

forms of *Ceratoisis*. It is, therefore, thought desirable to emend the characters of the latter genus, so as to admit all the unbranched forms with hollow stems of *Isidæ*. It is of course possible that with increasing knowledge this genus will have to be subdivided. Unfortunately very few specimens of the species of this group were collected during the voyage of the Expedition, so that even the specific characters are not in many cases as satisfactorily determined as could be wished. It is somewhat remarkable that all the species found belong to the unbranched division of the genus.

1. *Ceratoisis philippinensis*, n. sp. (Pl. VA. fig. 5).

Axis unbranched. Calcareous internodes very slightly grooved, somewhat irregular and knobbed, 3 to 4 cm. long, 5 mm. in diameter, but tapering to the thinness of a hair from a horse's tail, apical portion hollow. Nodal regions 5 mm. high, cœnenchyma thick and membranous, covered with both fusiform and lenticular spicules.

Polyps prominent, in irregular verticils rather closely packed on the axis, with tentacles retracted, 6 mm. in height, covered with fusiform spicules, six or eight of which form a calyx around the base of the retracted tentacles.

This species is very closely related to *Ceratoisis grayi*, but differs from it in its mode of growth, in the greater abundance in the cœnenchyma of the lenticular spicules, and in the spicules of the polyps. Six or seven fragments of from 15 to 20 cm. in height, and all apparently forming portions of the same axis, but without a basal portion, were taken at the Philippines.

Spicules in the cœnenchyma, lenticular, sometimes asymmetrical; in the polyps, fusiform, with papilliform endings, sometimes broad, at other times narrow.

The large spicules around the base of the tentacles measure 1·2-0·08; 1-0·01; 2·5-0·1; 1·2-0·1 mm. The lenticular spicules measure 0·87-0·05; 0·2-0·58; 0·25-0·057 mm.

*Habitat*.—Station 201, off the Philippines; depth, 82 fathoms; bottom, stones, gravel.

2. *Ceratoisis grandiflora*, Studer (Pl. VA. fig. 6).

*Ceratoisis grandiflora*, Studer, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, 1878, p. 662.

Axis unbranched; base disc-like, affixed to rocks; calcareous internodes, varying greatly in length, from 1·5 to 5 cm., the shortest near the base, solid towards base, hollow towards apex. Polyps very large, placed on the axis in an irregularly alternate manner. Cœnenchyma thin, membranous, covered with lenticular spicules, which also cover the greater portion of the base of the polyps. Tentacles very imperfectly retractile; six to eight spine-like spicules, with irregular bifid tips, surround the base of the tentacles.