

*Sertularia geniculata*, n. sp. (Pl. XXVIII. figs. 3, 3a, 3b).

*Trophosome*.—Stem monosiphonic, very slender and hyaline, irregularly branched, internodes very long, inclined to one another at a wide angle so as to give a geniculate form to the stem. Hydrothecæ alternate, borne close to the distal ends of the internodes, to which they are adnate by about one-third of their epicauline side, very deep, tumid towards the base, and thence gradually narrowing and becoming cylindrical towards the summit, which is occupied by the quadrilateral orifice.

*Gonosome*.—Gonangia obovate, with truncated summit, springing by a narrow proximal end from a point on the internode just below the base of a hydrotheca.

*Locality*.—Station 214, south of the Philippines; lat. 4° 33' N., long. 127° 6' E.; depth, 500 fathoms.

*Sertularia geniculata* is a very slender, perfectly hyaline form. The collection contains but a single example, which is less than an inch in height, but as the specimen is fragmentary and has lost its hydrorhizal extremity, no assertion can be made as to the height which the species may naturally attain. It is probable, however, that the perfect colony does not much exceed in size the portion which has been preserved.

The internodes, which are nearly twice as long as the very deep, narrow hydrothecæ, become wider towards their distal ends, thus adding to the knee-like form of the joints.

The hydrothecæ, for some distance below the orifice, are marked by parallel, transverse striæ, and the orifice itself is crowned by an exceedingly delicate, four-valved, membranous operculum, so delicate indeed that it was only in a few of the hydrothecæ that it was sufficiently well preserved to allow of demonstration.

Just within the orifice may be seen in optical section two broad, conical projections of the chitinous walls, one on the epicauline, and the other on the apocauline side of the hydrotheca. It is not improbable that in the living animal they give attachment to contractile bands employed in the closing of the operculum.

*Sertularia cylindritheca*, n. sp. (Pl. XXIX. figs. 1, 1a).

*Trophosome*.—Main stem monosiphonic, not divided into branches, but set with pinnately disposed, alternate ramuli. Hydrothecæ borne both by stem and pinnæ, one only on every internode, alternate, cylindrical, adnate by the base to the hydrocaulus, and free for nearly the whole of their epicauline side, margin with four low cusps.

*Gonosome* not present.

*Locality*.—Off Bahia.

*Sertularia cylindritheca*, though destitute of fasciculation, is a strong-growing, rather rigid form. The specimen in the collection is fragmentary, and though broken away