

established as a natural group, our succeeding account will have reference to its subdivision into smaller groups; the first to attempt this was Vosmaer,<sup>1</sup> who proposed the following classification:—

Suborder Tetractina.

Family I. Geodiidæ (Genera—*Geodia*, *Isops*, *Synops*, *Pachymatisma*, *Cydonium*, *Caminus*).

Family II. Ancorinidæ (Genera—*Stelletta*, *Papyrula*, *Ecionema*, *Theneca*, *Dercitus*, *Agardiella*, *Sphinctrella*, *Ancorina*, *Tribrachion*, *Tethyopsis*, *Tricentrum*, *Ophiraphidites*, ? *Craniella*, *Tetilla*).

Family III. Placinidæ (Genera—*Placina*, *Placortis*, *Placinastrella*).

Family IV. Corticidæ (Genus—*Corticium*).

The adoption of Schulze's family Placinidæ, and the addition of the Corticidæ, I recognise as necessary, but it is hard to see on what grounds Schmidt's two families, the Geodiidæ and Ancorinidæ, are retained, either both should have been merged into one, or the Ancorinidæ should have been broken up and its members redistributed; for the Geodiidæ, although they are conveniently regarded as a natural family, are distinguished from the Stellettidæ by a single character only, the possession of the sterraster, and these two groups are much more closely allied together than the members of the Ancorinidæ are to each other; but what makes the retention of this family all the more inexplicable is the fact that Carter<sup>2</sup> long ago recognised its unnatural character, and separated from it the Tetillidæ, Theneidæ, and Pachastrellidæ, as groups of equivalent value to the Geodiidæ. It is true that Carter did not call these groups families, but subfamilies, but this is a point of no consequence, any more than the fact that to the Tetillidæ Carter gave the name Tethyina.

In my preliminary account on the Challenger Tetractinellida I proposed a different arrangement<sup>3</sup> to that which is now adopted in this Report. The following is a short summary of that classification:—

Order I. Choristida.

Suborder I. Tetradina.—The characteristic spicules are calthrops, candelabra, amphitriænes, or modified triænes.

Family I. Placinidæ.—The chamber-system is eurypylous. Candelabra are present.

Family II. Pachastrellidæ.—The chamber-system is either eurypylous or aphodal. The spicules are simple calthrops.

<sup>1</sup> Vosmaer, Bronn's Klass. u. Ord. d. Thierreichs, Porifera.

<sup>2</sup> Carter, *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xvi., 1875; ser. 5, vol. xi. p. 362, 1883.

<sup>3</sup> Sollas, *Sci. Proc. Roy. Dubl. Soc.*, N.S., vol. v. p. 177, 1886.