

1. *Actinastrum legitimum*, n. sp.

All thirty-two radial spines of equal size and similar form, cylindrical, conical at the distal end, at the central base pyramidal. Central capsule pellucid, colourless.

*Dimensions*.—Length of the radial spines 0·3, breadth 0·004.

*Habitat*.—South Pacific, Station 288, surface.

2. *Actinastrum pentazonium*, n. sp.

All thirty-two radial spines of equal size and similar form, compressed, two-edged, gradually becoming broader and thinner from the pyramidal central base towards the truncated distal end. Central capsule dark, opaque. (Compare the similar *Chiastolus amphicopium*, Pl. 129, fig. 3.)

*Dimensions*.—Length of the radial spines 0·2, breadth at the base 0·005, at the distal end 0·02.

*Habitat*.—South Pacific (west coast of Patagonia), Station 302, surface.

## Family XXXIV. LITHOLOPHIDA, Haeckel.

*Litholophida*, Haeckel, 1862, Monogr. d. Radiol., p. 401.

*Definition*.—ACANTHARIA with a variable number of simple radial spines radiating within a conical space (or within the quadrant of a sphere) from one common central point, which is the apex of the conical central capsule. No lattice-shell.

The family Litholophida, represented only by a single genus, *Litholophus*, differs from all other ACANTHARIA in the remarkable fact that the common point, from which the radial spines arise, is not the geometrical central point of the whole body, but is quite excentric in position, the apex of the conical or pyramidal central capsule. Therefore the spines form together a kind of brush or broom.

When I founded the family Litholophida in my Monograph (1862, p. 401) I knew only a single species, *Litholophus rhipidium*, observed very frequently in Messina. Another species, *Litholophus ligurinus*, was afterwards (1864) found by me at Nice. Six other species were detected in the preparations of the Challenger, some of them very frequent. All these eight species of *Litholophus* are very nearly allied, and exhibit only slight differences in the form and number of the radial spines; their mode of excentric connection and the structure of the peculiar soft body is everywhere the same.

The radial spines in all observed Litholophida possess the form of the genus *Acanthonia*, i.e., they are quite simple, four-sided prismatic or quadrangular, with square transverse section; their four edges are sometimes smooth, at other times elegantly denticulate, commonly more or less prominent or wing-shaped. In the greater number of species they are very long and of nearly equal breadth, prismatic; in some species they are more pyramidal, thinned towards the distal end; the latter