

Family I. GEODIIDÆ, Gray.

Geodiadæ, Gray, Proc. Zool. Soc. Lond., pp. 127, 492, 1867.

Geodinidæ, O. Schmidt, Spong. Atlant. Gebiet., p. 68, 1870.

Geodina, Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xvi. p. 66, 1875.

Geodidæ, Vosmaer, Bronn's Klass. u. Ord. d. Thierreichs, Porifera, p. 315, 1887.

History.—The earliest described Choristid Sponge (*Cydonium mulleri*, Fleming) belongs to this family; it was faithfully figured by Donati in 1750. The genus which has given its name to the family is *Geodia*, Lamarck, of which Lamarck described a single species, *Geodia gibberosa*.¹ In his earliest work O. Schmidt² included the genus *Geodia* with the Corticata, but when this group was dissolved a family Geodiadæ was formed to receive the Geodine Sponges, this family and the Ancorinidæ together including all the Choristid Sponges known to O. Schmidt. Gray, however, had previously proposed a family Geodiadæ which only differed from that of Schmidt by the exclusion of the genus *Placospongia*, Gray, for which a special family, the Placospongiadæ, was instituted. Although Schmidt gives an account of *Placospongia* in his description of Atlantic Sponges, I do not think he can have had a very intimate acquaintance with it, or he would scarcely have laid so much stress on the supposed absence of triænes in *Caminus* when the case was so much clearer in *Placospongia*, which is not only devoid of triænes but of oxeas as well, these spicules being replaced by tylostyles; perhaps a still more remarkable feature in this Sponge is the replacement of euasters by spirasters; Gray being well aware of these facts, was fully justified in excluding *Placospongia* from the Geodiidæ.

Gray's classification of the Sterrastrosa shows great insight and judgment. Omitting the definitions, which are not felicitous, it is as follows:—

Family I. Geodiadæ.

Genus 1. *Pachymatisma*, Bwk.—*Pachymatisma johnstonia*, Bwk.

2. *Geodia*, Lamk.—*Geodia gibberosa*, Lamk.

3. *Cydonium*, Fleming—Gray wrongly quotes *Cydonium barretti*, Bwk. (which is a *Geodia*), as an example, the type is *Cydonium mulleri*, Fleming.

4. *Erylus*, Gray—*Erylus mammillaris*, O. Schmidt.

5. *Triate*, Gray—*Triate discophora*, O. Schmidt.

6. *Caminus*, O. Schmidt—*Caminus vulcani*, O. Schmidt.

Family II. Placospongiadæ.

Genus 1. *Placospongia*, Gray—*Placospongia melobesiodes*, Gray.

¹ Lamarck, *Mém. Mus. Hist. Nat. Paris*, t. i. p. 333, 1815.

² O. Schmidt, Spong. Adriat. Meeres, p. 49, 1862.