

Zooids ventral, lateral, and dorsal on all free surfaces of the rachis; all of one kind. Stalk with a small zone of papillæ at the upper end. Axis pretty strong, round. Calcareous corpuscles of different forms, needles on the cells and zooids, lenticular bodies in the stalk, cylindrical corpuscles with three alternating ridges on each end in the tentacles of the polyps.

1. *Stachyptilum macleari*, n. sp. (Pl. VII. figs. 24-26).

Feather a little longer than the stalk, uncoloured.

Polyp-cells in fourteen rows on each side, situated on the lateral and dorsal surfaces of the rachis, the middle rows longer, with four cells, the inferior and superior shorter, with three and even only two cells. All the rows oblique, and the dorsal cells a little smaller than the ventral. Cells about 2 mm. in length, with strong needles 0.56 mm. long and 0.037 to 0.043 mm. broad in their walls; these needles project more or less at the openings of the cells, and form here and there regular spines, 1, 2, or 3 in number.

Polyps with a strong band of calcareous corpuscles in the stem of each tentacle, which are represented in fig. 26, and measure 0.027 to 0.060 mm. in length, and 0.016 to 0.028 in breadth.

The zooids are small bodies of 0.28 to 0.34 mm. in diameter, each of which is protected at its lower side by a plate of strong needles of the same kind as those of the polyp-cells. Besides these the mouth of each zooid has at its lower side a projecting two-lobed lip, which might also be described as a divided short tentacle. These zooids cover every part of the rachis which is not beset with the polyps, with the exception only of a very small line on its ventral surface. The zooids go even further down than the polyp-cells, form below the last of them about four regular rows on each side, and are also present in this region on the dorsal and ventral surface of the rachis.

The stalk has at its uppermost part a zone of about 2 mm. in length, where it is covered on its dorsal aspect, and on both sides by a crowded mass of small cylindrical papillæ of 0.17 to 0.19 mm. in length. The middle part of the stalk is whitish and the end pointed. The end of the stem contains peculiar flat, oval, or biscuit-shaped calcareous corpuscles of the length of 0.054 to 0.64 mm.

Length of the feather,	42 mm.
Length of the stalk,	32
Breadth of the feather,	8
Breadth of the stalk,	3.5
Breadth of the ventral side of rachis,	3.8

Habitat.—One single specimen from Station 192, south-east of Ceram, on the west of New Guinea, lat. 5° 42' S., long. 132° 25' E. Depth, 129 fathoms. Mud. September 26, 1874.