

Family SPONGIDÆ.

The family of Spongidæ possesses a larger number of genera than any other family among the Keratosa, but it is only in Aplysinidæ that we meet with genera of such conditional characters.

Euspongia, Hippospongia, Cacospongia, Stelospongos.

The genus *Euspongia* has its own history. Established in the year 1859 by Bronn, it has been adopted by O. Schmidt, although not immediately. It was not adopted by Alpheus Hyatt, who returned to the old name of *Spongia*, auctorum, but has been again recalled by F. E. Schulze, although with a certain reserve. Prof. Schulze, though adopting this name as a generic one, still lays stress upon the fact that the genera *Euspongia* (which he characterises by fine skeletal fibres forming very small meshes) and *Cacospongia* (characterised by him as well as by O. Schmidt,¹ from whom it originates, by comparatively thick skeletal fibres and large meshes) are very closely allied to one another, and that with respect to some intermediate forms the question of whether the classifier has to do with a *Cacospongia* or *Euspongia* is to be decided only according to his individual opinion.² One might say that the matter is not so very complicated; one would believe that the *Cacospongiæ* and *Euspongiæ* are divergent branches of the general genealogical tree (in the sense that the skeleton presenting a supporting apparatus for the soft parts, one group of Spongidæ have adopted thick fibres and large meshes, the other fine fibres and small meshes, both kinds of skeleton being thus mechanically perhaps of equal strength), connected by the presence of all possible intermediate stages; that in some thousands of years, when the latter have died out, spongiology will have to deal with two very good genera. The matter is, however, by no means so simple, owing to the fact that each of these genera shows other special modifications, and the genus *Euspongia*, namely, in the direction which leads us to the genus *Hippospongia*, F. E. Schulze³; a *Cacospongia* in order to become a *Stelospongos*, O. Schmidt.⁴ F. E. Schulze characterises his genus *Hippospongia* by the presence of a well-developed system of canals permeating the body of the sponge, often in such a manner that between them only comparatively thin partition-walls can be found, and further, by the absence of primary fibres which are directed in *Euspongia* and *Cacospongia* perpendicularly to the external surface, the latter character being in causal connection with the peculiarity first mentioned; the genus *Stelospongos* was established in 1870, and characterised by the differentiation of the skeletal fibres in separated columns directed in a more or less regular manner radially from the basis of the sponge towards the external surfaces, and consisting each of a compact network of vertical primary and horizontal

¹ Spong. d. adriat. Meer., p. 26.

³ Zeitschr. f. wiss. Zool., Bd. xxxii. p. 614.

² Zeitschr. f. wiss. Zool., Bd. xxxii. p. 612.

⁴ Spong. des atlant. Gebiet., p. 29.