

Luffaria. Now, since for forms like *Spongia fistularis* the name of *Verongia* had been proposed by Bowerbank many years before, Hyatt, in the year 1875, rejected¹ the name *Luffaria* as identical with *Verongia*. It may be so with respect to the *Luffaria* of de Fonbressin and Michelotti, but Mr. Hyatt was wrong in not paying attention to the proceeding of O. Schmidt,² who in the year 1870 adopted *Luffaria*, and furnished the genus with a tolerably distinct diagnosis. He states that *Luffariæ* are sponges with skeletal fibres resembling those of a *Cacospongia* but still differing from them chiefly in three respects:—by a glass-like (“glasig”) character of the fibres, by their faculty of splitting easily, and by the possession of a narrow central canal, not identical, however, with that of the true *Aplysinidæ*. This latter statement Schmidt illustrates by a drawing representing a fibre of a *Luffaria* highly magnified. To these three characters O. Schmidt appends a fourth concerning the structure of the network formed by the fibres. He ascertains that the fibres of *Luffariæ* are approximately all of the same size, *i.e.*, comparatively thick, and that the irregular network formed by them terminates peripherally not with an even surface but with a surface roughened by many prominent fibres, so that a portion of the skeleton if devoid of soft parts would represent something comparable to a brush. In the Challenger Collection I find two specimens, the properties of whose skeletal fibres agree with those of *Luffariæ* as described and illustrated by O. Schmidt. I found, however, that the network of their skeletal fibres, though ending peripherally in projecting fibres (Pl. IX. figs. 2 and 4), is composed not of fibres of one kind, as suggested by Schmidt, but of two kinds, of larger fibres all approximately of the same thickness and of smaller ones originating from the first mentioned, but differing from them not only in diameter but also in their histological structure, the central canal of many of these smaller fibres having been found to be inconspicuous. Whether my specimens are to be regarded as deviating forms, or whether the statement of O. Schmidt was based on an insufficient study of the skeleton of the *Luffariæ* which he had for examination, I am not prepared to say. I must add, however, that this last supposition seems to me to be very plausible, not only because the later spongiological papers of O. Schmidt do not show that attention to practical details so characteristic of his “*Spongien des adriatischen Meeres*,” but also because a portion of the skeleton at least of the Challenger *Luffariæ*, when washed and dried, demands a microscopic examination in order to prove the presence of finer fibres, these latter being not only of a paler colour than the larger ones, and covered by them almost throughout, but also very scantily developed near the external surface. At any rate, I see no grounds for rejecting the genus in question. Thanks to the great amiability of Prof. Selenka of Erlangen, the type specimen of *Spongia (Verongia) fistularis*, Esper, has been placed at my disposal, and thus I am able to state that the difference between *Luffaria* and *Verongia*—which latter genus differs from *Aplysina* only by the compara-

¹ Revision, &c., vol. i. p. 401.

² Spong. d. atlant. Gebiet., p. 30.