

Station 235. Off Japan, south of Omae saki. June 4, 1875. Lat. $34^{\circ} 7' 0''$ N., long. $138^{\circ} 0' 0''$ E. Depth 565 fathoms. Green mud. Bottom temperature $38^{\circ} \cdot 1$ Fahr.; surface temperature $73^{\circ} \cdot 0$ Fahr.

Remarks.—*Pararchaster semisquamatus* and *Pararchaster antarcticus* are readily distinguished from the other species of the genus by the absence of pedicellariæ and the simplicity of the spinulation of the abactinal plates. The differences between the two forms are discussed in detail in the description of *Pararchaster antarcticus*.

If these two species and the variety are viewed together as an independent or specially characterised type of the genus, their distribution is very remarkable and instructive, *Pararchaster semisquamatus* of the North Pacific being represented by a variety in the North Atlantic, whilst the closely-allied species *Pararchaster antarcticus*, from the Southern Ocean, presents some of the characters of the typical or Pacific form of *Pararchaster semisquamatus*, as well as some of those of its Atlantic variety *occidentalis*.

[1a. *Pararchaster semisquamatus*, var. *occidentalis*, nov.

There is a single specimen from the western side of the North Atlantic, off the east coast of North America, which, although agreeing in a remarkable way in all essential points with the type just described, presents a number of variations which render it worthy in my opinion of nominal recognition,—in fact, it may ultimately prove to be a distinct species. At present, however, I hesitate from according it that rank on the slender evidence of a solitary and imperfect specimen, although the widely separated geographical position of the two dredging stations would certainly favour the adoption of such a course.

The two forms are almost exactly of the same size. In the Atlantic example—the variety under notice—the spines on the supero-marginal plates are distinctly thicker and more robust at the base, whilst those on the infero-marginal plates are relatively smaller than in the Pacific form (the type). The two large spines on the actinal surface of the adambulacral plates are also smaller and shorter. On the abactinal surface the single minute thornlet which springs from the centre of the abactinal plates is distinctly shorter and thicker—a circumstance which gives at first sight a finely tuberculate character to the abactinal area when viewed from above. The large spines in the central region of the disk are smaller and much less numerous than in the Japanese form, and do not extend to the base of the rays. The lateral wall at the summit of the interbrachial arc is much less bevelled towards the abactinal surface of the disk, and the marginal plates do not bend over so conspicuously as in the type figured. The infero-marginal plates appear proportionately smaller in their transverse dimensions; and the marginal or furrow series of spines on the adambulacral plates are slightly more delicate and elongate. The roughening of the surface of the large spines on the marginal plates and elsewhere is more