

as the family Isidæ as now understood; this unnamed division of Gray's contains his four families of Mopseadæ, Acanelladæ, Keratoisidæ, and Isidæ. Verrill makes his family Ceratoisidæ include Mopseadæ of Gray, but makes no reference to the species of the genus *Mopsea*, which for reasons given further on seem to be well and easily distinguished from the forms otherwise included in the Ceratoisidæ. It has therefore appeared better to make the family, to which we give Lamouroux's name, include the following subfamilies. It may be diagnosed thus:—

Colony consisting of a simple or branched axis. The axis consists of calcareous and horny (internodal and nodal) regions; the branches when present arising from either the nodal or internodal regions, sometimes anastomosing; the axis solid or hollow, smooth, fluted or echinulate. The base of the axis calcareous and attached.

The cœnenchyma varies greatly, being either very thick (*Isis*) or forming a thin membranous covering as in some species of *Acanella*, *Primnoisis*, &c. The spicules are either fusiform, scale-like, or of a six-rayed stellate form.

The polyps are scattered over the main stem or branches, rarely unilaterally arranged; they are for the most part prominent, though in the genus *Isis* they are retractile within the cœnenchyma; in those with prominent polyps the polyp bodies are more or less densely covered with spicules, some of which often project and form a "calyx" round the oral region of the polyp; the polyp tentacles are externally covered with spicules, they are only very imperfectly retractile, but when folding over the oral region they constitute a quasi-opercular covering somewhat as in the *Dasygorgidæ*.

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| Subfamilies | { | 1. Ceratoisidinæ.—Spicules fusiform.      |
|             |   | 2. Mopseinæ.—Spicules scale-like.         |
|             |   | 3. Isidinæ.—Spicules hexradiate-stellate. |

#### Subfamily 1. CERATOISIDINÆ.

*Keratoisidæ*, Gray, Cat. Lithophytes Brit. Mus., 1870, p. 18.

*Acanelladæ*, Gray, *loc. cit.*, p. 16.

*Mopseadæ (pars)*, Gray, *loc. cit.*, p. 13.

*Ceratoisidæ*, Verrill, Bull. Mus. Comp. Zool., vol. xi. p. 9, July 1883.

This subfamily is established for those species of Isidæ with prominent polyps and fusiform or club-shaped spicules.

The axis may be simple or branched, and is made up of calcareous internodal and horny nodal regions. The former are often hollow, more especially in the apical regions of the main stem or its branches.

Branches when present either arise from the internodal (*Ceratoisis*) or from the nodal (*Acanella*) regions. The base of the axis is calcareous, and is either divided into