

very short. On the actinal surface of each plate are three robust, tapering, secondary mouth-spines, two placed so that a line joining them would run parallel to the median suture, and this line is continued on the outer part of the plate by one or two smaller spinelets. The third large spinelet is placed opposite the interspace between the two large spinelets above mentioned, midway between them and the outermost of the marginal mouth-spines.

The actinal interradial areas are very small, not more than eight to ten intermediate plates being present in each. The two innermost may bear a small central conical spinelet surrounded by a few minute miliary thornlets only. There are three complex pedicellarian apparatus in each area, situated in the lateral sutures which separate the two innermost intermediate or ventral plates; these organs consist of an oval cavity equally scooped out of the margins of the two adjacent plates, each margin beset with about five short, compressed, pointed, "dog-tooth" shaped spinelets, directed over the cavity, and frequently turned upwards into the same. The major axis of the cavity measures about 1 mm. There are also structures which I take to be very minute pedicellariæ present on a number of the adambulacral plates, appearing to protrude through the membrane, usually on the outer part of the adoral margin.

The anal aperture is subcentral and distinct, its margin being surrounded by a close circlet of small spinelets longer than the small spinulation of the paxillæ. At a little distance from the aperture is a circlet of the large armed paxillæ, standing more or less regularly in the radial and interradial lines.

The papulæ, though confined to the base of each ray, occupy a much greater area than in the other members of the genus, and are probably not comprised in a specially constituted papularium. They are small and widely spaced, more than fifty may be counted in each area, and isolated ones extend as far as the fourth marginal plate.

The madreporiform body, which is small, circular, and convex, is situated close to the marginal plates, and its surface is striated with rather fine convoluted furrows. One of the large powerfully spined paxillæ stands on its adcentral side.

Colour in alcohol, a bleached ashy white.

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 $41^{\circ} \cdot 1$ Fahr.; surface temperature $64^{\circ} \cdot 2$ Fabr.

Remarks.—This is, perhaps, the handsomest species in the genus, at any rate the most striking, and is at the same time remarkably well characterised. Without referring to minor points of difference, it will suffice to say that the form is at once distinguished from all others by the group of large conical spines on the abactinal area of the disk, and by the presence of more than one large spine arranged in transverse series on the infero-marginal plates. Even without these striking features, *Pontaster oxyacanthus* would be well marked.