

*Thrinacophora cervicornis*, Ridley and Dendy (Pl. XXXVI. fig. 1; Pl. XL. figs. 4, 4a).

1886. *Thrinacophora cervicornis*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 483.

Sponge (Pl. XXXVI. fig. 1) erect, branching dichotomously, subcylindrical, flattened towards the points of furcation; altogether much resembling a stag's antler. Total height 175 mm.; diameter of stem about 6 mm., of branches about the same or a little less. *Colour* in spirit greyish-yellow. *Texture* firm and tough, stem and branches flexible and very elastic. *Surface* beset with minute monticular eminences, so as to resemble the surface of a coarse file; from each of these eminences there projects, where the surface is uninjured, a single, very long, setiform spicule, extending for 3 or 4 mm. beyond the surface.

*Skeleton*.—When the sponge is microscopically examined it is readily seen that it possesses a thick central axis of horny consistency and appearance, which gives to it its firm and elastic character, and which is surrounded by a comparatively thin external coat of choanosome which readily peels off. After mounting in balsam the horny matter is no longer apparent, and in the place of the central axis we see a dense reticulation of short oxeote spicules, appearing almost uniserial in arrangement, without any distinct fibre. It is this dense reticulation of spicules, all united together by horny cementing material, which gives rise to the central axis. In the soft layer which coats the axis there are numerous long and very slender oxeote and stylote spicules, arranged longitudinally, but in no definite order; the short oxea also occur scattered in a similar manner outside the axis. We have already mentioned the very large, setiform (stylote) spicules, which project for a long distance beyond the surface of the sponge and give rise to a coarse hispidity; these have their bases embedded in the central axis, from which they project at right angles; each one as it leaves the sponge is surrounded by a whorl or tuft of divergent spicules of very much smaller size. These are very slender styli (? occasionally oxea), whose divergent ends project for a short distance beyond the dermal membrane. Sometimes two of the large styli come out together.

*Spicules*.—(a) *Megasclera*; (1) short, stout oxea (Pl. XL. fig. 4, b), rather abruptly and usually very sharply pointed, occasionally unequal-ended, with the large end very blunt; size about 0.28 by 0.018 mm.; occurring mainly in the axis and forming the greater portion of the skeleton. (2) The long, smooth styli projecting from the surface; these are almost straight and measure about 5.2 by 0.037 mm. (3) The straight, smooth, slender styli (Pl. XL. fig. 4, a) projecting in whorls around the last mentioned; these are usually sharply pointed, but sometimes become blunted at the apex; size about 0.52 by 0.0075 mm. The long, slender oxea, styli and strongyla, longitudinally disposed in the choanosome, are to be regarded merely as slight varieties of (3) and measure about the same. (b) *Microsclera*; trichodragmata (Pl. XL. fig. 4a), fairly plentifully