

Rays elongate, very narrow on the outer portion, moderately broad at the base, and tapering continuously therefrom to the extremity, which is fine and pointed. Inter-brachial arcs acute, but rounded.

The abactinal paxillar area is very uniform and compact in character, the paxillæ diminishing in size towards the centre of the disk and the extremities of the rays. The paxillæ consist of three to six central granules, surrounded by about a dozen short papilliform spinelets on the margin of the tabulum. The paxillæ are arranged in regular transverse lines at the sides of the ray, whilst the median line is narrow and with the paxillæ slightly larger and irregular in their arrangement. In some examples a slight prominence occurs in the centre of the disk.

The supero-marginal plates, about 40 in number from the median interr radial line to the extremity, are comparatively flat, and higher than broad, their surface forming an arched bevel to the ray rather than a tumid rounding. Flat squamiform granules are present on the upper part of the plate, but are wanting on the lower part, which is covered with membrane. No spines or tubercles of any description are present on the supero-marginal plates.

The infero-marginal plates are higher than broad, and form a gentle and well-rounded curve on the actinal surface. In consequence of the form of the plates, nearly the whole height of the supero-marginal and infero-marginal plates can be seen when the side of the ray is placed in direct line of view. Each infero-marginal plate bears three small, straight, flattened, tapering and sharply-pointed spinelets arranged close together in an oblique line close to the lateral margin and the aboral edge of the plate. The upper spinelet, which is nearest the margin, is the smallest, and the other two are about equal in length. All are directed slightly outward in the direction of the ray, and being closely appressed to the side of the ray are almost invisible when seen from above. On the inner half of the ray a fourth spine is present a little way behind the foregoing on the aboral side of the plate, and on the innermost plates of all a fifth may also occur. The infero-marginal plates have a number of small, closely placed, papilliform squamules on the end adjacent to the adambulacral plates, but the rest of the plate is covered with membrane.

The armature of the adambulacral plates consists of an inner or furrow series of five or six nearly equal and delicate spinelets, slightly clavate, cylindrical or subcompressed, which form a very slightly radiating fan. The second series usually consists of three spinelets, shorter and more compressed than the inner series, and with truncate tips; and the third series of three or four similar spines. Irregularity frequently occurs in the arrangement of the second series.

External to the adambulacral plate is a small intermediate plate, the series of which extends far along the ray; these bear a compact group of six to eight spinelets, similar in every respect to the outer series of adambulacral spinelets, and from which they are indistinguishable on the outer part of the ray, forming together a common group. The