

Genus *Meliiderma*,¹ n. gen. (Pls. XX., XXI.).

1886. *Chondrocladia* (*pars*), Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 344.

Sponge stipitate. Megasclera stylote to tylostylote. Microsclera, isochelæ of the ordinary *Chondrocladia* form, to which may be added sigmata. In addition to these forms of spicules a special protective spicule occurs encrusting the stem, each spicule consisting of a slightly expanded base of attachment, a constricted neck, and a fusiform, outwardly projecting shaft, terminating in a pointed apex (*vide* annexed woodcut, Fig. 6).

This genus stands in much the same relation to *Chondrocladia* as does *Axoniderma* to *Cladorhiza*, having, like *Axoniderma*, developed a special spicule for external defensive purposes. The form of the extra spicule is, however, totally different in the two cases; and in *Meliiderma* it appears to be confined to the stalk, while in *Axoniderma* it is most abundant in the body of the sponge. In both these cases it is very difficult to say whether the extra spicule ought to be classed amongst *megasclera* or *microsclera*; for the sake of convenience both will here be regarded as *microsclera*, though standing on quite a different footing from other *microsclera*. The form of the extra *microsclera* in *Meliiderma stipitata* is as yet unparalleled. From their resemblance to spears or darts we have derived the generic name.

Meliiderma stipitata, Ridley and Dendy (Pl. XX. fig. 11; Pl. XXI. figs. 6, 6a, 6b, 6c, 14).

1886. *Chondrocladia stipitata*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 344.

Sponge (Pl. XX. fig. 11) consisting of a spherical head perched on the end of a long stalk, which in the one perfect specimen is much bent. Diameter of head about 12 mm. Length of stalk in the perfect specimen, 25 mm., diameter about 2 mm. At the base the stalk terminates in a flattened expansion which is firmly attached to a fragment of black volcanic cinder. Colour in spirit pale yellow. Texture of head soft. Surface hispid. Dermal membrane fairly distinct.

Skeleton.—There is no dermal reticulation, and the main skeleton consists chiefly of a very dense band of spiculo-fibre, forming the greater part of the stem; this penetrates the spherical head for a short distance and then expands slightly into a knob-like extremity, from which radiate thin bands of loose spiculo-fibre in all directions, running vertically to the surface. Numerous spicules project for some distance beyond the surface of the sponge, giving to it its hispid appearance.

Spicules.—(a) *Megasclera*; of one kind only, viz., long tylostyli (Pl. XXI. figs. 6, 6a, 6b, 6c), often a little crooked, measuring up to 2.2 by 0.038 mm.; head, as a rule, only very slightly indicated, apex sharply pointed; the spicules are broadest in the

¹ Greek *μηλιά*, a spear, and *δέρμα*, the skin.