

spicula," Bk.), but more spined at the base than elsewhere; usually curved, finely pointed; verging upon tylostylote; size up to about 0.2 by 0.0084 mm. (3) Very slender tylota, with very slightly developed heads, not spined nor flattened at the ends; size up to about 0.32 by 0.0047 mm. (4) Tridentate isochelæ,¹ with strongly curved shaft and divergent teeth; length about 0.04 mm.

The points in which Bowerbank's species differs from *Myxilla nobilis* will be readily seen by comparison of the descriptions; they concern more especially the form of the larger stylus and of the tylote spicule.²

Myxilla frondosa, Ridley and Dendy (Pl. XXVI figs. 1, 1a; Pl. XXVII. figs. 10, 10a, 10b, 10c, 10d, 10e, 10f).

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

Sponge (Pl. XXVI. figs. 1, 1a) represented by a single broad, flattened frond, of somewhat oval shape, about 6 mm. thick, 100 mm. in height and 62 mm. in breadth. It has evidently grown in an erect position. *Colour* in spirit rather dark, yellowish-grey. *Texture* tough, fibrous, elastic. *Surface*, on one side, which is slightly convex, very rough, owing to the presence of thickly placed, small conuli, between which are the oscula. The other side is much smoother, the conuli are not so strongly pronounced, and the dermal membrane stretches over them continuously except where it appears to have been rubbed off. *Dermal membrane* distinct, thin and transparent. *Oscula* very numerous, small, round and thickly scattered over the convex surface, to which they appear to be confined; about 1 mm. in diameter. *Pores* very numerous, scattered, rounded openings in the dermal membrane on the concave surface, diameter variable, averaging about 0.2 mm. We have seen no pores on the other surface of the sponge.

Skeleton.—(a) *Dermal*; consisting of tylote spicules, which are for the most part irregularly scattered through the dermal membrane but are sometimes found in loose tufts. (b) *Main*; a very highly developed and compact reticulation of coarse, branching and sometimes anastomosing spiculo-fibre. The main lines of the skeleton, starting from the base, branch upwards in a dendroid manner, with their ramifications lying mainly in one plane, and giving off, approximately at right angles to this plane, very numerous, short branches which end in the conuli on the surface of the sponge. The fibre itself is stout and consists of closely placed styli which have their bases in the centre of the fibre and their apices directed very obliquely outwards and free, pointing towards the direction in which the fibre is running; there seems to be very little cementing substance uniting the spicules.

Spicules.—(a) *Megasclera*; (1) Entirely, but only slightly spined styli (Pl. XXVII.

¹ The figure of this spicule given by Bowerbank (Mon. Brit. Spong., vol. iii., pl. xxxvii. fig. 8) appears to us to convey a very erroneous idea of its true shape.

² Cf. Bk., Mon. Brit. Spong., vol. iii., pl. xxxvii. figs. 5, 6.