

the backwardly projecting process is greater than in the Kerguelen form. Mr. H. J. Carter¹ has given a very good description of this spicule in *Desmacidon* (*Homæodictya*) *palmata*, with two excellent figures, the correctness of which was most satisfactorily verified by reference to the Bowerbank collection in the British Museum; it appears to us, however, that the lateral fimbriæ of the shaft are usually broader than he has represented them, and the spicule thus makes a still closer approach to that of *Desmacidon* (*Homæodictya*) *kerguelenensis* than might be judged from his figure.

Locality.—Royal Sound, Kerguelen, 25 fathoms. Two specimens.

Desmacidon (*Homæodictya*) *grandis*, Ridley and Dendy (Pl. XXII.; Pl. XXIX. figs. 7, 7a).

1886. *Homæodictya grandis*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 347.

Sponge (Pl. XXII. fig. 1) compressed, lamelliform; presumably of erect growth. The single specimen in the collection consists of a large, very broad, very much flattened lamella, at one end proliferating into compressed, digitate branches, at the other consisting of a simple, flat expansion with incipiently lobate margin. One side of the frond bears very numerous, stellately arranged oscula, placed at very regular intervals from one another; these form a very prominent feature of the sponge; they are entirely absent from the other side (*cf.* Pl. XXII. figs. 1a, 1b). The specimen is of rather irregular shape and has been broken off along its lower margin, so that we cannot tell how far it extended in a vertical direction; in its present condition it is much broader than it is high, the greatest breadth being about 275 mm. (the lower margin, however, is only about 162 mm. long) and the greatest height about 150 mm. The thickness at the broader end of the piece is about 6 mm. and at the narrower end about 2.5 mm. *Colour* in spirit greyish-yellow. *Texture* firm, tough, fibrous, resilient. *Surface* on both sides very fairly even, but minutely conulose and very minutely hispid; conuli most prominent towards and on the free margin; very harsh to the touch. *Dermal membrane* thin, transparent, delicate, stretched between the conuli. *Oscula* minute, arranged in stellate groups of about four each, on one side only of the frond (Pl. XXII. fig. 1b); each group about 2 mm. in diameter; these groups of oscula are very abundant and arranged at fairly constant intervals of about 6 mm. from one another. *Pores* not found.

Skeleton.—Very well developed; composed of stout, branching, *Axinella*-like spiculo-fibre, made up of stout oxete spicules. These spicules have each one end imbedded in the fibre, while the other projects outwards, towards the surface of the sponge, at a slight angle. The fibres trend towards the surface, where they terminate in tufts of oxete spicules, thus giving rise to the surface conuli. Parallel fibres may in places be connected by loose crossing spicules.

¹ *Ann. and Mag. Nat. Hist.*, ser. 5, vol. x. p. 111, fig. 1, a and b.