

Genus 366. *Phractopelta*,¹ Haeckel, 1881, Prodrömus, p. 468.

Definition.—Phractopeltida with twenty simple radial spines, bearing no free apophyses outside the outer shell.

The genus *Phractopelta* is the most simple form among the Phractopeltida, and may be regarded as the common ancestral form of this family. All twenty spines are of nearly equal form and size, and bear no free apophyses on their free part, outside the two concentric shells. *Phractopelta* may be derived from *Orophaspis* by further development of the free apophyses, which by union of their branches form a second outer shell around the primary shell of that Dorataspid.

Subgenus 1. *Phractopeltaris*, Haeckel.

Definition.—Outer shell composed of twenty separated plates, the sutures of their meeting condyles not being grown together.

1. *Phractopelta dorataspis*, n. sp. (Pl. 133, fig. 1).

Outer shell composed of twenty plates, the meeting condyles of which are separated by permanent sutures. Each plate commonly with two elliptical aspidal pores, which are two to three times as broad as the irregular sutural pores. Radial spines (in the outer free part) compressed, linear, twice as long as the diameter of the shell.

Dimensions.—Diameter of the outer shell 0.11, of the inner 0.05.

Habitat.—North Pacific (off Japan), Station 239, surface.

2. *Phractopelta dyadopora*, n. sp.

Outer shell composed of twenty plates, the meeting condyles of which are separated by permanent sutures. Each plate commonly with two kidney-shaped aspidal pores, which are three to four times as broad as the irregular sutural pores. Radial spines conical, about as long as the radius of the shell.

Dimensions.—Diameter of the outer shell 0.08, of the inner 0.04.

Habitat.—North Pacific, Station 256, surface.

3. *Phractopelta diporaspis*, n. sp.

Outer shell composed of twenty plates, the meeting condyles of which are separated by permanent sutures. Each plate commonly with two quadrangular aspidal pores, which are four to five times

¹ *Phractopelta* = Hedging shield ; φρακτοβ, πέλτη.