

The adambulacral plates are large and their armature consists of two series of spines. (1.) A furrow series of five short, robust, rather broad, slightly compressed, skin-covered spinelets, united by a membranous web at their base, and forming a usually vertically disposed semicircular comb. (2.) On the actinal surface of the plate is a transverse lineal series of three, or occasionally four large, conical, skin-covered spinelets, which decrease in size as they recede from the furrow.

The mouth-plates are rather elongate, and with their armature have the appearance of an elongate pointed scoop. Their armature consists of a marginal series of ten spinelets on each plate. The innermost is rather longer than the others, the third and succeeding spinelets, which are subequal in length, are rather shorter than the second; all are united for fully two-thirds of their length by a membranous web. The innermost spinelet on each plate has rather an isolated appearance from the rest, and these two spinelets of the united pair of plates being close together give a characteristic appearance to the mouth-armature of this species. On the actinal surface of each plate is a curved series of five or six robust, conical, skin-covered spinelets, which diminish in size as they recede from the mouth.

In the actinal interradial areas of the disk there are three or four series of small actinal intermediate plates, which bear small paxilliform groups of four to six short, equal spinelets; the innermost series extends to nearly midway along the ray, but the others do not pass beyond the base of the ray.

The madreporiform body, which is small and inconspicuous, is situated rather nearer the centre of the disk than midway between that point and the margin. Its surface is not convex, the striations are rather coarse, and its margin is surrounded by five or six paxillæ rather larger than the neighbouring ones.

The anal aperture is distinct and subcentral. There is no modification in the size or character of the neighbouring paxillæ.

The ambulacral tube-feet are large, and have a fleshy, centrally-invaginated, terminal disk. Colour in alcohol, a bleached yellowish white.

Locality.—Station 170. North of the Kermadec Islands. July 14, 1874. Lat. 29° 55' 0" S., long. 178° 14' 0" W. Depth 520 fathoms. Volcanic mud. Bottom temperature 43°·0 Fahr.; surface temperature 65°·0 Fahr.

Remarks.—This species is distinguished from all other forms by the shape of the rays, by the sloping ravine on the disk at their base, by the character of the abactinal paxillæ, and by the armature of the adambulacral plates and mouth-plates.

Genus *Lophaster*, Verrill.

[*Lophaster*, Verrill, Amer. Journ. Sci. and Arts, 1878, 3rd ser. vol. xvi. p. 214.

Lophaster was hitherto known only from the North-Atlantic area. The Challenger obtained examples of a form which I consider referable to the genus from the South