

Spicules.—(a) *Megasclera*; doubtful. (b) *Microsclera*; two kinds are present. (1) Very numerous palmate anisochelæ of the characteristic *Iophon* type, 0·0145 mm. long; these spicules are frequently arranged around the walls of the canals, with the small end sticking into the wall and the larger end projecting into the cavity. They also occur very abundantly in the dermal layer. (2) A very few small bipocilli (? foreign).

It is, of course, very difficult, amongst such a number of foreign spicules of almost all sorts and sizes, to pick out just the ones which are proper to the sponge itself; hence it is with some hesitation that we refer this species to the genus *Iophon*.

The most abundant spicules, and those which are most certainly proper to the sponge, are the anisochelæ. The sand grains occur chiefly in the deeper parts of the sponge. They appear to be arranged, together with the other foreign bodies, without any definite order, and to take the place of the proper megasclera. The figure (Pl. XVII. fig. 10) will give some idea of the arrangement of the foreign bodies—chiefly sponge spicules—in the dermal layer.

In its collecting habit this sponge agrees closely with Marshall's *Phoriospongia*,¹ and it seems to us very probable that individual species out of several distinct genera have acquired the same habit of replacing their proper skeleton with a skeleton of foreign bodies. This is sufficient to distinguish the species unmistakably from all others as yet known of the genus *Iophon*.

Locality.—Station 163A, April 4, 1874; lat. 36° 59' S., long. 150° 20' E.; off the south-east coast of Australia; depth, 150 fathoms; bottom, green mud. One small specimen.

Genus *Amphilectus*, Vosmaer (Pls. XIX., XXV., XLVII.).

1880. *Amphilectus*, Vosmaer, Notes from the Leyden Museum, vol. ii. p. 109.

We make use of this genus in the manner indicated by its founder, namely, as a provisional receptacle for a number of doubtful Desmacidonidæ (Esperellinæ).

As regards the diagnosis and history of the genus we quote Vosmaer's later remarks on the subject.² "Stabnadeln glatt oder (und) gedorn't. Dazu Anker oder (und) Schaufeln mit gleichen oder ungleichen Enden; eventuell auch Bogen und Haken. Sponginmasse sehr wechselnd. Kosmopolitisch;" this, of course, would include pretty well every species of Desmacidine, and Vosmaer continues:—"Es ist *Amphilectus* nur ein vorläufiges Aushilfe-Genus, wo alle diejenigen Desmacidinen untergebracht sind, von welchen keine besondere Merkmale bekannt sind, wodurch sie zu einer anderen Gattung kommen sollten." As such we accept it, but we have not made it quite so comprehensive as Vosmaer has done, and we include in it here only such Esperellinæ as possess isochelate microsclera and (usually) stylote megasclera, to which other forms of spicules.

¹ *Zeitschr. f. wiss. Zool.*, Bd. xxv. p. 122.

² Bronn's *Klass. u. Ordn. des Thierreichs, Porifera*, 1865, p. 353.