

The genus *Aulactinium* differs from all the other Aulacanthida in the complete absence of the characteristic fine tangential needles, which constitute in the latter an arachnoidal veil or mantle around the spherical calymma. We accordingly divide the whole family into two subfamilies, the Aulactinida with a naked calymma, and the Aulagraphida with a veil of tangential needles. The radial tubes possess in the few species of *Aulactinium* observed a very simple shape, as in the closely allied *Aulacantha*.

1. *Aulactinium actinastrum*, n. sp. (Pl. 101, figs. 6, 7).

Radial tubes slenderly spindle-shaped, slightly curved, gradually tapering from the middle towards both ends. The proximal two-thirds of the tubes enclosed in the calymma are smooth; the distal freely prominent third is armed with six to eight equidistant verticils of small conical teeth (ten to fifteen in each verticil).

Dimensions.—Length of the tubes 0·5 to 1·5, breadth 0·02.

Habitat.—South Pacific, Station 289, depth 2550 fathoms.

2. *Aulactinium actinelium*, n. sp. (Pl. 101, fig. 8).

Radial tubes cylindrical, straight, slightly tapering towards both ends. Proximal two-thirds smooth, the distal third studded with numerous small recurved thorns.

Dimensions.—Length of the tubes 0·6 to 0·9, breadth 0·02.

Habitat.—South Pacific, Station 293, depth 2025 fathoms.

3. *Aulactinium actinosphærium*, n. sp.

Radial tubes cylindrical, straight, smooth, of nearly equal breadth throughout their whole length, without thorns and spathillæ, pointed at both ends.

Dimensions.—Length of the tubes 1·6 to 2·2, breadth 0·02 to 0·03.

Habitat.—Antarctic Sea, Station 157, depth 1950 fathoms.

Subfamily 2. AULOGRAPHIDA, Haeckel.

Definition.—Aulacanthida with an external veil of interwoven, very numerous and thin, hollow, tangential needles, entirely covering the surface of the calymma.

Genus 666. *Aulacantha*,¹ Haeckel, 1860, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 799.

Definition.—Aulacanthida with a veil of tangential needles, and with simple radial tubes, which bear neither lateral nor terminal branches.

¹ *Aulacantha* = Tubular spine; αὐλός, ἀκανθή.