

supero-marginal plates, and by the truncate and obtuse granulation on the marginal plates. The presence of the short, though well-developed, spinelet on the infero-marginal plates, as well as the general form and size of the starfish, prevents its being mistaken for *Plutonaster notatus*. The differences that characterise *Plutonaster marginatus* are sufficient to avoid any clashing with that form.

3a. *Plutonaster rigidus*, var. *semiarmata*, nov. (Pl. XIV. fig. 5).

Rays five. $R = 84$ mm. ; $r = 20$ mm. Breadth of the ray between the fourth and fifth supero-marginal plates, 15 mm. ; midway along the ray, 9 mm.

From Station 46 or 47 a variety of *Plutonaster rigidus* was obtained, the characters of which are so well marked that its recognition by name seems desirable. This form differs most conspicuously from the type in that the infero-marginal plates in the interbrachial arc along the disk are devoid of the conical spinelets, although these are present from the base of the ray outwards as usual. The marginal plates both of the inferior and superior series are peculiar in being covered centrally with a membrane through which the granules can be faintly seen. This membrane does not cover the extreme margins at the adoral and aboral sutures, but leaves exposed the cilia-like papilliform granules there. The plates are slightly concave in their median line of breadth, at least in the interbrachial arc and at the basal part of the rays, and the presence of the membrane gives them at first sight a naked appearance, which is further emphasised by the visibility of the marginal cilia. This character is less striking on the outer part of the rays, probably in consequence of the membrane being thinner there. The granules which cover the plate underneath the membrane are smaller than in the type.

The paxillæ on the abactinal surface are slightly larger than in the type, with more numerous granules on the central tabulum, and with more numerous but comparatively smaller papilliform granules in the marginal series which surround them. Thus there may be as many as from nine to twelve in the centre, and about twenty in the marginal series, the disparity in size being conspicuous ; and the central area of granules often appear faintly convex.

The disc is a trifle smaller and the rays slightly longer and narrower ; but the difference in this respect is not very important.

The granules on the actinal surface of the adambulacral plates are perhaps slightly smaller, more numerous, and even less regular than in the type. The intermediate plates of the actinal interradiar areas are similar to those in the type, and neither they nor the adambulacral plates have any superficial membranous covering.

Colour in alcohol, a bleached white, ashy grey on the paxillar area, and a light brownish shade on the actinal surface.

Locality.—Station 46 or 47. Off the coast of North America, east of New Jersey and Long Island.