

than the frontal spine. Eight tropical spines different, the four anterior (*b1, b4, d1, d4*) smaller, with longer horns; the four posterior (*b2, b3, d2, d3*) broader, with shorter horns; the anterior horn of each tropical spine is longer than the posterior. Eight polar spines rudimentary, simple, very short.

Dimensions.—Length of the equatorial spine-cross 0.6, breadth 0.4.

Habitat.—Central Pacific, Station 271, surface.

Subfamily 2. LITHOPTERIDA, Haeckel.

Definition.—Quadrilonchida with two opposite transverse apophyses either on all twenty spines or only on a part of them.

Genus 338. *Quadrilonche*,¹ n. gen.

Definition.—Quadrilonchida with two simple opposite apophyses either on each radial spine or only on a part of the twenty spines.

The genus *Quadrilonche* is the ancestral form of the Lithopterida, or of those Quadrilonchida which bear two opposite apophyses or transverse processes. In *Quadrilonche* these apophyses are simple, whilst they are branched in *Xiphoptera* and fenestrated in *Lithoptera*. Each of these three genera may be divided into three subgenera; in the first only the four equatorial spines are provided with apophyses, in the second twelve spines (four equatorial and eight tropical), in the third subgenus all twenty spines.

Subgenus 1. *Quadriloncharium*, Haeckel.

Definition.—Four large equatorial spines provided with transverse apophyses; sixteen other smaller spines simple, without apophyses.

1. *Quadrilonche tetrastaura*, n. sp.

Four equatorial spines very large, compressed, two-edged, each crossed in the distal third by two opposite simple apophyses. Sixteen other spines also compressed, linear, somewhat shorter than the former and only half as broad, without apophyses.

Dimensions.—Length of the four major spines 0.12, breadth 0.02; length of the sixteen minor spines 0.08, breadth 0.01.

Habitat.—Central Pacific, Station 266, surface.

¹ *Quadrilonche* = Square-spear.