

With this simplification proceeds a diminution in the size of the desma, so that in the *Rhabdosa* and in the *Anoplia* it is much smaller than in most of the Triænosæ. In the *Anoplia* ectosomal spicules have disappeared, but the desma is still rhabdocrepid in the Azoricidæ; in the Anomocladidæ, however, even the crepis disappears, and we are left with a skeleton of acrepid desmas and rhabdi. It is worthy of note that, notwithstanding the simplification attained by *Vetulina*, the only existing Anomocladid, the mass of its skeleton as compared to that of the sponge is larger than in any other Lithistid, probably larger than in any other known sponge.

A summary of the foregoing classification and an account of families and genera will now be given:—

### Tribe TTRACTINELLIDA, Marshall.

*Ttractinellida*, Marshall, Zeitschr. f. wiss. Zool., Bd. xxvii. p. 134, 1876.

Demospongiæ in which triæne or tetraxon megascleres, or Lithistid desmas, are present.

These characters fail in a single family, the Placospongidæ, with a single genus, *Placospongia*; this is included in the Ttractinellida on account of the presence of sterrasters, which are not known in any other Sponge outside the Ttractinellida.

### Order I. CHORISTIDA, Sollas.

*Choristida*, Sollas, Ann. and Mag. Nat. Hist., ser. 5, vol. vi. p. 386, 1880.

Ttractinellida in which Lithistid desmas are absent, and the megascleres are never articulated to form a coherent skeleton.

### Suborder I. SIGMATOPHORA, Sollas.

*Sigmatophora*, Sollas, Article "Sponges," Encyclopædia Britannica, vol. xxii. p. 423, 1887.

Choristida in which the microsclere, when present, is a sigmaspire.

### Family I. TETILLIDÆ, Sollas.

Group *Tethyina*, Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xvi. p. 67, 1875.

*Tetillidæ*, Sollas, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 178, 1886.

*Historical*.—The earliest described species of Tetillid Sponge is *Craniella (Alcyonium) cranium*, Müller.<sup>1</sup> This was subsequently associated by Lamarck with a Monaxonid Sponge, *Tethya lyncurium*, in the same genus *Tethya*, Lamarck.<sup>2</sup> That *Tethya cranium* and *Tethya lyncurium* are generically different was first recognised by Gray,<sup>3</sup> on whom devolved the responsibility of finding a new name for one of them. *Tethya lyncurium*

<sup>1</sup> Müller, Zool. Dan., pl. lxxxv. fig. 1, 1789.

<sup>2</sup> Gray, Proc. Zool. Soc. Lond., p. 543, 1887.

<sup>3</sup> Lamarck, *Mém. d. Mus.*, t. i. p. 71, 1815.