

Subgenus 2. *Lithatractylis*, Haeckel.

*Definition*.—Network of the outer shell regular, with meshes of equal size and similar form; surface thorny or papillose, covered with small conical spines or tubercles.

6. *Lithatractus echiniscus*, n. sp.

Outer shell thorny, thin walled, with regular network; meshes circular, with hexagonal frame, four to five times as broad as the thin bars; eighteen to twenty on the half equator. From every corner between the three meshes, where three hexagons unite, starts one short, straight, triangular thorn (as in *Ellipsoxiphus elegans*, Pl. 14, fig. 7). Proportion of the major axis of the ellipsoid to the minor = 4 : 3. Minor axis twice the diameter of the inner spherical shell, the pores of which are half as broad, circular. Polar spines three-sided pyramidal, about as long as the minor axis, as broad at the base as one hexagonal frame.

*Dimensions*.—Longer axis of the cortical shell 0.08, shorter axis = 0.06; pores 0.004, bars 0.001; length of the polar spines 0.05, basal thickness 0.005; diameter of the inner shell 0.03.

*Habitat*.—South Atlantic, off Tristan da Cunha, Station 334, surface.

7. *Lithatractus carduelis*, n. sp.

Outer shell thin walled, thorny, with regular network; meshes circular, simple, four to six times as broad as the thin bars; ten to twelve on the half equator. Between every three meshes is one short conical spine. Proportion of the major axis to the minor = 6 : 5. Minor axis equals three times the diameter of the inner spherical shell. Polar spines conical, thick, half as long as the major axis, thicker at the base than one pore. (This species differs from *Stylatractus carduus* only by the simple medullary shell.)

*Dimensions*.—Longer axis of the ellipsoid 0.12 to 0.16, shorter axis 0.1 to 0.14; pores 0.02 to 0.03, bars 0.005; length of the polar spines 0.05 to 0.10, basal breadth 0.04; diameter of the medullary shell 0.03 to 0.04.

*Habitat*.—Central area of the Pacific, Stations 268 to 274, depth 2350 to 2900 fathoms; also fossil in the rocks of Barbados.

8. *Lithatractus cirsium*, n. sp.

Outer shell thin walled, thorny, with regular network; pores circular, simple, small, two to three times as broad as the thin bars; eighteen to twenty-four on the half equator. Proportion of the major axis to the minor = 4 : 3. Inner shell ellipsoidal, half as large as the outer. Polar spines cylindrical, blunt, thin, very variable in length (one-fourth to three-fourths of the major axis, not thicker than a mesh).

*Dimensions*.—Longer axis of the ellipsoid 0.07 to 0.09, shorter axis 0.05 to 0.07; pores 0.005 to 0.006, bars 0.002; length of the polar spines 0.02 to 0.06, basal breadth 0.004; length of the inner shell 0.04, breadth 0.03.

*Habitat*.—North Pacific, Station 244, surface.