

Outward from the primary radial plate, the median radial line is occupied by a longitudinal series of hexagonal paxillæ, eight in number up to the base of the ray, the series being then continued along the ray in the form of rectangular plates, regularly square (excepting the first), against which the supero-marginal plates on each side of the ray abut. This series of plates measures about 1.5 mm. in breadth at the base of the ray, and 1 mm. midway between the centre of the disk and the extremity of the ray. Parallel to the median radial series of disk paxillæ are other longitudinal series of similar, but slightly smaller, hexagonal paxillæ, which diminish slightly in size as they approach the margin, their inner limit being the interradiæ line. The moderate-sized paxillæ are regularly hexagonal, with the margin beset with about twenty very short, subprismatic, truncate, papilliform spinelets, and having about seven to ten small uniform semiglobular granules rather widely spaced on the tabulum: the number varying a little according to the size of the plate. It should be noted, however, that the plates which occupy the depressed central area and its interradiæ extensions are more like plates than paxillæ, whilst those of the subinflated radial areas of the disk are distinctly paxilliform. The single series of small square plates which occupies the median abactinal line of the ray are covered with small semiglobular granules precisely similar to those on the supero-marginal plates, lineal marginal series being defined, especially on the lateral margins.

The dorso-central plate is distinct and surrounded by a cycle of seven equal-sized plates; this in turn is succeeded by a series of more numerous but less regular plates, amongst which the representatives of the under-basals must be sought. Some irregularity masks the easy recognition of the latter, but where they do appear regularly placed they are separated from the primary radial by a pair of plates. The basal plates appear to be smaller and less conspicuous than the primary radials and are nearly at the same distance from the centre. The madreporiform body is small and sunken, situated external to the adjacent basal. The anal aperture is external to the dorso-central plate.

No pedicellariæ of any kind are present.

Colour in alcohol, ashy white on the marginal plates and on the depressed area of the disk; whilst the inflated portion is of a very light brown shade, as are also the actinal interradiæ areas.

Locality.—Station 192. In the Arafura Sea, between the Ki Islands and Banda Islands. September 26, 1874. Lat. $5^{\circ} 49' 15''$ S., long. $132^{\circ} 14' 15''$ E. Depth 140 fathoms. Blue mud. Surface temperature $82^{\circ} 0$ Fahr.

2. *Paragonaster cylindratus*, n. sp. (Pl. LI. figs. 3 and 4; Pl. LIII. figs. 3 and 4).

Rays five. $R = 51$ mm.; $r = 12.5$ mm. $R > 4 r$. Breadth of the ray midway between the centre and the extremity, 4.5 mm.

Rays elongate, slender, narrow at the base, slightly tapering towards the extremity,