

may be added; we are thus able to reduce its bulk very considerably, but even thus limited the genus is not a natural one.

Esperiopsis, Carter, as emended by us (above, p. 76) forms a natural genus which we have felt able to remove from the general mass of such sponges as Vosmaer unites under the name *Amphilectus*, and as our knowledge of the Desmacidonidæ increases it will no doubt become necessary similarly to detach other groups.

Amphilectus apollinis, Ridley and Dendy (Pl. XIX. figs. 3, 3a, 3b, 3c).

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

Sponge massive, amorphous, cavernous. The largest specimen is oval, cake-shaped; about 50 mm. long by 38 mm. wide and 19 mm. thick. *Colour* in spirit light greyish-yellow. *Texture* rather soft and spongy. *Surface* very uneven, deeply folded, slightly glabrous in places where the dermal membrane remains uninjured. *Dermal membrane* fairly distinct. *Oscula* (?).¹

Skeleton.—(a) *Dermal*; in some parts there is a very distinct, but confused, dermal reticulation of slender stylote spicules, while in other parts this appears to be scarcely represented. (b) *Main*; a confused Halichondrioid reticulation of stout, stylote spicules.

Spicules.—(a) *Megasclera*; of one kind only, but of two distinct sizes. (1) Stout, slightly curved, smooth styli (Pl. XIX. fig. 3), size about 0.5 by 0.0168 mm.; making up the main skeleton. (2) Slender, straight styli (Pl. XIX. fig. 3a), very sharply and gradually pointed, often very slightly spined at the base and with a slight tendency to become tylostylote; size about 0.315 by 0.0063 mm., almost entirely confined to the dermal layer. (b) *Microsclera*; of two kinds—(1) small palmate isochelæ (Pl. XIX. fig. 3c); length about 0.015 mm.; very abundant. (2) Large toxa (Pl. XIX. fig. 3b), of very beautiful form and with spined ends, size of the full-grown spicule about 0.3 by 0.0045 mm.; very abundant; the specific name has reference to them.

Vosmaer² has founded a genus *Artemisina* (*vide supra*) of which the most characteristic spicule is a toxite with spined ends³ like that which occurs in *Amphilectus apollinis*. Possibly the two species *Artemisina suberitoides*, Vosmaer, and *Amphilectus apollinis*, nobis, come near to one another and may even belong to the same genus, but they differ very widely in the texture of the sponge, and our present species possesses an additional form of megasclera (*viz.*, the slender stylus with spined base) not present in *Artemisina*.

The presence of spined toxa, taken alone, is certainly not a character of generic importance, for such spicules occur in several species that are widely distinct from one

¹ Both specimens are infested by very numerous small *Amphipoda* which live just below the surface, often causing it to be deeply pitted, but these pits must not be mistaken for oscula.

² Sponges of the "Willem Barents" Expedition, 1881-82, p. 25.

³ *Loc. cit.*, pl. v. fig. 51.