

Each plate bears a few small pointed thorn-like spinelets, rather widely spaced, but at the same time more or less grouped.

The anal aperture is subcentral and very distinct, and is emphasised by a few of the spinelets of the paxillæ that surround it being sensibly more robust than the rest.

The papulæ occupy a limited area at the base of the ray. They appear smaller and perhaps more numerous than in some species, but I am unable to give their number accurately; and no definite order of arrangement is discernible.

The madreporiform body, which is small, circular, and slightly convex, is situated midway between the centre and the margin of the disk; the striation furrows with which its surface is grooved are rather coarse, and radiate centrifugally with more than usual regularity.

Colour in alcohol, a greyish or ashy white.

*Young Phase.*—A small example, which measures  $R = 16$  mm.,  $r = 5$  mm., and has thirteen or fourteen supero-marginal plates, accords in all respects with the larger specimen, and is perfectly recognisable. The anal aperture is distinct; there are a few comparatively large papular pores at the base of the rays; and the large isolated paxillæ are entirely characteristic. The adambulacral plates have not more than four or five spines on the furrow margin, though there is a small thornlet at each extremity of the series at the margin of the actinal surface. On the infero-marginal plates the small secondary spinelets below the lateral spine are not yet distinguishable from the miliary spinulation of the plate. The madreporiform body is very simple and placed close to the marginal plates.

*Locality.*—Station 164. Off the coast of Australia, east of Sydney. June 12, 1874. Lat.  $34^{\circ} 8' 0''$  S., long.  $152^{\circ} 0' 0''$  E. Depth 950 fathoms. Green mud. Bottom temperature  $36^{\circ} 5$  Fahr.; surface temperature  $69^{\circ} 5$  Fabr.

*Remarks.*—This species is readily distinguishable by the broad margin of the supero-marginal plates on the abactinal area, by the tubercles borne on these plates, by the absence of pedicellariæ, and by the character of the large isolated paxillæ on the abactinal area; and further by the short and comparatively obtuse rays. *Pontaster subtuberculatus* may probably be regarded as the southern representative of *Pontaster venustus*.

#### Subfamily PLUTONASTERINÆ, Sladen, 1886.

##### Genus *Dytaster*, Sladen.

*Dytaster*, Sladen in Narr. Chall. Exp., 1885, vol. i. p. 608.

Disk more or less inflated. Rays very long and attenuate, often subcarinate along the median line abactinally, very slightly flexible.

Marginal plates rectangular; the supero-marginal plates thin and lamelliform, confined more or less to the lateral wall of the ray, which is usually vertical. The plates of the superior series are directly superposed on the corresponding plate of the inferior series,