

definite border to the actinal area, to which they are in reality confined. Their breadth is greater than their length, and they present a prominent narrow keel, which is closely crowded with small spinelets similar to those on the paxillæ. There are thus deep channels between adjacent plates.

The adambulacral plates are small and rather widely spaced. Their armature consists of a more or less compact wedge-shaped group of small, cylindrical, more or less tapering, subequal spinelets. Three to five stand on the furrow margin and form a very acute angle, one spinelet being at the apex; one or two similar and equal-sized spines are placed on the actinal surface of the plate within the area enclosed by the marginal series; and behind these, on the outer part of the actinal surface of the plate, may be two or three smaller and irregularly placed spinelets.

The mouth-plates, which are comparatively large and elongate, are slightly prominent actinally, with a low convexity. Their whole surface is covered with short spinelets moderately spaced, which increase in length as they approach the inner end of the plates. From seven to ten spinelets stand in the marginal series, the innermost similar to, but slightly larger than, the furrow spinelets on the adambulacral plates; the other spinelets on the mouth-plates are irregular in number and position, and the whole structure has a very echinulate appearance.

The actinal interradiial areas are well developed, and are occupied by thin imbricating plates, which form isolated columns arranged in regular transverse and slightly oblique lines between the adambulacral plates and the marginal plates. All are overlaid with a uniform continuous membrane, through which the plates are not individually distinguishable, or can only be traced here and there. The intermediate plates extend far along the ray, but do not reach the tip; the numbers in the transverse columns diminishing gradually as they proceed outward. From seven to nine plates may be counted in the series adjacent to the median interradiial line. Each intermediate plate bears on an elevation on its actinal surface a paxilliform group of spinelets, which are larger and coarser than those on the abactinal paxillæ. The plates adjacent to the adambulacral plates have a distinctly elongate eminence and paxilla.

In some examples these actinal paxillæ are much coarser and more compact than in others, and the central spinelets of the crown have a tendency to be more robust and prominent. Usually the spinelets are radiating and comparatively delicate.

The madreporiform body, which is large and conspicuous, is situated rather nearer the margin than midway on the interradiial line. Its surface is slightly convex and often wrinkled or broken up, as if originally formed by the union of several plates. The striation furrows are very fine and radiate centrifugally, very little convolution being noticeable.

The ambulacral tube-feet are large, with a moderately developed, rounded, button-like knob at the extremity.