

The armature of the adambulacral plates consists of four (but often towards the extremity only three), short, delicate, acicular, and well-spaced spines. Three stand on the margin of the plate parallel to the furrow, the aboral being the smallest and the adoral nearly twice as long. The fourth spine, which is equal in length to the last-named, or even longer, is placed close to it, but on the outer side and away from the furrow. These two spines are present throughout the ray, and maintain this position. The three marginal spines are usually stretched horizontally over the furrow, but the fourth spine is almost perpendicular, and frequently radiates at an angle outward (away) from the furrow. The spines are covered with an investing membrane, which in the three marginal spines is expanded towards the tip and gives them a claviform appearance, the most adoral one of the three being more robust than the others; in the fourth or outward spine the investment is even more developed, and the covered spine presents a somewhat more lanceolate shape than those just referred to. The aperture-papillæ are very singular in form, and consist of a comb of about five to seven radiating spinelets springing from a common base, the central spinelet being straight and much longer than the others, which are curved, the two outer ones forming together a regular semicircular span, and the rest radiating within this curve, at gradually lessening angles of divergence from the central spinelet. The investing membrane by which the papilla is covered owes its form in a great measure to this skeleton. It is ovate or oblate basally, with an elongate acicular prominence in its outward prolongation. Near the extremity of the ray this central shaft of the papilla is greatly lengthened, being little shorter than the lateral spines.

The mouth-plates are short, but extraordinarily broad, the lateral flanges being developed to an abnormal extent. The keel at the junction is feebly represented, only flatly rounded, slightly prominent aborally, the adoral peak being well developed. One moderately robust, short, conical spinelet, very wide at the base, sharply pointed, and covered with membrane, is placed near to the adoral extremity of each plate, and rather above the actual margin. No other secondary or superficial spine is present. There are three mouth-spines, about equal in size to the spines of the adambulacral armature, placed on the extreme outer portion of the lateral flange, and sometimes the outer one is doubled.

The actino-lateral spines are delicate and well spaced. Sixteen are present on each side of a ray, the third or fourth from the mouth being usually the longest, and the rest gradually diminishing in size as they approach the extremity of the ray.

Colour in alcohol, abactinal surface white, with the faintest shade of pink; actinal surface scarlet; ambulacral tube-feet white.

*Locality*.—Station 146. Between Marion Island and the Crozet Islands. December 29, 1873. Lat.  $46^{\circ} 46' 0''$  S.; long.  $45^{\circ} 31' 0''$  E. Depth 1375 fathoms. Globigerina ooze. Bottom temperature  $35^{\circ} 6$  Fahr.; surface temperature  $43^{\circ} 0$  Fahr.

*Remarks*.—The almost venated character of the disposition of the muscular fibres in the supradorsal membrane, the peculiar character of the armature of the adambulacral