

The genus *Aulacantha*, hitherto the only representative of this family, was founded by me in 1860 for the cosmopolitan *Aulacantha scolymantha*, the most common and most widely distributed of all the members of the family. It is the simplest form of the Aulographida, or of those Aulacanthida in which the spherical surface of the calymma is densely covered with interwoven tangential needles. The large radial tubes of *Aulacantha* possess a very simple shape, as in the preceding *Aulactinium*, and have neither lateral nor terminal branches.

1. *Aulacantha scolymantha*, Haeckel.

Aulacantha scolymantha, Haeckel, 1862, Monogr. d. Radiol., p. 263, Taf. ii. figs. 1, 2, Taf. iv. figs. 1-5.

Aulacantha scolymantha, R. Hertwig, 1879, Organism. d. Radiol., p. 88, Taf. ix. fig. 3, Taf. x. figs. 7-10.

Radial tubes cylindrical, straight, of nearly equal breadth throughout their whole length, somewhat inflated on the proximal basal end, smooth throughout the greater part of their length, but in the distal third dentate, with numerous (ten to forty) small pointed teeth, which are curved outwards, and shorter than the thickness of the tube.

Dimensions.—Length of the tubes 0.5 to 2.0, breadth 0.01 to 0.02.

Habitat.—Cosmopolitan; Mediterranean, Atlantic, Indian, Pacific; at many Stations; surface and at various depths; the most common of all Aulacanthida.

2. *Aulacantha tubulosa*, n. sp.

Radial tubes cylindrical or nearly spindle-shaped, straight, gradually tapering towards the two pointed ends, twice as broad in the middle third as in the outer and inner third, smooth in the inner half, dentate in the outer half, with very numerous (one hundred to two hundred) short conical teeth, which are scarcely one-fourth as large as the greatest breadth of the tube.

Dimensions.—Length of the tubes 0.4 to 0.5, breadth in the middle part 0.02 to 0.03.

Habitat.—Central Pacific, Stations 271 to 274, surface.

3. *Aulacantha spinosa*, n. sp. (Pl. 105, fig. 4).

Radial tubes cylindrical, straight, of equal breadth throughout their whole length, rounded on the proximal base, smooth in the inner proximal half, dentate or spinescent in the outer distal half, with numerous (fifty to eighty) slender conical teeth, which are curved forwards, increasing in size towards the distal end, and somewhat longer than the breadth of the tube.

Dimensions.—Length of the tubes 0.8 to 1.2, breadth 0.015 to 0.02.

Habitat.—North Pacific, Stations 241 to 253, surface.