

Myxilla paucispinata, Ridley and Dendy (Pl. XXVII. figs. 2, 2a, 2b, 2c; Pl. XXX. fig. 3).

1886. *Myxilla paucispinata*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 471.

Sponge (Pl. XXX. fig. 3) massive, amorphous, cavernous.¹ *Colour* in spirit pale yellow. *Texture* rather soft, very brittle and fragile. *Surface* very uneven and roughly hispid from the presence of numerous large foreign (Hexactinellid) spicules; with numerous apertures leading into canals; some of these apertures are undoubtedly oscula, each being surrounded by a fringe of spicules. The surface also presents circular areas, in each of which the parchment-like *dermal membrane* covers over an underlying cavity; these are possibly in part pore-areas, but we have not succeeded in demonstrating the fact, and have offered below what seems to be a more likely explanation of their presence. The *Oscula* are in the centres of similar looking areas and are thickly fringed by radiating brushes of tylote spicules, which occur chiefly in this position and also, in fewer numbers, in the circular areas above mentioned. *Pores* (?).

Skeleton.—(a) *Dermal*; a close, irregular reticulation of large stylote spicules similar to those of the main skeleton, with a small admixture of tylota.² Within a certain radius of the oscula the stylote spicules abruptly and entirely disappear and give place to thick brushes of the tylota; these converge towards the osculum, the margin of which is fringed by the free ends of the terminal spicules of the brushes. The stylote spicules are also absent from the circular areas above described, their place being taken by a few tylota which sometimes show an incipient radiate arrangement; from these considerations it seems not improbable that some, at any rate, of the spaces mentioned mark the positions of future oscula. (b) *Main*; this consists of an irregular but close reticulation of stylote spicules in which no fibre is developed.

Spicules.—(a) *Megasclera*; of two kinds. (1) Large, stout styli (Pl. XXVII. fig. 2) usually curved, with rather blunt apex and not infrequently slightly spined; size about 0.7 by 0.031 mm. (2) Tylota (Pl. XXVII. fig. 2a) each with a fairly straight shaft bearing a distinct, though only slightly developed, oval head at each end; entirely smooth; size about 0.4 by 0.008 mm. (b) *Microsclera*; of two kinds. (1) Tridentate isochelæ (Pl. XXVII. figs. 2b, 2c), with stout, strongly curved shaft; length about 0.05 mm. (2) Slender sigmata, simple and contort, varying a good deal in size, up to about 0.056 mm. long.

Unfortunately there is only a single piece of this sponge in the collection, and that in very poor condition. It is encrusted in places by a thin, black, coating sponge

¹ With embedded Polychæte worms, to which the exceedingly cavernous nature may be in part due. One large tunnel penetrates right through the sponge, which is perhaps only a fragment.

² It is possible that the tylota alone form the true dermal skeleton and that the styli are merely an upper layer of the main skeleton; this would explain the absence of styli immediately around the oscula. Compare with this the dermal skeleton in *Myxilla cribrigera*, nobis.