

The gonangia are very beautiful. The regularity and prominence of the annular ridges constitute a feature in the highest degree attractive. The distal end is prolonged into a short, wide neck, which terminates in a saucer-shaped summit, from the centre of which rises a narrow, cylindrical tube, which carries the relatively small orifice of the gonangium.

The annular ridges, which are very prominent on the apocauline or outer side of the gonangium, are nearly obsolete on the inner or epicauline side, a condition which is obviously connected with the close proximity of this side to the opposed surface of the stem.

*Sertularia gracilis* has considerable resemblance to *Sertularia tricuspidata*, Alder. It differs from it in the absence of annulation at the distal side of every hydrotheca, in the hydrothecæ having only two marginal cusps, and in the more elongated gonangia.

*Sertularia annulata*, n. sp. (Pl. XXIV. figs. 2, 2a).

*Trophosome*.—Stem fascicled towards the base, becoming monosiphonic distally, irregularly or subpinnately branched, set with pinnately disposed, alternate ramuli, stem and ramuli divided into short internodes, every internode carrying a hydrotheca. Hydrothecæ alternate, nearly cylindrical, adnate to the internode for somewhat more than half their height, then becoming free and divergent, distinctly annulated for some distance from the orifice, margin of orifice with four short, broad cusps.

*Gonosome* not present.

*Locality*.—Station 163B, off Port Jackson, Australia; depth, 35 fathoms.

*Sertularia annulata* is a strong-growing form. The main stem and its principal branches are stout, and fascicled towards the proximal ends, but become monosiphonic distally, and are regularly set with rather long, alternate, equidistant, monosiphonic pinnae. The annulation of the hydrothecæ is well marked, and extends from the orifice about halfway towards the base.

*Sertularia leiocarpa*, n. sp. (Pl. XXV. figs. 1, 1a).

*Trophosome*.—Hydrocaulus monosiphonic, irregularly branched, geniculated, every internode increasing in thickness from its proximal to its distal end. Hydrothecæ alternate, springing from the salient angles of the geniculations, distant, deep, tubular, narrowing towards the summit, adnate to the internode for about one-third of their height, then diverging at a wide angle, and terminating in a subquadrate orifice with four minute cusps.