Zoology Part LI: Report on the ASTEROIDEA. By W. Percy Sladen, Bound in Volume 30,1889.

Chorological Synopsis of the Species.

	Ocean.	Range in Fathoms.	Nature of the Sea-bottom.
Marsipaster alveolatus . .	Atlantic.	2192	...
Marsipaster hirsutus . .	Pacific.	2160	Blue mud.
Marsipaster spinosissimus .	Pacific.	2335	Red clay.

1. *Marsipaster spinosissimus*, Sladen (Pl. LXXVIII. figs. 5 and 6; Pl. LXXIX. figs. 7–9).

Marsipaster spinosissimus, Sladen, 1882, Journ. Linn. Soc. Lond. (Zool.), vol. xvi. p. 203.

Marginal contour pentagonoid. Rays somewhat produced. Interbrachial arcs widely rounded, forming a continuous curve from tip to tip. The minor radius is in the proportion of 62·5 per cent. R = 16 mm.; r = 10 mm. General form depressed; abactinal area slightly convex, tapering off gently to the extremity of the rays.

The supradorsal membrane is very fine and thin, somewhat irregular, and forming a continuous spongiose mass, rather than a definite membranous sheet, through which the spinelets of the paxillæ protrude freely. No specialised muscular fibrous bands are present. The spiracula, which are very few in number, are widely and irregularly spaced.

The paxillæ have long pedicles and a crown consisting of a great number of very fine hair-like spinelets (twenty to thirty at least upon the disk), which radiate at a small angle from the perpendicular, the crown and pedicle being alike invested with a delicate membranous tissue, the whole appendage seen in profile bearing a fanciful resemblance to an umbrella when turned inside out. The investing membrane merges into the general spongy tissue above mentioned, and a considerable length of the extremities of the spinelets protrudes free and naked. The paxillæ are numerous, and their crowns join up close together. Owing to these circumstances and to the great number of the spinelets, the abactinal surface presents the appearance of a coarse, irregular velvet pile. The oscular orifice is small and quite inconspicuous, the valves consisting of a flattened crown of rather more robust spinelets.

The ambulacral furrows are rather broad, not petaloid, and taper towards the extremity. The tube-feet are arranged in simple pairs. The armature of the adambulacral plates consists of five long, acicular spinelets, webbed together into transverse or obliquely curved combs, and remarkable for their position more than half within the furrow. The spines are of unequal length, the innermost being much smaller than any of the others, and placed somewhat in advance of, or aboral to, the series; the longest spine, which is

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