

Siphonochalina annulata, Ridley and Dendy (Pl. VII. fig. 2).

1886. *Siphonochalina annulata*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 331.

Sponge (Pl. VII. fig. 2) rooted, stipitate, ramose. Branches long, tubular, rather slender, very distinctly annulated, often anastomosing with one another. Mode of branching irregular. Root large and much branched; stem short and slender. The largest specimen measures about 300 mm. in total height, including the root. The branches average a little over 12 mm. thick at the centre of each joint; and each joint is commonly a little less than 12 mm. long, though in this respect there is considerable variability. *Colour* in spirit doubtful (now a rusty red, but this may be due to the specimen having been packed in an iron box). *Texture* soft and spongy, but tough and fibrous. *Surface* glabrous. *Dermal membrane* very thin and transparent, firmly adherent to the underlying tissues. *Oscula*; there is one large circular osculum at the summit of each branch.

Skeleton.—(a) *Dermal*; a reticulation of rather stout spiculo-fibre, containing a very large proportion of horny matter and few spicules, abundantly echinated by outwardly projecting tufts of spicules. (b) *Main*; a feebly-developed, subrectangularly-meshed reticulation of spiculo-fibre, about 0.07 mm. in diameter, cored by spicules arranged polyserially; the rectangular character of the reticulation, as is very commonly the case, becomes lost in the deeper parts of the sponge.

Spicules.—Slightly curved, subfusiform oxea, sharply and rather gradually pointed, measuring about 0.1 by 0.0065 mm.

The most characteristic feature of this species is its external form, and more especially the extent to which the annulation of the branches, a not uncommon feature in Chalinine sponges, is carried. It is distinguished by this character and by the greater length of the branches from *Siphonochalina tubulosa*, Esper, and *Siphonochalina intermedia*, nobis.

Locality.—Station 162, April 2, 1874; lat. 39° 10' 30" S., long. 146° 37' 0" E.; Bass Strait; depth, 38 fathoms; bottom, sand and shells. Two specimens.

Family II. HETERORRHAPHIDÆ.¹

1886. *Heterorrhaphidæ*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 332.

Megasclera of various forms; microsclera commonly present, but never chelæ.

Subfamily 1. PHLÆODICTYINÆ.

1882. *Phlæodictyina*, Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. x. p. 117.

Sponge massive, consisting of a central, usually more or less globular, solid body, with closed (? or open) tubular processes (fistulæ) projecting from it. Free or attached. With a well-marked external rind, composed of an outermost, thin but distinct, transparent

¹ ἕτερος, different; ἄσπις, needle.