

interambulacral spaces between the broad bare ambulacral areas. The spines of the actinal surface are more slender, club-shaped and hollow, while in the spines of the abactinal region the shaft, although hollow, was quite thick.

The secondary spines resemble the primary ones of their corresponding surfaces; the miliary spines are short and straight; there are few small globular pedicellariæ on short-stems scattered round the actinostome and near the ambitus on the actinal side. Seen from above the outline is elliptical (Pl. XXXII. fig. 1), truncated anteriorly, the apex and apical system coincident, the apical system being slightly posterior. The test arches very regularly from the apex towards both the anterior and posterior extremities (Pl. XXXII. fig. 3); the actinal surface is quite flattened, the actinostome elongated, (Pl. XXXII. fig. 5), placed near the anterior extremity (Pl. XXXII. fig. 2).

The test is so thin that the radiating and circular canals can be seen through it round the actinostome (Pl. XXXII. fig. 5). The anal system is placed above the actinal surface in the ambitus, the subanal fasciole extending on to the actinal surface (Pl. XXXII. fig. 2). The subanal fasciole forms a horizontal line with two re-entering loops (Pl. XXXII. fig. 4) below the circular anal system. This is covered with miliaries and short-stemmed club-shaped pedicellariæ. The actinostome is surrounded by a fringe of large tufted tentacles (Pl. XXXII. fig. 5).

Station 191. September 23, 1874. Lat. 5° 41' S., long. 134° 4' E.; 800 fathoms; bottom temperature, 3.9° C.; mud.

#### \**Genicopatagus*.

*Genicopatagus*, A. Agassiz, 1879, Proc. Am. Acad., vol. xiv. p. 210.

This genus has striking affinities with *Holaster*, *Cardiaster*, and *Toxaster*; the ambulacra, as in *Toxaster* are all slightly sunken, but the structure of the ambulacra is like that of *Cardiaster*, while in outline it recalls *Holaster*. In the structure of the ambulacral system of the actinostome *Genicopatagus* is closely related to *Paleopneustes*; it differs from it in having the odd ambulacrum rudimentarily petaloid (Pl. XXXI. fig. 16) like the lateral ambulacra, also in having the uniformly-sized plates composing the ambulacra above the ambitus continued to the actinostome. A similar uniformity of structure in the plates composing the interambulacral areas of the actinal and abactinal region also distinguishes this genus from *Paleopneustes* (Pl. XXXV.<sup>a</sup> figs. 1, 2). The position of the anal system is similar to that of *Paleopneustes*; but while having the actinostome of that genus and its general facies, it has not its strongly-marked Spatangoid actinal surface, having no actinal plastron, and an abactinal system, which while not disconnected is yet made up of large genital plates in striking contrast to the compact apical system of *Paleopneustes*.

The madreporic body covers the greater part of the right anterior genital plate. In this species the largest specimen examined showed only a single genital opening