

=1:3:9. On the surface about twenty three-sided pyramidal main spines, as long as the radius, and numerous (forty to sixty) by-spines of half the length. (Compare with this species *Actinomma trinacrium*, with which it is connected by transitional forms.)

Dimensions.—Diameter of the outer shell 0.09, middle 0.03, inner 0.01; cortical pores 0.008 to 0.012, bars 0.004; length of the spines 0.02 to 0.05, basal breadth 0.01.

Habitat.—Mediterranean (Messina).

7. *Echinomma toxopneustes*, n. sp. (Pl. 29, fig. 1).

Cortical shell thin walled, with large, irregular, roundish, polygonally framed pores, twice to four times as broad as the crested bars. Both medullary shells of similar structure. Radial proportion of the three spheres = 1:2.5:6. Numerous (thirty to fifty or more) thin radial beams connecting them, prolonged outside into strong three-sided pyramidal spines, shorter than the radius; each of the three wings with two teeth. Between these, numerous smaller angular by-spines of one-quarter to one-half the length.

Dimensions.—Diameter of the outer shell 0.12, middle 0.05, inner 0.02; cortical pores 0.01 to 0.03, bars 0.008; length of the main spines 0.05, basal breadth 0.01.

Habitat.—South-east Pacific (South of Juan Fernandez), Station 300, surface.

Genus 103. *Pityomma*,¹ Haeckel, 1881, Prodrömus, p. 453.

Definition.—Astrosphærida with three concentric lattice-shells and numerous branched radial spines.

The genus *Pityomma* differs from its ancestral form, *Actinomma*, in the ramification of its radial spines, and exhibits therefore the same relation to it that *Elatomma*, among the Haliommida, bears to *Haliomma*.

1. *Pityomma scoparium*, n. sp.

Cortical shell thick walled, connected with both concentric medullary shells by twenty thin radial beams, which are prolonged outside into twenty large cylindrical radial spines; these are somewhat shorter than the shell radius, simple in the proximal inner half, irregularly branched in the outer half. All three spheres with regular, circular pores, twice to three times as broad as the bars; radial proportion = 1:2:6. (Similar to *Cladococcus scoparius*, Pl. 27, fig. 2, and *Elatomma scoparium*, but differs from both in the double medullary shell)

Dimensions.—Diameter of the outer shell 0.15, middle 0.05, inner 0.025; length of the spines 0.1.

Habitat.—Central Pacific, Station 273, surface.

¹ *Pityomma* = Pine-eye; πῖτυς, ὄμμα.