection is slightly oval, and measures 5.5 by 4.5 mm. The coenenchyma is very thick in this specimen, measuring 3 mm.; the spicules are very uniform in size; the double stars vary from 0.08–0.04 to 0.1–0.05 mm.; while the unsymmetrical clubs have a range of between 0.08–0.03 and 0.1–0.3 mm.; occasionally a longer one, 0.12–0.04 mm., is seen.

*Habitat.*—Torres Strait; depth, 7 to 11 fathoms.

*Juncella barbadensis*, Duchassaing and Michelotti (?) (Pl. XXXIV. fig. 14).

*Juncella barbadensis*, Duch. and Mich., Mém. Corall. des Antilles, Suppl., p. 22, pl. v. fig. 5.

Two small fragments are in the collection, which may possibly be juvenile states of *Juncella barbadensis*, D. and M., or of *Juncella funiculina*, D. and M., but from the very brief description of these species by the authors, the absence of type specimens to refer to, and the very small amount of material at our disposal, it seems impossible to decide the point with any certainty.

The colonies measure 150 and 155 mm. in length. The polyps are arranged on them in four rows; they are retractile with very long peduncles (2.5 mm. in length), which bend in towards the stem in a manner reminding one of the figures of *Scirpearia mirabilis*, Cuv. The coenenchyma is thin and the spicules seem most closely related to those of the preceding species. The unsymmetrical clubs measure 0.1–0.4 mm.; across head 0.2 mm.; across stem 0.08–0.04; 0.06–0.04; 0.04–0.02 mm.; the double stellate forms 0.06–0.04; 0.06–0.02 mm.; the spindles 0.1–0.25; 0.06–0.2 mm.

In some respects this form resembles *Juncella flexilis*, Std., from Mauritius.

*Habitat.*—Station 23, off Sombrero Island; depth, 450 fathoms; bottom, Pteropod ooze.

*Juncella racemosa*, n. sp. (Pl. XXXIV. fig. 11).

Colony attached, branched; branches arising in the one plane. There are no quite perfect specimens in the collection, but the two most perfect ones measure 115 and 140 mm. in height, with a diameter at the base of 1.5 and 3 mm. respectively. In the smaller specimen all the branches, until the very summit, are given off from the right side of the main stem, which is curved; several of these branches are short and simple; the longest, which is itself branched, extends to a length of 75 mm.; all the branchlets