

2. *Virgularia gracillima*, n. sp. (Pl. III. fig. 11).

A fragment of a *Virgularia* may be so named provisionally, as it seems to differ from all known species.

Pinnules very small, about 0·85 mm. high, and 1·1 mm. distant from each other.

Polyps four on each pinnule, without well-marked cells.

Rachis small, with a breadth of 0·48 to 0·51 mm. in the middle part, and of 0·62 in the region of the undeveloped pinnules.

Zooids.—(?)

Axis round, yellow, 0·42 mm., large in the lowest part of the rachis, with the typical well-developed radiating fibres. Length of the whole fragment 77·5 mm.

*Habitat*.—Station 167a, Queen Charlotte Sound, near Long Island, New Zealand. Depth, 10 fathoms. Mud. June 27, 1874.

*Scytalium*, Herkl.1. *Scytalium sarsi*, Herkl. (Pl. IV. figs. 14, 15).

Of this remarkable species, the habitat of which has been hitherto unknown, the Challenger got five more or less well-preserved specimens; these agree specifically with the only two specimens known, which are preserved in the Leyden Museum. The only remark I have to make is, that the colour of the polypidom, which depends upon calcareous corpuscles of an opaque red colour, varies very much. One specimen had the whole rachis uncoloured, and only the polyp-cells and stalk red. In a second the rachis was uncoloured below; the colour then began at the base of the pinnules on both sides, but more intensely on the ventral side; and on both faces of the rachis, more on the dorsal side; at length the whole rachis became red, with the exception of small patches here and there on the ventral border of the leaves.

The measurements of the three better preserved specimens are—

	A.	B.	C.
Length of the entire polypidom, . . . . .	343 mm.	400	324
Length of the stalk, . . . . .	?	52	48
Breadth of the stalk, . . . . .	3	1·7	3
Breadth of the rachis, . . . . .	2·7	1·3	1·0
Length of the base of the pinnules, . . . . .	6-8	4-5	4·2
Length of the ventral margin of the pinnules, . . . . .	6-8	4-5·5	4·0

*Habitat*.—Station 212, Philippines, lat. 6° 55' N., long. 122° 15' E. Depth, 10, 14, and 20 fathoms. Sand. January 30, 1875.

2. *Scytalium tentaculatum*, n. sp. (Pl. III. fig. 12, Pl. IV. fig. 13).

General appearance of *Scytalium sarsi*, in every part larger, less coloured, with a long simple tentacle at every polyp-cell.