

series on each plate. The spinelets are equal in length, slightly compressed, broad, chisel-shaped, and truncate at the tip.

Immediately external to the adambulacral plates follows a series of actinal (? infero-marginal) plates, upon which are borne four spinelets, closely placed at the base, radiating slightly apart, forming a very oblique series upon the plate, the base line being at an angle of  $45^\circ$  to the margin of the furrow; these spinelets are equal, broad, more compressed than those on the adambulacral plates, slightly flaring, chisel-shaped, and truncate at the tip. No pedicellariæ are associated either with these spinelets, or with those forming the armature of the adambulacral plates. This series of actinal (? infero-marginal) plates is separated from the next above by a narrow space in which papulæ are present. The succeeding series, which is perhaps the representative of a series of supero-marginal plates, forms a regular longitudinal line, and the spinulation of the plates is precisely similar to that on the abactinal plates generally, excepting that a single spinelet near the inferior edge of each plate is a trifle longer and is flattened, truncate and chisel-shaped at the tip, simulating in miniature the chisel-shaped spines on the actinal and adambulacral plates. This single spine on each plate forms a regular series along the ray, but is so small that it is scarcely noticeable without a magnifying-glass.

The madreporiform body, which is remarkably small and situated near the margin at the summit of the almost vertical interbrachial arc, is surrounded by a closely packed circlet of rounded papilliform spinelets. It is elliptical or circular in shape, and the surface, which is slightly concave, is grooved with fine radiating striations.

Colour in alcohol, greyish white, with traces of a purplish colour on the abactinal surface in the case of a large example. In a smaller specimen the purple colour is more fully preserved.

*Localities.*—Off Marion Island. Depth 50 fathoms.

Station 151. Off Heard Island. February 7, 1874. Lat.  $52^\circ 59' 30''$  S., long.  $73^\circ 33' 30''$  E. Depth 75 fathoms. Volcanic mud. Surface temperature  $36\cdot2$  Fabr.

*Remarks.*—This species is distinguished by the transverse series of three flattened spinelets on the adambulacral plates, and by the presence of the remarkable obliquely placed combs of four flattened spinelets on the infero-marginal plates. The character of the abactinal plating and spinulation is also characteristic, and produces a habit distinctly different from that of any other species except *Asterias (Smilasterias) triremis*.

13. *Asterias (Smilasterias) triremis*, n. sp. (Pl. CI. figs. 5 and 6; Pl. CII. figs. 5 and 6).

Rays five.  $R = 35$  mm.;  $r = 5\cdot5$  mm.  $R > 6 r$ . Breadth of a ray at the base about 7 mm.

Rays elongate, tapering, convex, and apparently subcylindrical abactinally, but flattened actinally. Disk small and convex, often more or less tumid and higher than the base of the rays. Interbrachial arcs acute.