

thus making it possible to learn much about the anatomy of fossils. It has always seemed to me that too much importance is now attached to peristomial characters, and there are several genera which clearly require modification, so that shortly revision of groups may be made by competent observers, but I do not think important results will be obtained by an attack along the whole line.

The genus *Membranipora* is now one of the largest, and no doubt contains many forms which should be removed, but it does not seem that Mr. Busk has been successful in his attempt to dismember it, since *Foveolaria elliptica* and *Foveolaria tubigera* are placed together in a new genus, and distinctive characters seem difficult to find for the groups which Mr. Busk called *Amphiblestrum*, *Foveolaria*, and *Biflustra*. Also *Membranipora galeata*, Busk, *Membranipora cervicornis*, Busk, and *Membranipora (Amphiblestrum) cristata*, Busk, are evidently very closely allied, and show that any classification placing them in different genera must be artificial.

In the paper already referred to, several points raised in Mr. Busk's Report were considered, and others were dealt with in a paper On the Use of the Avicularian Mandible,¹ &c., where I showed that "the articular process at each end of the base" of the mandible in the family Adeoneæ is not confined to that family, as supposed, but also occurs in *Membranipora*, *Cribrilina*, *Flustra*, &c. The so-called "columella" in the mandibles of certain *Celleporæ* I also showed was not distinctive of one division of *Cellepora*, or of those in the Southern hemisphere, but occurs in several European ones, and to this columella muscles are attached. In the mandibles of one *Cellepora*, called *Cellepora celosia* (in MSS.) by Busk, I find there are two columellæ, and in some species of *Diachoris* there are also two. A slight correction as to the operculum of *Schizoporella circinata* (MacGillivray) was made when describing the fossil form.² The opercula and mandibles of a few more species are now figured, and these chitinous appendages, which I was the first to use, are constantly of the greatest diagnostic value.

In the Journal of the Linnean Society, vol. xx. p. 275, I have dealt at some length with *Hornera (Idmonea) fissurata*, and hope shortly to describe *Cellepora columnaris* more fully from a fine New South Wales specimen, and also, in some journal or periodical, to give a fresh figure of *Supercytis tubigera*, as the series on the left-hand side are double, instead of single, and the ovicell is flattened on the front and surrounded with zoecia.³ There are also some species not yet recognised, and questions not completely studied, which have to be dealt with in subsequent papers.

Except where the contrary is indicated, it may be taken that I found the specific determination made, and, I presume, in every case by Mr. Busk.

¹ Journ. Micr. Soc., ser. 2, vol. v. p. 774.

² Quart. Journ. Geol. Soc., vol. xliii. p. 64. pl. viii. fig. 41.

³ When describing the New Zealand fossil, *Supercytis digitata*, B. (Quart. Journ. Geol. Soc., vol. xliii. p. 345), I made an unfortunate mistake in considering it had been found in Victoria, instead of South Australia.