

rays, and especially on the outer half of the ray, where a transversely lineal disposition may be more or less clearly observed.

The supero-marginal plates are very small, only slightly larger than the neighbouring paxillæ of the abactinal area; and they alternate with the plates of the infero-marginal series. The infero-marginal plates are large, resembling massive paxillæ, the pedicle of which is metamorphosed into a broad compressed ridge, on which is borne a great number (forty to fifty) of short, robust, skin-covered spinelets. The infero-marginal paxillæ are tolerably well spaced, except in the interbrachial arc; and from fifty-eight to sixty-two may be counted between the median interrarial line and the extremity. In the interbrachial arc and along the inner half of the ray, the infero-marginal paxillæ are entirely on the actinal surface, and they form a very conspicuous margin to the actinal interrarial areas of the disk, some distance removed from the actual margin, as defined by the tumidity of the lateral wall of the rays.

The adambulacral plates are broad, and their armature consists of two series of spines. (1.) A furrow series of short, skin-covered, cylindrical, obtusely-tipped spinelets, five in number near the mouth, but four along the greater part of the ray, which become reduced to three on the outer third, and finally to two nearer the extremity. (2.) On the actinal surface of the plate is a transverse lineal series of five (occasionally four) large, robust, slightly tapering, but obtusely pointed, skin-covered spinelets, the innermost one of the series being placed out of the line and more aborally than the others. These spinelets decrease in number and size as they approach the extremity of the ray.

The mouth-plates are narrow and comparatively small for the size of the starfish. Their armature consists of a marginal series of about ten spinelets on each plate, the innermost two or perhaps three being longer than the rest, and there is a general decrease in size as they recede from the mouth. All are skin-covered, but no membranous web is developed. On the actinal surface of each plate is a lineal series of five large, robust, tapering, skin-covered spinelets, placed rather far back on the plate.

The actinal interrarial areas are large and occupied by numerous intermediate plates, in which an indistinct arrangement parallel to the adambulacral plates may be made out. The intermediate plates bear tufts of four or five, and occasionally more, short, robust, tapering, skin-covered spines, which give a decidedly spinose character to the interrarial areas.

The madreporiform body is hidden by paxillæ, and I have failed to detect its presence in the type specimen.

The ambulacral tube-feet have a large fleshy terminal disk.

Colour in alcohol, a dirty light brown. The ambulacral tube-feet and the buccal membrane are a dark purplish lead colour.

Locality.—Station 232. South of Yeddo, Japan. May 12, 1875. Lat. $35^{\circ} 11' 0''$ N., long. $139^{\circ} 28' 0''$ E. Depth 345 fathoms. Green mud. Bottom temperature $41^{\circ} 1$ Fahr.; surface temperature $64^{\circ} 2$ Fahr.