

## Order I. CHORISTIDA, Sollas.

*History.*—The first tendency towards a segregation of the Choristida from chaos appears in Oscar Schmidt's work on the Sponges of the Adriatic.<sup>1</sup> Here we find, together with one Monaxonid genus (*Tethya*), four genera of Choristida (*Stelletta*, *Caminus*, *Geodia*, and *Ancorina*), gathered together into a single family, the Corticatæ, and one more (*Corticium*) in another family—the Gummineæ.

In the third<sup>2</sup> supplement to this work Schmidt instituted another Choristid genus, *Pachastrella*, which, though placed in a third family, the Compaginaæ, is shown to be related to the Corticatæ and Gummineæ.

In his next work<sup>3</sup> Schmidt recognised that the cortex has not that value which he at first assigned to it, so that the family Corticatæ is there definitely abandoned, and all the Choristid Sponges there described appear in two families, the Ancorinidæ, which includes the following genera:—*Pachastrella*, *Sphinctrella*, *Tetilla*, *Craniella*, *Ancorina*, and *Stelletta*; and the Geodinidæ, which includes the following:—*Geodia*, *Pyxitis*, *Caminus*, and *Placospongia*. Further the genus *Corticium* is removed from the Gummineæ and placed with the Sponges characterised by anchor-like spicules, a roundabout expression, as here used, for our Choristida.

In the system of the Sponges proposed by Carter<sup>4</sup> the Choristid Sponges are collected into two closely related families, in one of which, however, the Lithistida are also included; these are the Pachytragidæ, which contains our families Geodiidæ, Stellettidæ, and Tetillidæ; and the Pachastrellidæ, which contains our Lithistida and Pachastrellidæ. But for the association of the Lithistids too closely with the Pachastrellids this classification exhibits an advance upon Schmidt's, since the difference between the Geodiidæ and the Stellettidæ is not so wide as Schmidt's system implies, and these two families may well be grouped together; the recognition of the Tetillidæ as forming a group apart from the other members of Schmidt's Ancorinidæ is also justified by later observations; the inclusion of the Lithistids with the Pachastrellidæ, though going too far, errs in the right direction, for it correctly indicates that the Lithistids are more closely allied to the Pachastrellids than to any other Sponges.

Marshall having included the Sponges of Carter's two families into the single large group, Tetractinellida, the separation of the Choristids from this was made as already indicated by Sollas.

In his latest work<sup>5</sup> Schmidt definitely abandoned the Ancorinidæ and Geodiidæ as distinct families, and adopted the group Choristida, but under the name Tetractinellida.

The Choristida, by whatever name we know them, having thus become definitely

<sup>1</sup> O. Schmidt, Spong. Adriat. Meeres, pp. 37, 42, 43, 81, 87, 1862.

<sup>2</sup> O. Schmidt, Spong. d. Küste v. Algier, p. 40, 1868.

<sup>4</sup> Carter, *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xvi., 1875.

<sup>3</sup> O. Schmidt, Spong. Atlant. Gebiet., p. 64, 1870.

<sup>5</sup> O. Schmidt, Spong. Meerb. Mexico, pt. ii. p. 68, 1880.