

internodes of various lengths. Hydrothecæ borne both by stem and pinnæ, deep, tumid below, slightly narrowing upwards, those of each pair adnate to one another for nearly two-thirds of the height of their opposed sides, then diverging and terminating in a circular orifice which is directed laterally, and is surrounded by a thin, membranous, expanded lip.

Gonosome.—Gonangia fusiform, contracting below into a very short, narrow peduncle, and terminating distally in an even circular orifice.

Locality.—Station 163A, off Twofold Bay, Australia; depth, 150 fathoms.

Hypopyxis labrosa attains a height of about four inches. The pinnæ are given off at a moderate distance from one another along nearly the whole length of the stem. Each is supported on a short cladophore which springs from the side of the stem between two pairs of hydrothecæ. Every pinna commences with a short proximal segment which is destitute of hydrothecæ, and is united to the remainder of the pinna by a very oblique splice-like joint. The orifice of the hydrotheca is surrounded by a membranous expanded lip. This is very thin, and would seem to be easily lacerated and destroyed, for it was only occasionally preserved in a sufficiently perfect state in the specimens examined. The joints which separate the internodes of the pinnæ from one another are very oblique and splice-like, and the number of pairs of hydrothecæ borne by each internode varies from five to seven, or perhaps more. The hydrothecæ are all brought to one side (the front) of the internode, the opposite side remaining uncovered.

The cup-like appendages of the base of the hydrothecæ have, when viewed in front, the form of a wide bell, but when viewed laterally are seen to be compressed. They measure about one-sixth of the height of the hydrotheca. Each hydrotheca carries two, one on the front of its base near its junction with the opposite hydrotheca, the other on a point of its base which lies diametrically opposite to this.

The gonangia spring from the front of the pinna in the intervals between the pairs of hydrothecæ, and correspond in height to about three pairs of hydrothecæ.

Staurotheca, n. gen.

Name from *σταυρός*, a cross, and *θήκη*, a receptacle, in allusion to the decussation of the hydrothecæ.

Generic Character. *Trophosome*.—Hydrocaulus carrying opposite hydrothecæ, which are arranged in decussating pairs.

Gonosome.—Gonangia simple capsules springing from the hydrocaulus, and destitute of marsupium.

The genus *Staurotheca* has close affinities with *Sertularia*, from which, however, it is distinguished by its decussating hydrothecæ. These are so disposed that the