

2. *Pteraster affinis*, Smith.

Pteraster affinis, E. A. Smith, 1876, Ann. and Mag. Nat. Hist., ser. 4, vol. xvii. p. 108; Phil. Trans., Zool. Kerguelen Island, 1879, vol. clxviii. p. 275, pl. xvi. fig. 5.

Locality.—Station 149D. Royal Sound, Kerguelen Island. January 20, 1874. Lat. 49° 28' 0" S., long. 70° 13' 0" W. Depth 28 fathoms. Volcanic mud. Surface temperature 41°·0 Fahr.

3. *Pteraster rugatus*, Sladen (Pl. LXXIV. figs. 3 and 4; Pl. LXXVII. figs. 3 and 4).

Pteraster rugatus, Sladen, 1882, Journ. Linn. Soc. Lond. (Zool.), vol. xvi. p. 192.

Marginal contour subpentagonal, interbranchial arcs scarcely indented, the minor radius being in the proportion of 68·4 per cent. $R = 9\cdot5$ mm.; $r = 6\cdot5$ mm. Interradial margin rounded, extremities of the rays slightly upturned, exposing the end of the furrow. Abactinal profile rounded, not high, tapering but little towards the extremities of the rays. Actinal surface flat or slightly convex. Lateral fringe very slightly produced beyond the margin of the test.

The supradorsal membrane is subcorrugated and is not reticulated. The paxillæ-spinelets are fine, about five or six in number, and their tips are slightly protuberant, producing a slight papillate appearance on the abactinal surface; no regularity of arrangement is perceptible. The membrane is indurated with minute spicules averaging 0·03–0·04 mm. in length, which are small, irregular, and angularly-branching bodies, subdendriform in appearance and fairly well spaced. The spiracula are rather large, not numerous, and are irregularly placed.

The ambulacral furrows are narrow, uniform in breadth till near the extremity, and not petaloid. The ambulacral tube-feet are disposed in regular simple pairs. The armature of the adambulacral plates consists of short and rather robust spinelets, three or four in each comb, but three only on the outer part of the ray. The innermost spine is nearly as long as the others, or, if a small inner one be present, it may be more or less aborted and invisible without dissection. The web is remarkably thick and fleshy, subsaccular over the spinelets, and passes off from the outermost spine with a long gentle sweep far out upon the lateral fringe.

The mouth-plates each bear on their margin about three rather short, robust mouth-spines webbed together. There is one secondary or superficial mouth-spine on the actinal surface of each plate, perpendicular to the plane, longer than any of the other spines, exceedingly thick, triangular, translucent, sharply pointed, and covered with a thick fleshy investment.

The aperture-papillæ are large, prominent, and subtriangular. The actino-lateral spines, which are directed horizontally, are comparatively long, specially in the inter-radial area. The web is rather thick and fibrous.

Colour in alcohol, greyish white.

(Zool. CHALL. EXP.—PART LI—1888.)