Subfamily 1. LITHOCYCLIDA, Haeckel, 1881, Prodromus, p. 458.

Definition.—Coccodiscida with simple circular disk, without any radial appendages of the margin (either solid radial spines or chambered arms).

Genus 196. Lithocyclia, Ehrenberg, 1847, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 54.

Definition.—Coccodiscida with simple circular margin of the disk, without radial appendages. Medullary shell simple.

The genus Lithocyclia is the most simple form of Coccodiscida, and represents the common ancestral form of this family, from which all other genera of it can be derived. The lenticular, biconvex disk is quite simple, composed of a variable number of concentric, circular, chambered rings, which are pierced by radial beams, and which surround the circular lenticular cortical shell or "phacoid shell." The latter contains a simple spherical medullary shell in its centre, and is connected with it by radial beams. The margin of the disk is circular, quite simple, without radial spines or chambered arms.

1. Lithocyclia cingulata, n. sp.

Phacoid shell (or lenticular porous cortical shell) three times as broad as the spherical enclosed medullary shell, surrounded by one single chambered girdle or ring (with about forty chambers of equal size, separated by radial beams). Margin of the disk circular, smooth. Pores of the convex covering plates regular, circular; eight on the radius of the phacoid shell, two on the breadth of the ring.

Dimensions.—Diameter of the disk (with one ring) 0.13, of the phacoid shell 0.1, of the medullary shell 0.033.

Habitat.—Western Tropical Pacific, Station 225, depth 4475 fathoms.

2. Lithocyclia lenticula, n. sp. (Pl. 36, figs. 3, 4).

Phacoid shell two and a half times as broad as the enclosed medullary shell, surrounded by three chambered girdles of equal size, which are divided by piercing radial beams each into about fifty chambers. Margin of the disk thorny. Pores irregular, roundish; seven on the radius of the phacoid shell, two on the breadth of each girdle.

Dimensions.—Diameter of the disk (with three girdles) 0.2, of the phacoid shell 0.11, of the medullary shell 0.045.

Habitat.—Pacific, central area, Station 268, depth 2900 fathoms.

1 Lithocyclia = Circular stone ; λιθος, κύκλιον.