

for want of a better one in which to put it; it is not unlikely that it may form the type of a new genus.

Mr. Carter¹ has described a sponge which appears to be related to our *Amphilectus ceratosus*. His *Suberites fistulatus* (the claims of which to the generic name *Suberites* are of the very faintest description, being, according to the author, "its cavernous and cork-like consistence") possesses tylote megasclera with microspined ends, and palmate, isochelate microsclera; as regards the presence or absence of horny fibre and the arrangement of the skeleton nothing is said. This sponge is also said to possess "long tubular extensions of different sizes," which "are prolonged from large vents." There can be little doubt that the species are distinct, despite the very similar spiculation.

Locality.—Off Port Jackson; depth, 7 fathoms. Three specimens.

Amphilectus pilosus, Ridley and Dendy (Pl. XIX. figs. 5, 5', 5a, &c.; Pl. XXV. fig. 3).

1886. *Amphilectus pilosus*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 350.

There are in the collection two specimens which we unite under the above name. As the smaller is a poor, dried-up specimen our description will be taken from the larger, which is in good condition.

Sponge (Pl. XXV. fig. 3) lobate, consisting of a short, stout peduncle, about 13 mm. in diameter, expanding above into a single broad, thick lobe about 63 mm. broad and 19 mm. thick; total height of sponge, 81 mm. *Colour* in spirit dark chocolate-brown.² *Texture* very coarse and hairy, but rather compact. *Surface* pilose and shaggy, beset with tufts of large, projecting spicules; furrowed by deep longitudinal grooves which are not hairy like the rest of the surface. *Dermal membrane* distinct only in the grooves; deeply pigmented like all the rest of the sponge. *Oscula* small, scattered, partly in the grooves.

Skeleton.—In the dermal membrane, where this can be distinguished, are found a few irregularly strewn tylota, together with a few large styli, and very long, thin oxea. The main skeleton is irregular in the extreme; coarse, loose and very ill-defined bands of spiculo-fibre run towards the surface, where they terminate in the shaggy tufts of spicules; these represent the primary lines and they are crossed in all directions by loosely scattered spicules. There is very little horny uniting substance. In the peduncle the skeleton becomes much more dense, but is still very indefinite.

Spicules.—(a) *Megasclera*; (1) Tylota, with long, straight, slender shaft and fairly well developed heads, usually flattened and slightly and minutely spined at the ends; size

¹ Ann. and Mag. Nat. Hist., ser. 5, vol. ix. p. 53.

² Possibly stained by other specimens in the same bottle.