

present. With this armature the plates have a very echinulate appearance, and the delicacy of the spinelets is remarkable.

In the median interradiial line is a high odd infero-marginal plate immediately below the odd supero-marginal plate. It bears a series of small delicate spinelets along its median vertical line.

The adambulacral plates are small, with their length equal to, or slightly greater than, their breadth. They are rather widely separate, the intermediate space being filled in with ligament; and there is a convex or subangular margin towards the furrow. Their armature consists of:—(1.) a furrow series of three or four small cylindrical spinelets forming an isolated little hand-like comb on the projecting margin; the fourth or aboral spinelet is often very small, and often absent altogether. (2.) On the actinal surface of the plate are two much longer delicate cylindrical spines, usually placed side by side, but sometimes more or less oblique, the adoral spine being rather more outward in its position than its companion. Occasionally a minute miliary thornlet may be present near the adoral and outer margin of the plate, but there are no other spinelets present. The actinal spines measure about 2 mm. in length near the base of the ray, and the marginal or furrow series are normally less than half this length.

The mouth-plates are large, and the united pair are broad, convex actinally, and with a prominent free margin towards the actinostome, its outline being more than a semicircle, and slightly flattened anteriorly. The armature consists of a marginal series of eight small cylindrical spinelets on each plate, the two innermost being longer and more robust than the others; the four innermost on each plate stand parallel to one another and are directed horizontally towards the centre of the actinostome. On the actinal surface of the plate are three or four cylindrical tapering spinelets more robust than the actinal spinelets on the adambulacral plates, arranged rather wide apart, and sometimes rather irregularly, in a line parallel to the median suture; and one or sometimes two similar and equal spines on the anterior part of the plate in the interspace between the lineal series just mentioned and the marginal series. No other spinelets are borne on the plates.

The actinal interradiial areas are very small; and the intermediate plates are few in number and do not extend beyond the fifth adambulacral plate. There are usually two large spiracle-formed pedicellarian apparatus in each area, one on each side of the median line, which occupy nearly the whole space between the mouth-plates and the marginal plates; sometimes, however, only one is present; sometimes a second pair occur, rather smaller, and placed on each side of the odd infero-marginal plate, but sometimes in like manner only one of these is present. These double-combed or spiracle-like apparatus are larger and more complex in this species than in any other form I know; they are also composed of more numerous spinelets and the two opposing series are directed considerably upwards into the cavity of the apparatus, the external margins being prominent and apparently raised.

The anal aperture is subcentral and distinct.