

obvious character. They are strictly alternate; their orifice is perfectly circular and destitute of serration, and it thus presents a character which is exceptional among the *Sertulariæ* with alternate hydrothecæ. Here and there a well-marked transverse joint occurs just above the base of a hydrotheca, but this is found at distant and uncertain intervals, and elsewhere the joints are nearly or quite obliterated.

Immediately below the base of every hydrotheca are two oval spaces in which the chitinous periderm is very thin and transparent. They occur one on each side of the hydrotheca, and have the appearance of apertures in the perisarc. It is from these spaces that the gonangia take their origin. The greater number, however, are found with no gonangia attached to them; and as they are quite constant and occur on both sides of the hydrothecæ, we cannot regard them as indications of the points from which gonangia had already fallen. Similar transparent aperture-like spaces are by no means unusual among the Sertularian Hydroids. I am not able to assign to them their real significance.

The gonangia constitute a very striking character in the species. They are pyriform vesicles, thickly covered with long blunt spine-like outgrowths of their walls, these are hollow and open into the cavity of the gonangium.

*Sertularia catena*, n. sp. (Pl. XXVIII. figs. 2, 2a).

*Trophosome*.—Hydrocaulus fascicled, becoming monosiphonic distally; internodes inclined to one another at a very decided angle, gradually widening from their proximal towards their distal ends, where each carries a hydrotheca. Hydrothecæ alternate, large, deep, cylindrical, with four low marginal cusps, every hydrotheca springing by its base from a point near the distal end of an internode, and free for somewhat more than two-thirds of its course.

*Gonosome*.—Gonangia springing each from an internode at a short distance below the base of a hydrotheca, elongate ovate, destitute of annulation, with a small terminal, bicusped orifice.

*Locality*.—Station 24, off Culebra Island, West Indies; depth, 390 fathoms.

*Sertularia catena*, though a rather strong-growing form, does not appear to attain a large size, the specimen in the collection measuring about two inches in height. Its large, cylindrical hydrothecæ, except at the base where they rest on the supporting internode, and for a short extent of the epicauline side, are entirely free from the hydrocaulus. The internodes are clavate in form, and each springs by its narrow end from the wide end of the internode which precedes it, and to which it is inclined by a well-pronounced angle, thus giving to the hydrocaulus a decidedly geniculate habit, which is rendered still more obvious by the direction of the hydrothecæ, whose axis is always in direct continuation with that of the supporting internode.