

7. *Luidia africana*, n. sp. (Pl. XLIV. figs. 1 and 2; Pl. XLV. figs. 1 and 2).

Rays five.  $R=155$  to  $160$  mm.;  $r=18$  mm.  $R > 8.5 r$ . Breadth of a ray at the third infero-marginal plate, 18 mm.

Rays elongate, flat, rather broad at the base, and tapering slowly and gradually therefrom up to a pointed extremity. The abactinal area is plane; the lateral walls low, and the general form of the species very flat and depressed.

The paxillæ of the abactinal area are small, very minute, and closely crowded along the median line of the ray and the central area of the disk, increasing in size as they approach the sides of the ray, where two or three lateral series may be indistinctly made out. The representatives of the aborted supero-marginal plates are more or less distinctly spaced, and have a paxilla twice as broad as any of the others. The larger paxillæ of the general area are composed of a marginal series of about a dozen short, obtuse, papilliform spinelets which radiate outward almost horizontally; and two or three on the centre of the tabulum standing vertical, which are shorter and more robust. The small paxillæ along the median line of the ray have fewer spinelets, and only one central, which is more or less granuliform. Many of the medium-sized paxillæ have the tabulum occupied by a low massive hemispherical pedicellarian apparatus, formed by the modification of two or three papilliform granules, the two-valved form being the most numerous. In some specimens, however, there are comparatively few pedicellariæ, and in some the spinelets on the tabulum are nearly as long and delicate as the marginal series.

The infero-marginal plates have a high median spine-bearing keel, the fasciolar furrow between neighbouring keels being as wide as the breadth of the keel, with its walls densely covered with minute cilia-like spinelets. On the ridge are borne three moderately long, delicate, tapering, pointed spines, the longest 5 to 6.5 mm. long, the innermost slightly shortest; whilst a fourth, very much smaller and more delicate, stands near the inner extremity of the plate; these spines are subequally spaced, and form a transverse lineal series in relation to the direction of the ray. On the outer half of the ray there are seldom more than two of the long spines. At the inner end of the plate and between the spines are a few small delicate papilliform spinelets, often with a rather clavate appearance when seen in spirit, in consequence of their membranous investment.

The infero-marginal plate is separated from the adambulacral plate throughout the ray by a small intermediate plate. Upon this is borne a small, obtuse, two-valved pedicellaria, which at first sight might easily be mistaken for a clavate papilliform spinelet. These extend in large examples very nearly, if not quite, to the tip of the ray; sometimes they are accompanied by one or two small papilliform spinelets, and sometimes two or three of these may occupy the place of the pedicellaria.

The adambulacral plates bear three large spinelets, one behind the other, i.e., forming a lineal series at right angles to the furrow. The innermost spine is the shortest, compressed laterally, curved and slightly scimitar-shaped, and though tapering a little