

with membrane, rather widely spaced, and usually no definite order of arrangement is discernible, although about two irregular rows may be traced in some instances.

The spinelets on the actinal intermediate plates are similar in character and disposition to the foregoing, and they merge imperceptibly into the squamules of the infero-marginal plates. This uniformity in the dermal appendages imparts a characteristic appearance to the actinal aspect of the starfish.

The mouth-plates are elongate, each with two short, flattened, truncate spinelets at the inner extremity, followed by about six pairs of short robust spinelets, which stand perpendicular on the surface of the plate, and form two series apposed to one another; these are succeeded by about four rather broader, shorter, and more robust spinelets, forming a single series in continuation, as it were, of the two apposed series, on the outer extremity of the plate, towards which the spinelets decrease as they proceed outward. Consequent on this method of arrangement there is a marked division of the mouth-plate armature into two narrow series separated by the median suture line of each mouth-angle.

The madreporiform body is small, and situated at about one-third of the distance from the margin to the centre of the disk.

The terminal (ocular) plate, though small, is conspicuous and elongately oblong.

Colour in alcohol, umber-brown, becoming lighter in shade towards the extremities of the rays. The spinelets are white. Small specimens are yellowish white.

*Young Phase.*—A small example, which has a major radial measurement of 16.5 mm., may readily be distinguished as belonging to the species. It is to be noted, however, that the paxillæ of the abactinal area have quite a different character, the spinelets of the crown being long, and radiating nearly horizontally. The armature of the adambulacral plates and mouth-plates is comparatively longer, especially on the latter; and on the actinal surface of the adambulacral plates behind the furrow series there are usually one or two larger spinelets, thickly invested with membrane, especially noticeable on the inner part of the ray, but of which no trace remains in the adult—that is to say, their prominence and juvenile robustness are altogether lost.

*Locality.*—Station 232. Off the coast of Japan, south of Yeddo. May 12, 1875. Lat. 35° 11' 0" N., long. 139° 28' 0" E. Depth 345 fathoms. Green mud. Bottom temperature 41.1 Fahr.; surface temperature 64.2 Fahr.

*Remarks.*—*Astropecten brevispinus* is distinguished from the other species in this section of the genus *Astropecten* by the single lateral spine, by the character of the adambulacral armature, and by the character of the paxillæ. It differs from *Astropecten antillensis* and *Astropecten brasiliensis* in each of these particulars. It is at once distinguished from *Astropecten aurantiacus*, which has a single lateral spine, by the general facies, and by the character of the adambulacral armature; and from *Astropecten erinaceus* and *Astropecten duplicatus* by the single lateral spine and the different character of the spinulation of the infero-marginal plates.