

(1861). In 1864 Dr. Bowerbank<sup>1</sup> (first) defined the genus correctly, assigning to it *Spongia oculata*, Pallas, as its type species. Schmidt therefore appears to me to be in the wrong when he (Spong. Atlant. Gebiet., p. 32) removes this species to his genus *Chalinula*, of 1868, and restricts *Chalina* to species which have the habitus of *Euspongia* and *Cacospongia*.”<sup>2</sup>

We have now come to the conclusion that the characters of the genus *Chalina* should be made to depend rather upon the structure and arrangement of the fibre than upon any mere growth form. Thus we should now include in the genus recent species, such as *Chalina rectangularis*, nobis, which would formerly have come under the genus *Acervochalina*, and forms like *Chalina pergamentacea*, Ridley, which have hitherto been assigned to *Cladochalina*.

*Chalina palmata*, Lamarck, sp. (Pl. V. fig. 4).

1813. *Spongia palmata*, Lamarck, Ann. Mus. Hist. Nat. Paris, vol. xx. p. 453.

Sponge (Pl. V. fig. 4) of erect habit; much branched, palmo-digitate; branches compressed. The single specimen in the collection measures 68 mm. in height by 100 in breadth. Colour in spirit pale yellow. Texture soft and spongy, tough and fibrous. Surface fairly even, very slightly hispid; with a reticulate appearance due to the underlying structures appearing through the thin, transparent dermal membrane. The dermal membrane itself has also a very minutely reticulate appearance due to the dermal skeleton fibres. Oscula small, round, irregularly scattered, averaging a little over 1 mm. in diameter. Pores, rounded openings, varying considerably in size, scattered very profusely through the dermal membrane.

*Skeleton*.—(a) *Dermal*; a triangularly and polygonally-meshed reticulation of very thin spiculo-fibre. The fibre contains a very large proportion of horny matter, and has a core of slender oxete spicules uni- or biserially arranged; the fibre is also “armed” with oxete spicules stuck through it more or less at right angles. (b) *Main*; composed of a rectangularly-meshed reticulation of stouter fibre, containing a very large amount of horny matter, but with a core of slender oxete spicules arranged in the primary fibres polyserially (not strictly parallel but in a somewhat plumose manner), but in the secondary, crossing fibres, usually only uni- or biserially.

*Spicules*.—Small, usually slightly curved oxea, measuring about 0·077 by 0·0024 mm.

The most characteristic features of this species are its external form and the arrangement of the dermal skeleton.

We have satisfied ourselves fairly well, by examination of Lamarck’s probable type in the Jardin des Plantes, that ours is the same species, but as it has never been thoroughly described, we give a full description. Lamarck’s *Spongia palmata* is not to be confused

<sup>1</sup> Mon. Brit. Spong., vol. i. p. 208.

<sup>2</sup> Ridley, Zool. Coll. H.M.S. “Alert,” Brit. Mus., 1884, p. 393; Cf. also Vosmaer, Bronn’s Klass. u. Ordnung des Thierreichs, Porifera, pp. 211, 341.