

The genus *Aulodendron* differs from the other Aulacanthida in the possession of lateral and terminal branches, which are irregularly scattered on the radial tubes and not arranged in regular verticils. The branches are usually short, simple or forked, rarely longer and again irregularly ramified.

1. *Aulodendron antarcticum*, n. sp. (Pl. 105, fig. 5).

Radial tubes cylindrical, more or less curved, in the inner proximal half smooth and half as broad as in the outer distal half, which is studded with irregularly curved, partly branched spines, arising usually perpendicularly from the tube. The majority of the spines usually simple, the minority forked, with two to four short branches, the largest spines scarcely twice as long as the breadth of the tube.

*Dimensions*.—Length of the tubes 0·7 to 0·9, breadth 0·01 to 0·02; length of the branches 0·02 to 0·04.

*Habitat*.—Antarctic Ocean (Kerguelen), Stations 156 to 159, surface.

2. *Aulodendron pacificum*, n. sp. (Pl. 105, fig. 2).

Radial tubes cylindrical, slightly curved, in the proximal half smooth, in the distal half with scattered lateral branches, which are partly simple, partly forked, about twice as long as the breadth of the tube, and bear at the distal end a spathilla with five to six recurved teeth. The distal end of the tubes bears a spherical knob, which is separated by a deep stricture and armed with a bunch of six to twelve strong conical teeth.

*Dimensions*.—Length of the tubes 1 to 1·2, breadth 0·015 to 0·02; branches 0·03 to 0·04.

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

3. *Aulodendron australe*, n. sp. (Pl. 105, fig. 3).

Radial tubes cylindrical, straight, thin, smooth in the proximal half, armed with numerous lateral branches in the distal half; the majority of the branches forked, about as long as the breadth of the tube, with two or three short ramules, each of which bears a spinulate terminal knob. The distal end of the tubes also forked, with two or three divergent branches.

*Dimensions*.—Length of the tubes 1·2 to 1·6, breadth 0·01 to 0·012.

*Habitat*.—South Pacific, Station 289; New Zealand, Station 169, surface.

4. *Aulodendron atlanticum*, n. sp.

Radial tubes cylindrical, tapering gradually towards the two ends; smooth and straight in the proximal half, irregularly curved and branched in the distal half, with ten to twenty (rarely more) branches, which arise almost perpendicularly from the tube. The proximal branches are from four to eight times as long as the greatest breadth of the tube, forked, with two or three short ramules;