

The genus *Tristephanium*, and the three following genera derived from it, represent together the interesting subfamily of Trissocyclida (Prodromus, 1881, p. 446). These differ from all other Coronida in the possession of three complete rings, perpendicular to one another. The first of these is the vertical sagittal ring, the second the vertical frontal ring, and the third the horizontal basal ring. Since these three rings lie in the three dimensive planes, they are perpendicular to one another; and between them remain eight large open gates. Originally the four upper or lateral gates (corresponding to those of *ZygoStephanus*) are much larger, the four lower or basal gates (corresponding to those of *Semantrum*) much smaller; but afterwards the latter may reach the size of the former, so that the basal ring becomes equatorial (in *Trissocircus* and *Trissocyclus*). The common ancestral form of the Trissocyclida (*Tristephanium*) may be derived directly either from *Semantrum* (by complete development of the frontal ring) or from *EuCoronis* (by complete development of four basal gates).

Subgenus 1. *Triostephus*, Haeckel, 1881, Prodromus, p. 445.

*Definition*.—Sagittal and frontal ring of different size and form.

1. *Tristephanium dimensivum*, n. sp. (Pl. 93, fig. 9).

Sagittal ring ovate, with a large thorny apical horn, smaller than the two other rings. Frontal ring violin-shaped, with a deep sagittal constriction. Basal ring also violin-shaped, in the sagittal axis constricted. Its four gates (two jugular and two cardinal) of nearly equal size. All three rings angular, armed with scattered, stout, thorny spines, which are larger in the basal half.

*Dimensions*.—Height of the frontal ring 0.08, breadth 0.12.

*Habitat*.—North Pacific, Station 241, depth 2300 fathoms.

2. *Tristephanium octopyle*, n. sp. (Pl. 93, fig. 8).

Sagittal ring ovate, nearly smooth, smaller than the two other rings. Frontal ring kidney-shaped, with a deep basal constriction. Basal ring violin-shaped. The jugular gates about half as large as the cardinal gates. Rods of the rings cylindrical, with few scattered thorns.

*Dimensions*.—Height of the frontal ring 0.09, breadth 0.14.

*Habitat*.—Central Pacific, Station 271, depth 2425 fathoms.

3. *Tristephanium hertwigii*, Haeckel.

*Acanthodesmia hertwigii*, Bütschli, 1882, Zeitschr. f. wiss. Zool., vol. xxxvi. pp. 499, 539, Taf. xxxii. figs. 9a-9c.

Sagittal ring ovate or nearly semicircular; its dorsal rod straight, smooth (fig. 9c, a), its ventral rod (b) curved, thorny. Frontal ring much larger, thorny, violin-shaped, with a slight sagittal con-