

seen that this genus cannot be adopted. The best thing that could be done would consist in a total disuse both of *Oligoceras* and *Hircinia*.

Finally, as to the Ceratelladæ, I regard their nature as sponges insufficiently proved to speak here of their place in the system. The late Dr. Gray,¹ to whom we owe the first description of these interesting beings, though classing them among the sponges, did so with the greatest reserve, "until their organisation and growth is known. At the same time," he adds, "I know no group of sponges with which they can be compared" (*loc. cit.*, p. 576). In his paper on the "Transformation of an Entire Shell into Chitinous Structure,"² Carter comes to the conclusion that the Ceratelladæ have absolutely nothing to do with sponges. He adopts both the genera distinguished by Gray in his family of Ceratelladæ, but he groups them in that of Hydractiniæ. Hyatt³ is again of quite a different opinion on the matter. He considers the forms in question to be indubitable sponges, and, rejecting Gray's genus *Dehitella*, unites all the Ceratelladæ known to him in the single genus *Ceratella*. Now, so far as my own information goes—and like that of the naturalist before mentioned it is limited to the properties of the skeleton exclusively—I must confess that I can only agree with Mr. Hyatt. There is really in the skeleton of *Ceratella* nothing hydroid or coral-like; "on the contrary, the whole is thoroughly sponge-like." But this opinion can only be scientifically endorsed after an investigation of the structure of the soft parts of the animals in question, and, until we are acquainted with their internal organisation, any discussion as to their systematic place would be premature.

Family APLYSINIDÆ.

Apart from the genus *Dendrospongia*, Hyatt, which, if really to be adopted as an independent genus, may belong to the Darwinellidæ, the family in question contains the genera *Luffaria*, *Verongia*, and *Aplysina*.

Luffaria.

This generic name originated with Duchassaing de Foubressin and Michelotti,⁴ who have described under this designation numerous sponges from the Caribbean Sea. How far these sponges really belong to *Luffaria*, and not to *Verongia* or even *Aplysina*, is very difficult to say, the descriptions of these authors being very superficial. As a matter of fact, it must be stated that they regard the *Spongia fistularis*, Linné—illustrated in Esper's *Pflanzenhiere* (Bd. ii. pls. xx., xxi., xxia.), and the specimen represented on pl. xx. is still in the Museum of Erlangen—as belonging to their newly-created genus

¹ *Proc. Zool. Soc. Lond.*, 1868, p. 575.

² *Revision, &c.*, ii. p. 550.

³ *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xi. p. 1.

⁴ *Spongiaires, &c.*, p. 59.