

Madreporaria, while he cautiously states that "probably most of its genera are not Madreporarian."¹

In the following classification the Madreporaria are primarily divided into three sections.

- Section I. Madreporaria Aporosa (=Madreporaria Aporosa and Madreporaria Rugosa, Auctt).
 „ II. Madreporaria Fungida.
 „ III. Madreporaria Perforata.

Section I. MADREPORARIA APOROSA.

The definition of this section, as limited by Professor Duncan,² needs but one slight alteration in the characters of the septa to make it applicable to the section, as extended above, to include the old Madreporaria Rugosa. The septa may be distinctly lamellate, and solid or cribriform, or indistinctly lamellate, becoming more or less vesicular.

Professor Duncan also observes that "the hexamerous arrangement of the septa is not constant; it may be pentamerous, heptamerous, octamerous, or decamerous."³ To this should have been added that it may also be tetramerous.⁴

The group Madreporaria Aporosa, as now extended, is defined as follows:—

Madreporaria with simple or colonial forms. Hard structures usually solid and imperforate. Theca or wall solid, may be epithecate. Arrangement of the septa variable. Septa distinctly lamellate, and solid or cribriform, or indistinctly lamellate, becoming more or less vesiculate. Interseptal loculi open throughout, or closed more or less by endotheca in the form of dissepiments, tabulæ, and stereoplasm. Calicles of different shapes.

This section is divided into three subsections, each of which is again divided into families.

- Subsection I. Turbinolida.
 „ II. Oculinida.
 „ III. Astræida.

Subsection I. TURBINOLIDA.

This subsection is not treated of in the present Report, but is characterised as follows:—Corallum simple or in colonies without exotheca. Septal loculi open to the base.

¹ *Journ. Linn. Soc. (Zool.)*, vol. xviii. p. 6.

³ *Revision*, p. 7.

² *Revision*, p. 7.

⁴ *Vide Holocystis*, *Revision*, p. 130.