

(Pl. XXXV.^a fig. 2). The most striking feature perhaps of this genus is the small number of coronal plates composing the test, particularly in the interambulacral areas. This genus holds to the Spatangoids in that respect, much the same relation which *Cidaris* holds to the normal Echinids. The number of plates of the ambulacral area is comparatively small also, but not more so than we have found to be the case in *Cystechinus*, compared with the number of interambulacral plates.

In fact, in the latter there is less disproportion in the number of the plates of the two areas, although the number of plates is larger, the ambulacral plates are proportionally larger. The ambulacra are all identical in structure, the odd ambulacrum not differing from the lateral ambulacra in structure, but in having a less number of small plates with double pores, the double pores giving to the ambulacra above the ambitus the least possible petaloid appearance much as in *Argopatagus*. The apical system is more like that of *Cardiaster*, not being so elongated as in *Holaster*; there are four large adjacent interambulacral plates occupying the whole of the apical system. It has, like *Cardiaster* and *Holaster*, a very prominently labiate actinostome; the position of the anal system is like that of *Toxaster*, while the flat actinal surface and the globular outline remind one of *Cardiaster*; the actinostome is more central than in that genus. Like the typical *Paleopneustes* this species possesses no fascioles. This might perhaps be called an eminently Galeritid Spatangoid.

**Genicopatagus affinis* (Pl. XXXI. figs. 12-22; Pl. XXXV.^a figs. 1-4; Pl. XXXIX. fig. 20; Pl. XLI. figs. 38, 39; Pl. XLIII. fig. 13; Pl. XLV. figs. 20-24).

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

In this species the primary tubercles on the abactinal side of the test are irregularly placed on the interambulacral plates, occupying more the central portion of the plates (Pl. XXXV.^a figs. 2, 4), the secondary tubercles scattered between them are somewhat more numerous than the primaries. On the ambulacral plates there are from one to three or four minute primary tubercles (Pl. XXXV.^a figs. 1, 2, 4) with a corresponding number of miliaries according to the size of the plates. The spines are straight, cylindrical, rather short, larger on the actinal side (Pl. XXXI. figs. 12, 13), where the primary tubercles are larger and are arranged in somewhat regular transverse rows on the interambulacral plates (Pl. XXXV.^a fig. 2).¹ The ambulacral plates of the actinal surface are bare, carrying only miliary or few secondary tubercles; the posterior lateral ambulacra form wider bare areas than the others which are somewhat narrower (Pl. XXXV.^a fig. 1).

The colouring of this species is very various, some of the specimens were violet, while others from the same locality were of a dirty yellowish-green. One of the yellowish-

¹ Ooster has figured the spines of allied fossil genera of Holasteridæ, which show a great similarity to those of *Genicopatagus*.