

3. *Pseudarchaster intermedius*, n. sp. (Pl. XIX. figs. 3 and 4; Pl. XLII. figs. 5 and 6).

Rays five. $R = 35$ mm.; $r = 11$ mm. $R > 3r$.

Rays moderately long, tapering continuously from the base to a finely pointed extremity; breadth midway between the centre of the disk and the extremity, 6.5 mm. Interbrachial arcs well-rounded.

The paxillæ of the abactinal area are rather small, subcircular, and closely placed, surmounted by ten to fifteen short, truncate, polygonal spinelets, two or three central ones usually larger than the rest, but these are irregular in disposition, and smaller ones may appear at the periphery and increase the difficulty of enumerating the spinelets. The paxillæ are disposed in regular longitudinal lines along the ray, a median radial series being clearly distinguishable and slightly larger than the others. The primary embryonic plates are discernible, though not much larger than the neighbouring plates external to them. The paxillæ diminish slightly in size as they approach the margin and proceed along the ray. A considerable number of smaller paxillæ occupy the area within the circle of the primary basal plates, and the dorso-central plate is small and inconspicuous. The madreporiform body is small and sunken, and lies external to its adjacent primary basal plate.

The marginal plates form a well-rounded lateral wall, the curvature of the inferior series being slightly fuller or more tumid than that of the superior series. The supero-marginal plates are thirty-two in number from the median interradial line to the extremity. The height of the plates in proportion to their length is greatest in the interbrachial arc; and the breadth of the marginal border as seen from above is also rather broader in the interbrachial arc. Midway along the ray it is nearly equal to the breadth of the intermediate paxillar area. The supero-marginal plates bear no spines, but are covered with a low, truncate, closely packed polygonal granulation. The granules are largest near the summit of the arc of curvature; and the plates are slightly tumid along their median line, transverse to the axis of the ray. The odd terminal plate is of a rounded shield-shape, and subtubercular in appearance.

The infero-marginal plates correspond to the superior series; their covering, however, is distinctly squamiform, except at the extreme margins, where the granules at the outer end of the plate partake of the character of those of the adjacent supero-marginal plates, whilst those at the inner end form a transition to the granules of the actinal intermediate plates. Some of the squamules on each plate are more elongate and spiniform than the rest, but the definite line of small pointed adpressed spines noticed in *Pseudarchaster tessellatus* and *Pseudarchaster discus* is wanting in the present species.

The armature of the adambulacral plates consists of a furrow series of five spines, their base line forming an acute angle into the furrow. They are moderately long and thickened towards the extremity, which, in the case of the middle spine, is more or less flattened in the direction transverse to the axis of the ray, but in the other spines in the direction of the margin of the plate to which they are attached. External to the furrow