

Genus 1. *Placospongia*, Gray.*Placospongia*, Gray, Proc. Zool. Soc. Lond., pp. 127-129, 1867.

The only genus of the family.

Type—*Placospongia melobesioides*, Gray (p. 271).

That no little doubt should exist with regard to the systematic position of this remarkable family is only natural. Tylostyles do not occur as essential spicules in any other Tetractinellid Sponge, while they are characteristic of the monaxonid family Suberitidæ; there is something, therefore, especially as triænes are absent, to be said for Carter's view, according to which they should be placed with the last-named family. The tylostyle is not, however, so characteristic and differentiated a spicule as the sterraster, hence I prefer to follow Gray in grouping the family with the Geodiidæ.

## Suborder III. MICROSCLEROPHORA, Sollas.

*Tetradina*, Sollas (*pars*), Sci. Proc. Roy. Dubl. Soc., vol. v. p. 177, 1886.*Microsclerophora*, Sollas, Article "Sponges," Encyclopædia Britannica, vol. xxii. p. 423, 1887.

Choristida in which megascleres are absent; the characteristic microscleres are either tetractinose asters, candelabra, or minute triænes.

In my preliminary report the *Tetradina* formed the first suborder of the Choristida, and included the Pachastrellidæ; on the removal of this family to the Streptastrosa, with which it should evidently be associated, the *Tetradina* ceases to be a distinctive name, but the essential character of the group, as one in which the microscleres have not yet given rise to megascleres, is brought into prominence; hence the change in name and definition.

## Family I. PLACINIDÆ, F. E. Schulze.

*Plakinidæ*, F. E. Schulze, Zeitschr. f. wiss. Zool., Bd. xxxv. p. 407, 1880.

Microsclerophora with tetractinose, triactinose, and diactinose asters, and sometimes mono-, di-, or trilophous candelabra. The chamber-system is either eurypylous or aphodal; the mesoderm chiefly collenchymatous. The Sponge is divided into a hypomere and spongomere.

Genus 1. *Placina*, F. E. Schulze.*Placina*, F. E. Schulze, Zeitschr. f. wiss. Zool., Bd. xxxiv. p. 448, 1880.

Incrusting Sponges, with one or more oscular tubes projecting from the free surface. Ectosome not differentiated. Chamber-system eurypylous. Mesoderm scanty, entirely