

1. *Calliaster baccatus*, n. sp. (Pl. LVI. figs. 1-4).

Rays five. $R = 44$ mm.; $r = 18$ mm. Breadth of a ray at the fourth marginal plate, 10.5 mm.

Rays short and of almost uniform breadth throughout after the basal expansion is passed; extremities obtuse. Interbrachial arcs widely rounded. Lateral walls rather thick and vertical. Abactinal area more or less inflated.

The abactinal area is covered with rather large, irregularly circular tabula, the medio-radial series and the primary apical plates being the largest, and all diminishing in size as they recede from the centre. Each plate bears on its tabulum a large robust, thimble-shaped granule or stumpy spinelet, or, very rarely, two smaller ones may be present. The margin of the tabulum is surrounded by a ring of comparatively large and somewhat irregular bead-like granules of low elevation, somewhat flattened from the outside, having the appearance of being skin-covered, and consequently rather badly defined. They suggest in a certain degree the granules which bound the scrobicular ring around the primary tubercles of most of the *Cidaridæ*. In the interspaces between the plates small papulæ may be seen.

The marginal plates are massive, and each is distinctly tumid, especially in the supero-marginal series. The supero-marginal plates are nine in number, counting from the median interradiial line to the extremity, and exclusive of the odd terminal plate. They form a broad conspicuous border to the disk and rays, the breadth of which increases slightly as it approaches the extremity. The plates adjacent to the median interradiial line have the length subequal to, or slightly greater than, the breadth as seen from above, but at the extremity of the ray these proportions are reversed, and the breadth is distinctly in excess of the length. The penultimate plate is the largest of the series, and touches the corresponding plate of the other side of the ray in the median line. The last paired plate is small and wedge-shaped, and the odd terminal plate is small and more or less tubercle-like. The surface of the plates is perfectly smooth, and their margin is surrounded by a single series of rather large, flattened, bead-like granules. Each plate, excepting the innermost, bears a single knob-like tubercle or large stumpy granule on the lateral wall at its union with the abactinal area, and close to the aboral margin of the plate. The third and fourth plates from the median interradiial line also bear a similar tubercle close to their inner margin, adjacent to the paxillar area; and in one instance the fifth plate is similarly furnished. The last three plates may bear one or two smaller granules near their aboral margin, and the terminal plate may also bear from one to three granules at its extremity.

The infero-marginal plates are ten in number. They are similar in character to the superior series, being smooth, and margined by a single series of bead-like granules; and they bear two or three knob-like granules near their aboral margin at the junction of the actinal and lateral areas. On the plates at the base of the rays there is a tendency for