

here for the first time describes and figures the peculiar chelate spicule, but makes no mention of such spicules in Johnston's sponge, nor does Johnston himself mention them in his original description (*loc. cit.*). Fortunately, Mr. H. J. Carter<sup>1</sup> has found these spicules in Johnston's type in the British Museum, and thus the identification of Bowerbank's with Johnston's species is confirmed; though Mr. Carter places them both in the genus *Chalina*. Dr. Gray in his remarkable paper in the Proceedings of the Zoological Society of London (May 1867), appears to recognise the fact (which is undoubtedly true) that Dr. Bowerbank's genus *Isodictya* is much too comprehensive; he therefore very wisely splits the genus up into several genera, but unfortunately in so doing he retains the name *Isodictya* for two of these distinct genera, giving to each a distinct generic diagnosis. With his first genus *Isodictya* (*loc. cit.*, p. 512) we have here nothing to do. Of his second (p. 534) he gives the following diagnosis. "Sponge sessile, minutely hispid, regularly reticulated. Spicules of three kinds:—1. Needle-shaped, fusiform. 2. Bihamate, bicalcarate (Bowerb., f. 121). 3. Equianchorate or palmate." Of this genus he gives *Isodictya normani*, Bowerbank, as the type, and says, "see also . . . . *I. palmata*, Bowerb." Unfortunately *Isodictya palmata*, Bowerbank, has only two kind of spicules.

Dr. Ehlers (Die Esper'schen Spongien, p. 16) identifies Esper's old species, *Spongia digitata*,<sup>2</sup> with Johnston's *Halichondria palmata* and Bowerbank's *Isodictya palmata*. He recognises (pp. 35, 36) that both Gray's genera *Isodictya* cannot stand, and creates for Esper's species, *digitata*, the new genus, *Homæodictya*, without, however, giving a fresh generic diagnosis, and apparently intending the new genus to replace Gray's second *Isodictya*.

Here, then, arises a considerable uncertainty as to the correct nomenclature, not only of the genus, but also of the species known as *palmata*.

For the present we retain the name *Homæodictya* for the subgenus, and include therein only three species, viz., *Desmacidon (Homæodictya) palmata*, Johnst. (? = *Spongia digitata*, Esper), and the two new species *Desmacidon (Homæodictya) kerguelensis*, nobis, and *Desmacidon (Homæodictya) grandis*, nobis, all characterised by the peculiar form of the isochelate microsclera.

The above does not pretend to be a complete history of the subgenus, which time and space do not permit, and it will be seen by reference to Johnston (*loc. cit.*) that there is still a considerable amount of literature to which we have not alluded. It appears to us that the characters separating the three species of *Homæodictya* from *Desmacidon* are only of subgeneric value, one very strong piece of evidence in favour of this view being the intermediate position of *Desmacidon conulosa*, nobis.

The peculiar backward process of the anterior palm of the chelate spicule is a

<sup>1</sup> *Ann. and Mag. Nat. Hist.*, ser. 5, vol. x. p. 110.

<sup>2</sup> Esper, *Die Pflanzthiere*, Fortsetzungen, i. p. 190, pl. 1.