

several variously shaped, root-like masses, by which the colony is fixed in the mud, or disc-like, when attached to rocks. The cœnenchyma is either membranous or thin, in some species without spicules, in others with either small, oblong, scale-like spicules, or these intermixed with larger fusiform or club-shaped spicules. The polyps are prominent, with imperfectly retractile tentacles; the bodies of the polyps are more or less densely covered with fusiform or club-shaped spicules, of which in some species a certain number project beyond the base of the tentacles and form a defensive calyx. The tentacles are covered with spicules, which when the tentacles are partially infolded serve as an opercular covering.

This subfamily contains the following genera:—

1. *Ceratoisis*, Perceval Wright.—Stem simple or branched. Branches when present arising from the calcareous joints. Spicules fusiform.
2. *Acanella*, Gray (*emend.*)—Stem branched. Branches arising from the horny joints. Spicules fusiform.
3. *Lepidisis*, Verrill.—Branches from horny joints. Spicules fusiform and lenticular.
4. *Bathygorgia*, n. gen.—Stem simple. Spicules biclavate.

Genus 1. *Ceratoisis*, Perceval Wright.

Keratoisis, E. Perceval Wright, Ann. and Mag. Nat. Hist., December 1868, p. 427; January 1869, p. 23.

„ J. E. Gray, Cat. Lithophytes Brit. Mus., July 1870, p. 18.

„ Th. Studer, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, October 1878, p. 662.

Ceratoisis, Verrill, Bull. Mus. Comp. Zoöl., vol. xi. p. 10, July 1883.

Lepidisis, Verrill (*purs.*), *loc. cit.*, pp. 10, 18.

Axis simple or feebly branched, when branched, the branches proceeding from the calcareous internodes. The internodes are in a young state hollow in most, getting nearly solid by age, but in some apparently remaining as a thin tube of calcareous material, smooth or fluted. Either rooted in the mud by rhizome-like processes or to rocks by a disc-like attachment. Polyps arranged on the axis either irregularly, in verticles, or in a uniserial manner; prominent; the tentacles imperfectly retractile. The cœnenchyma is membranous or thin; sometimes without spicules, but more frequently with either small oblong (lenticular) or large fusiform spicules, or with both. The spicules on the bodies of the polyps either lenticular or fusiform, eight large fusiform spicules starting from below the base of the tentacles forming a defensive calyx.

The lenticular or oblong scale-like form of spicule occurs in *Ceratoisis grayii*, E. P. W., the type form of the genus, and this form of spicule occurs also greatly developed in *Ceratoisis grandiflora*, Th. Std.; so that it would seem impossible to distinguish between the unbranched species of the genus *Lepidisis*, Verrill, and the unbranched