

The genus *Acanthochiasma*, with a small number of common species, comprises the Chiastolida with ten diametral spines, which are loosely crossed in the centre of the body. I could distinguish only four species, two of which are cosmopolitan and very widely distributed. In all four species the diametral spines are quite simple, cylindrical; only in one species distinguished by a spiral winding or torsion in the middle part, where they are crossed one to another. We derive *Acanthochiasma* from *Acanthometron* by conrescence of every two spines opposite in one axis of the body.

1. *Acanthochiasma krohnii*, Haeckel.

Acanthochiasma krohnii, Haeckel, 1862, Monogr. d. Radiol., p. 403, Taf. xix. fig. 7.
Acanthochiasma krohnii, R. Hertwig, 1879, Organismus d. Radiol., Taf. ii. fig. 6.

Spines needle-shaped, cylindrical, very thin and long, of equal breadth in their whole length, distinguished by a high degree of elasticity. Central capsule colourless or yellowish-white, transparent. Granules of the sarcode colourless.

Dimensions.—Length of the spines 0·5 to 1·0, breadth 0·001 to 0·002.

Habitat.—Cosmopolitan; Mediterranean, Atlantic, Indian, Pacific, very common.

2. *Acanthochiasma rubescens*, Krohn.

Acanthochiasma rubescens, Haeckel, 1862, Monogr. d. Radiol., p. 403.

Spines cylindrical, of equal breadth in their whole length, not very elastic, pointed at the two ends. Central capsule intransparent, reddish, with violin-shaped concretions. Granules of the sarcode red coloured.

Dimensions.—Length of the spines 0·2 to 0·6, breadth 0·004 to 0·006.

Habitat.—North Atlantic, Madeira, Krohn; Lanzerote, Haeckel.

3. *Acanthochiasma fusiforme*, Haeckel.

Acanthochiasma fusiforme, Haeckel, 1862, Monogr. d. Radiol., p. 404, Taf. xix. fig. 8.

Spines spindle-shaped, from the thicker central part thinned towards the two thin conical ends, perfectly straight and smooth, rigid, inelastic. Central capsule non-transparent, brown.

Dimensions.—Length of the spines 0·3 to 0·5, breadth in the central part 0·006 to 0·009.

Habitat.—Cosmopolitan; Mediterranean, Atlantic, Pacific.

4. *Acanthochiasma spirale*, n. sp.

Spines spindle-shaped, tapering from the thicker central part towards the two thin conical ends, rigid, inelastic; their central part is spirally convoluted in a very peculiar cochlea-like manner, as in *Chiastolus amphicopium* (Pl. 129, figs. 3a, 3b). The ten spines are propped one upon another by the central screw. Central capsule dark, opaque.

Dimensions.—Length of the spines 0·2 to 0·3, breadth of the central spiral part 0·01.

Habitat.—Central Pacific, Station 266, surface.