

zone, a small ill-defined pit exists. The poriferous zone is narrow, the pairs of pores separated by high ridges are somewhat wider in the central part. The median ambulacral area is wider than the poriferous zone. The ambulacral plates are separated from the poriferous zone by a vertical row of distinct secondary granules. The lower part of the ambulacral plates is occupied by minute granules, leaving distinct bare spaces forming small rectangular pits, which alternate for the whole height of the ambulacral area (Pl. I. fig. 13). The larger granules carry short, slender, sharp papillæ, while the miliary granules carry diminutive papillæ scarcely equal in length to the height of the ambulacral plates. The ocular plates are heart shaped. The genital plates are heptagonal, separated by large pointed plates from the anal system, which extends to the ocular plates. The genital openings are large, situated nearer the centre of the plates than the edge. The anal system is covered by a single row of ten larger plates adjoining the genital plates, with smaller irregularly-shaped plates in the centre. The whole abactinal system is closely covered with indistinct tubercles carrying short sharp papillæ, somewhat largest around the anal opening. The outer part of the coronal plates not occupied by the scrobicular tubercles is closely packed with minute granules carrying diminutive papillæ similar to those of the median ambulacral space. The colour of the spines of alcoholic specimens is white; the papillæ round the base of the primaries are light reddish-yellow. This species is remarkable for its small actinal opening.

In a specimen measuring 27 mm. in height, in which there are seven primary tubercles, the diameter of the test is 26 mm.; the diameter of the actinal system, 11 mm.; and that of the abactinal system, 13 mm. The length of the longest curved primary spine is 56 mm.

The ornamentation of the sutures of this species, extending over the greater part of the coronal plates, shows the affinities of *Goniocidaris* with *Temnocidaris* of Cotteau (not A. Agassiz); see Pal. Française, Pl. 1085-1087 (*bis*).

The short-stemmed globular-headed interambulacral pedicellariæ of *Goniocidaris florigera* (Pl. XLII. fig. 3) are remarkable for the great size of the basal part of the head and the small open foramina left between the terminal prongs of the head. These are larger than we usually find them in the corresponding pedicellariæ of other *Cidaridæ*.

The shape of the long-stemmed narrow-headed ambulacral pedicellariæ is shown on Plate XLII. fig. 2. On the test the globular-headed short-stemmed pedicellariæ are more elongate (Pl. XLIV. fig. 5), and the terminal prong of the valves is stouter.

Station 192. September 26, 1874. Lat. 5° 42' S., long. 132° 25' E.; 129 fathoms; mud. Ki Islands.

Station 204. November 2, 1874. Lat. 12° 43' N., long. 122° 10' E.; 100 fathoms and 115 fathoms; mud.