

stated, from a theoretical point of view it appears to be but of a subordinate character, the possibility is not excluded that the property in question might have been assumed very early (in a palæontological sense), and thus if we should in time find *Ianthellidæ*, *i.e.*, horny sponges whose skeletal fibres are charged with true cells, of thoroughly different internal organisation, we should be obliged to elevate the character in question to the rank of that of a subfamily or even family. But hitherto this has not been the case; all the *Ianthellidæ* known up to this time are only representatives of the same genus, and in order to avoid a superfluous overburdening of spongiological nomenclature, sufficiently overburdened already, I should propose to regard temporarily the genus *Ianthella* as merely a genus of the family Darwinellidæ (Aplysillidæ), the more so as to a similar variation (in the reverse direction, however,) in the Vertebrata¹ no systematic consequence has been ascribed.

This would be the place to discuss the systematic value of the organisms known by the name of "Fibrillen" or "filaments," which for a long time have been considered a constituent part of the horny skeleton. The inducement to this has been given by the statements of Oscar Schmidt, who thought² he had seen filaments in immediate connection with true horny fibres. On the ground of this false supposition he adopted the genus *Hircinia*, Nardo, and characterising it primarily by the presence of filaments, subdivided it into two subgenera; Gray³ in the year 1867, relying on Oscar Schmidt's statements, established a new family "Hircinidæ," characterised by the possession of a, so to speak, double skeleton. There has been however, on the part of other spongiologists, some doubt as to the reliability of Schmidt's statements. Kölliker⁴ proclaimed the filaments to be parasites, and this opinion has been warmly defended also by Mr. Carter,⁵ apart from the point that, according to Kölliker, the filaments are fungi, according to Carter, algæ. In the meantime, Prof. Schmidt⁶ altered his opinion; further and more careful examination led him to the conclusion that the filaments were in no connection with the true skeleton, and this suggestion has been confirmed also by Schulze in his paper on "die Gattung *Hircinia*, Nardo und *Oligoceras*, g. n." Agreeing so far as the real facts are concerned, both the investigators just named differ, however, with regard to further conclusions. In his report on the Spongien der Küste von Algier Prof. Schmidt believes⁷ that if it were once proved that the filaments are nothing but parasites, the genus *Hircinia* ought to be dissolved as an independent genus, and incorporated in the genus *Cacospongia*. Prof. Schulze comes to quite a different conclusion; while inclined, as he has been, to regard the filaments as independent organisms, he ascribes⁸ to their presence in certain Keratosa a generic and even family character, which

¹ I allude to the osteoblastless skin-bones of *Cecilia* (Leydig) as well as to the equally osteoblastless bones of Teleostei supporting their fins (Kölliker).

² Spong. d. Adriat. Meeres, pl. iii. fig. 10.

³ *Proc. Zool. Soc. Lond.*, 1867, p. 503.

⁴ *Icones histologicæ*, Abth. i. p. 49.

⁵ *Ann. and Mag. Nat. Hist.*, ser. 4, vol. viii. p. 330, 1871.

⁶ *Zeitschr. f. wiss. Zool.*, Bd. xxxi. p. 661.

⁷ *Zeitschr. f. wiss. Zool.*, Bd. xxxiii. p. 34.

⁸ *Loc. cit.*, p. 36.