

Skeleton.—(a) *Dermal*; consisting of a layer of irregularly but very thickly scattered tylota; these spicules may also be found in irregular, short, thick fibres or brushes, disposed at right angles to the surface immediately beneath the dermal membrane. (b) *Main*; an abundant but very irregular and ill-defined reticulation of spined styli, sparsely echinated by smaller spined styli. No very distinct fibres are found, although traces of such occur running vertically towards the surface of the sponge.

Spicules.—(a) *Megasclera*; of three kinds. (1) Entirely spined styli (Pl. XXVII. fig. 12), usually slightly curved and tapering gradually to a very sharp point at the apex; with the spination distinct but not very strongly pronounced and most developed about the base; size about 0.42 by 0.016 mm.; making up the main skeleton. (2) A few, much smaller, entirely spined styli or subtylostyli (Pl. XXVII. fig. 12a), usually straight and tapering gradually from the base to a sharp point at the apex, size about 0.16 by 0.0125 mm.; echinating the main skeleton. (3) Tylota (Pl. XXVII. figs. 12b, 12c), entirely smooth, with straight shaft and not very strongly marked oval heads narrowing towards the end; size about 0.3 by 0.0094 mm.; the heads of these spicules are often more strongly developed at one end of the shaft than at the other, a character, however, which is by no means peculiar to the species in question. (b) *Microsclera*; (1) tridentate isochelæ,¹ (Pl. XXVII. fig. 12d), with only slightly curved shaft; length very variable, up to about 0.04 mm. (2) Slender, usually much contort sigmata, length up to about 0.057 mm.

This sponge comes near to *Myxilla fusca*, nobis, but is doubtless distinct, as indicated by the great difference in size of the larger spined styli and perhaps by the absence of echinating spicules in that species; a very important distinction also lies in the forms of the chelæ of the two species (*cf.* figs. 11b and 12d, Pl. XXVII.).

Locality.—Off Marion Island; depth, 50 to 75 fathoms. A few fragments.

Myxilla mariana, var. *massa*, Ridley and Dendy (Pl. XXVII. figs. 6, 6a, 6b, 6c, 6d, 6e, 6f).

1886. *Myxilla mariana*, var. *massa*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 473.

Sponge massive, amorphous. The type specimen is irregularly globular in shape and about 37 mm. in diameter. *Colour* in spirit yellow. *Texture* soft and spongy. *Surface* very uneven, but not hispid. *Dermal membrane* very well developed, thin and transparent. *Pores* large and exceedingly numerous, plainly visible to the naked eye, collected in large, irregular groups over the subdermal cavities, reducing the dermal membrane in these places to a mere network. *Oscula* small, scattered, with their margins flush with the surface of the sponge.

Skeleton.—(a) *Dermal*; scattered through the dermal membrane are a great number

¹ Occasionally a four-toothed isochela is found.