

Radial spines strongly compressed, two-edged; outer half shorter than the inner. By-spines undulate, half as long as the radius.

Dimensions.—Diameter of the shell 0.12, of the parmal pores 0.02 to 0.03, of the sutural pores 0.003 to 0.004.

Habitat.—South Pacific, Station 287, surface.

Subgenus 2. *Diporaspidium*, Haeckel.

Definition.—Shell with fifty-four sutures, four polar plates on each pole of the main axis different in pairs: two major hexagonal meeting in a polar ("geometrical") suture, two minor pentagonal, not meeting together (separated by that suture). Shell therefore composed of eight hexagonal plates (four equatorial and four polar) and of twelve hexagonal plates (eight tropical and four polar).

3. *Diporaspis zygopora*, n. sp.

Shell with fifty-four sutures and fifty-four circular sutural pores: with eight hexagonal and twelve pentagonal plates. Both aspal pores of each plate elliptical, three times as broad as the sutural pores. Radial spines compressed, two-edged; outer half shorter than the inner. By-spines very numerous, simple, one-third as long as the radius, forming coronels or elegant circles around the pores (a small coronel around each sutural pore, a large one around each couple of aspal pores).

This typical species is nearly allied to *Dorataspis typica* (Pl. 138, fig. 4), and may be derived from it by development of the coronels of by-spines.

Dimensions.—Diameter of the shell 0.16, aspal pores 0.03, sutural pores 0.01.

Habitat.—Central Pacific, Station 271, surface.

Genus 353. *Orophaspis*,¹ Haeckel, 1881, Prodrömus, p. 468.

Definition.—*Dorataspida* with twenty plates, which are perforated by forty aspal pores (two pores in each plate). Surface of the shell without combs, dimples, and by-spines. Each radial spine bears outside of the shell two opposite free apophyses, which are either simple or branched.

The genus *Orophaspis* differs not only from its ancestral form, *Dorataspis*, but from all other *Dorataspida* in the development of peculiar free apophyses on the radial spines, outside the shell. These apophyses, two being opposite on each spine, appear as a repetition of the primary apophyses of *Phractaspis*; they are either simple or branched, and sometimes the branches are united together, forming an outer free shield with two or four pores. These outer plates represent the beginning of a second outer shell and form the transition to *Phractopelta*, the ancestral form of the *Phractopeltida*.

¹ *Orophaspis* = Roof shield; ὄροφος, ἀσπίς.