

two or three should be counted as belonging to the adambulacral plates. The question can only be decided by dissection and preparation, a step which would entail greater mutilation than I consider desirable in the case of a unique specimen. The plate upon which the outer spinelets are borne is slightly curved upward to the margin.

The mouth-plates are prominent, with an elevated angular keel along their line of juncture, terminating aborally in a rounded but prominent peak. The adoral margin projects into the actinostome, but its prominence is masked by the position of the three mouth-spines proper which stand on each side. The innermost is the longest, and situated close to the adoral peak; the other two are smaller, the outer one being the least. At the outer angle of the plate adjacent to the adambulacral plate are three small spinelets placed in a semicircle, which should probably also be ranked as mouth-spines. A single large secondary mouth-spine is placed on the surface of the plate immediately behind the innermost of the marginal mouth-spines, and is both longer and stouter than these. All the mouth-spines are enveloped in membranous sheaths, those of the two inner mouth-spines and the secondary being thick and fleshy, the others more delicate and with saccular prolongations.

The madreporiform body is very large and irregularly suboval in outline, the margin being festooned by prolongations, having the appearance of flowing out between the widely spaced fascicules by which the plate is surrounded. The central portion is slightly elevated, subconical rather than convex, and somewhat undulating in conformity with the marginal projections. The surface is covered with numerous very fine striations, which radiate from the centre. The major axis of the body measures 9 mm., and the minor 7.5 mm. Its position on the disk is somewhat nearer the centre than midway between that point and the margin.

A large aperture, 2 to 2.5 mm. in diameter, exists at a considerable distance from the centre; a muscular ring is traceable, and some cæcum-like structures are slightly protruded. This is probably the anal aperture, but its very excentric position is remarkable, being nearly midway between the centre and the margin, and when the madreporite is placed in the right anterior interradius, a line drawn through the centre of that plate, parallel to the antero-posterior axis of the starfish, would bisect the orifice.

No pedicellariæ are present.

The ambulacral furrows are very wide, and the tube-feet form by crowding four rows; each tube-foot is furnished with a fleshy, button-like, terminal disk somewhat larger in diameter than the adjacent portion of the tube, and the centre shows an invaginated depression.

The actinostome is large, measuring about 13.5 mm. in diameter, and the mouth-plates could not be apposed.

The actinal interradial areas are very limited, and any additional intermediate plates that may be present beyond the representatives of those entering into the composition of the ray are very few in number.