

Family I. PLESIOFUNGIDÆ.

The family Plesiofungidæ has been founded by Professor Duncan to include many forms which modern investigation has shown to be more or less transitional between the Aporosa and the Fungida. As characterised by the presence of endothecal dissepiments as well as of synapticulæ, it includes many of the genera which have been referred to the Lophoseridæ, as for instance, *Tichoseris* (in the preliminary notice of which no dissepiments were described), *Pavonia* (= *Lophoseris*, Edw. and H.) in the thick and more massive species of which true dissepiments are well developed and were described by Verrill,¹ and *Agaricia*. In many genera which are closely related to the foregoing, and in which generally the species are thin and explanate, no dissepiments have been described; but observations are wanting on many of the forms.

Family II. CYCLOSERIDÆ.

The family Cycloseridæ [= Lophoseridæ (pars), Duncan] includes those Fungida in which the wall is solid, and neither perforated nor echinulate, and in which there are no dissepiments. The family name is taken from the most typical genus of the group, *Cycloseris*, and is thus directly comparable to the family name Fungidæ, which has been derived from the typical genus *Fungia*. As the genera *Pavonia* (= *Lophoseris*, Edw. and H.) and *Agaricia* now take their place among the Plesiofungidæ, the terms Pavonidæ, Lophoseridæ, and Agaricidæ are not available for this family.

Family III. FUNGIDÆ.

It is interesting to observe that though in the adult forms of the most typical genus of this family the wall is perforated, yet in the young stages it is frequently almost solid and imperforate.

Section III. MADREPORARIA PERFORATA.

This section is taken as defined by Professor Duncan.² It includes three families, all of which are represented in the collection.

- Family I. EUPSAMMIDÆ.
 „ II. MADREPORIDÆ.
 „ III. PORITIDÆ.

Following Mr. S. O. Ridley,³ I have placed the genera *Montipora* and *Anacropora* in the family Madreporidæ. It must be acknowledged, however, that the families Poritidæ and Madreporidæ are separated by but slight characters.

¹ *Trans. Connect. Acad.*, vol. i. p. 542. ² Revision, p. 172. ³ *Ann. and Mag. Nat. Hist.*, ser. 5, vol. xiii. p. 278.