

The actinal interradial areas, which are very small and narrow, probably do not contain more than a pair or so of small intermediate plates; and the area has the appearance of being covered with small ciliary spinelets.

The madreporiform body is hidden by paxillæ.

The ambulacral tube-feet have large rounded terminal knobs.

Colour in alcohol, a snowy white, mottled with irregular patches of intensely dark-brown almost black, but lighter in some places and approaching mouse-colour. Actinal surface and lateral spines white, also the central conical spine on the tabulum of the paxillæ, whether the paxilla itself be white or black. Ocular or terminal plate white. The mottling and the sharp contrast of the patches of colour give a remarkably handsome character to this starfish.

Individual Variation.—In a ten-rayed example the paxillæ in all the regular longitudinal series at the sides of the rays may have a central conical spinelet on the tabulum, but those in the outermost two rows are much less pronounced. The rays are slightly shorter and the disk broader: $R = 166$ mm., $r = 22-23$ mm. The colour mottling may also affect the lateral spines in places.

Young Phase.—Small immature specimens, which I refer to this species, were collected at Stations 204 and 219. Each example has ten rays, and their characters accord so closely with the foregoing description that I feel little doubt about placing them as the young of *Luidia aspera*. The largest has a radial measurement of 45 mm. As might naturally be expected at this early stage of growth, the central spinelet on the tabulum of the paxillæ near the sides of the rays is very feebly developed, and is in fact so small as to almost escape notice on superficial examination. Otherwise the characters of the adult are well displayed.

Localities.—Samboangan, Philippine group. Depth 10 fathoms.

Station 204. Off Tablas Island, Philippine group. November 2, 1874. Lat. $12^{\circ} 43' 0''$ N., long. $122^{\circ} 9' 0''$ E. Depth 100 to 115 fathoms. Green mud. Surface temperature $84^{\circ} 0$ Fahr.

Station 219. North of Admiralty Island. March 10, 1875. Lat. $1^{\circ} 54' 0''$ S., long. $146^{\circ} 39' 40''$ E. Depth 150 fathoms. Coral mud. Surface temperature $84^{\circ} 0$ Fahr.

Remarks.—This species is characterised by the form of the paxillæ and by the armature of the infero-marginal plates. The nearest ally in its own area of distribution is *Luidia maculata*, from which it may be distinguished by the particulars just mentioned.

2. *Luidia alternata* (Say), Lütken.

Asterias alternata, Say, 1825, Journ. Acad. Nat. Sci. Philadelphia, vol. v., pt. 1, p. 144.

Luidia alternata, Lütken, 1860, Videnskab. Medd. naturh. Foren. i Kjøbenhavn for 1859, p. 43.

Locality.—Challenger Expedition: Bahia. Depth 7 to 20 fathoms.

Other Localities.—Florida, Breton Island, Tortugas, St Thomas.