

The ambulacral furrows are wide and open, occupying nearly the whole of the actinal surface of the ray. The adambulacral plates are small, and form regular triangular prominences, which indent, as it were, the margins of the furrow. Their armature consists of two short, subconical, sharply-pointed, or thorn-like spinelets, placed side by side on the aboral side of the projecting angle; they are consequently directed aborally and at an angle towards the furrow, diverging also slightly from one another.

The mouth-plates are rather large, forming an acute angle adorally, with an elevated angular ridge along the line of suture, each plate being strongly bent downwards, and having the upturned edges compressed together to form the keel. The aboral extremity is more elevated than any other part, and presents a sharp angular peak, the mouth-plates sloping down therefrom with a graceful inward curve to the level of the actinal interradial area. Their armature consists of a single short conical mouth-spine, placed at the extremity of the adoral peak; and two others, about equal in size to the spinelets of the adambulacral armature, stand on the lateral margins of each plate, the most adoral of the two being situated nearly midway between the extremities of the margin.

The actinal interradial areas, which are small and sagittiform in outline, do not extend beyond the third adambulacral plate. The intermediate plates are small and subregular, transversely elongate on the outer part of the area, and with a tendency to imbricate; this character, however, being so faintly presented that it is difficult to say whether imbrication really exists or not.

Colour in alcohol, greyish white generally, but rather darker over the abactinal area of the disk.

Locality.—Station 237. Off the coast of Japan, south of Kawatsu. June 17, 1875. Lat. $34^{\circ} 37' 0''$ N., long. $140^{\circ} 32' 0''$ E. Depth 1875 fathoms. Blue mud. Bottom temperature $35^{\circ} \cdot 3$ Fahr.; surface temperature $73^{\circ} \cdot 0$ Fahr.

Remarks.—*Porcellanaster tuberosus* is distinguished from the other species of *Porcellanaster* with only one cribriform organ in each interbrachial arc, by its broad and robust rays, with a large and tubercular terminal plate armed with three spines, and by having only two supero-marginal plates on each side of a ray armed with spines, which are stout. Other points of difference are noticed in the description.

4. *Porcellanaster crassus*, Sladen (Pl. XXII. figs. 4-7; Pl. XXVII. figs. 1-4).

Porcellanaster crassus, Sladen, 1883, Journ. Linn. Soc. Lond. (Zool.), vol. xvii. p. 225.

Rays five. $R = 35$ mm.; $r = 10 \cdot 5$ mm. $R < 3 \cdot 5 r$.

The rays are elongate, robust, and taper gradually from the base to the extremity. The disk is small, but not high, and is only slightly inflated above the level of the