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W. Percy Sladen F.L.S. F.G.S.

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stripes, which are filled with yellow silky pubescence. Elytra at the base a little broader than the thorax, and nearly three and a half times as long, regularly attenuated posteriorly; each elytron with three yellow silky stripes, the middle one impressed at the base, not quite extending to the apex of the elytron.

Hab. Madagascar, Fianarantsoa.

XIX.—*Note on the Occurrence of Pedicellaster (Sars) in the Far North.* By W. PERCY SLADEN, F.L.S., F.G.S.

In the "Report on the Echinodermata collected during the Arctic Expedition, 1875-76" (Ann. & Mag. Nat. Hist. ser. 4, vol. xx. p. 449), a starfish obtained in Discovery Bay (lat. 81° 41' N., 25 fathoms) and off Cape Frazer (lat. 79° 44' N., 80 fathoms) was described under the name of *Asteracanthion palæocrystallus* (l. c. p. 455).

Owing to the very marked characters presented by this form, it was not without considerable hesitation that the species was classed as an *Asteracanthion*, and then only on account of extreme unwillingness to burden the nomenclature of Asterozooids with an additional generic term. Subsequent study, however, of Captain Feilden's specimens and also of Sars's original description and figures of *Pedicellaster typicus** (which the writer had not previously seen) leaves no doubt that the form above mentioned ought to be referred to Sars's genus.

Pedicellaster is characterized by the true biserial arrangement of ambulacral sucker-feet, the more or less regularly quadrate arrangement of the ossicles composing the abactinal network, the isolated spinelets borne mainly at the decussations, the general character of the spinulation together with the fact that every appendage of the body is invested with a thick semitransparent cuticular membrane, and, above all, by the presence of *pedicellariæ forcipiformes* ("*pédicellaires croisés*," Perrier) without the usual accompaniment of *p. forcipiformes*—an occurrence unknown in any other genus. The *pedicellariæ* also are of extraordinary size, being but little less than the dorsal spinelets, and stand isolated upon the membrane that stretches over the intermediate spaces of the calcareous network of the body-frame, their form at the same time being undoubtedly characteristic.

* Oversigt af Norges Echinodermter, pp. 77-84, pl. ix. figs. 7-17, pl. x. figs. 1-10.

In each of the above particulars the specimens in question accord exactly with the diagnosis given by the eminent Norwegian naturalist. Specifically, however, *Pedicellaster palæocrystallus*, nobis (for such it should accordingly be written), differs unequivocally from *P. typicus*, Sars (the only representative of the genus hitherto known), in the general size, proportions, and habitus of the starfish, as well as in the form of the pedicellariæ and spinelets. *P. palæocrystallus* is of larger size; and the length of the arm-radius in proportion to that of the disk (about 5 : 1) is less than in *P. typicus*, in which it is $6\frac{1}{2}$ or 6 : 1; the contour of the arms is also different in our form, being more tumid on the inner third and much more attenuated on the remaining outward portion of the ray; the dorsal spinelets are decidedly radio-laminate and somewhat expanded at the tip, instead of being conical as described in *P. typicus*; and the shaft of the ambulacral spinelet is denticulate; whilst the pedicellariæ in the present species differ in being of even larger size and having the contour of the jaws considerably swollen out about the outer third and then tapering rapidly towards the extremity, which is somewhat truncate.

Other minor differences occur; and these, together with figures, will be recorded in the memoir on Arctic Echinodermata, in course of preparation by Prof. P. Martin Duncan and the writer.

The great rarity of the genus *Pedicellaster* and the interest attaching to its occurrence in such high latitudes may be urged in justification of the present advance-note upon the subject.

XX.—*On a Spine* (Lophacanthus Taylori, mihi, nov. gen. et spec.) from the Coal-measures of Northumberland. By THOMAS STOCK, of the Natural-History Department, Museum of Science and Art, Edinburgh*.

AMONGST a parcel of fish-remains sent me a few months ago by Mr. Joseph Taylor of Shire Moor, Northumberland, was a spine which Mr. Taylor said he believed was new. After a careful study of the specimen, and after consulting all the literature of the subject accessible to me, I came to the conclusion that the spine was not only specifically new, but must be regarded as the type of a new genus.

Description. The spine, as I received it, was in three fragments: the two upper were partially imbedded in the matrix;

* Read before the Edinburgh Geological Society, December 1879.