

*Chorological Synopsis of the Species.*

	Ocean.	Range in Fathoms.	Nature of the Sea-bottom.
<i>Plutonaster abbreviatus</i>	N. Atlantic.	1000	Volcanic mud.
<i>Plutonaster ambiguus</i>	S. Pacific.	950	Green mud.
<i>Plutonaster bifrons</i>	N. Atlantic.	210 to 1360	{ Globigerina ooze. Blue mud (1340 fathoms).
<i>Plutonaster marginatus</i>	S. Atlantic.	425	Volcanic sand.
<i>Plutonaster notatus</i>	N. Atlantic.	1000	Pteropod ooze.
<i>Plutonaster rigidus</i>	N. Atlantic.	1700 or 1240 <sup>1</sup>	Blue mud.
<i>Plutonaster rigidus</i> , var. <i>semiarmata</i>	N. Atlantic.	1340 or 1350 <sup>1</sup>	Blue mud.

1. *Plutonaster bifrons*, Wyville Thomson, sp. (Pl. XI. figs. 1-4; Pl. XIII. figs. 9 and 10).

*Archaster bifrons*, Wyville Thomson, 1873, *The Depths of the Sea*, p. 122, figs. 17 and 74.

Rays five.  $R = 90$  mm.;  $r = 21$  mm.  $R < 4.5r$ . Minor radial proportion 23.3 per cent. Breadth of a ray near the base, 25 mm.

Rays elongate, moderately broad at the base, tapering continuously to a finely pointed extremity. Interbrachial arcs widely rounded. Lateral walls vertical. Abactinal surface plane, or slightly inflated. Actinal surface subplane, highest at the mouth-angles, and sloping thence to the margin and along the rays.

The paxillæ of the abactinal surface are minute and crowded; and are composed of twenty to twenty-five short papilliform spinelets—five or six in the midst of each crown being more robust than the rest.

The marginal plates are large, well-defined, and conspicuous. The supero-marginal plates, thirty-three in number from the median interradial line to the extremity, form a well-defined border on the abactinal surface. They are about as broad as high, and covered with granules, which become subconical in form on the lateral half of the plate. Each supero-marginal plate bears a single, moderately long, conical pointed spinelet, which stands on the rounded angle of the plate, and is directed outward almost horizontally. Sometimes this spinelet may be redoubled on two or three plates near the middle of the ray. The sutures between the plates are well-defined.

The infero-marginal plates correspond to the superior series, and are similar in every respect, covered with similar subconical granules, and each with a similar and equal-sized spinelet directed horizontally. The supero-marginal spines diminish in size towards the interbrachial arc and towards the extremity, and also the infero-marginal spines, but in a less degree. The largest spines are consequently about midway on the ray.

<sup>1</sup> The exact station is not known: an alternative record being given.