

diameter of 2 mm. at their commencement and 2.5 mm. at their thickened ends. The stem and branches are not cylindrical, but flattened on the two sides, so that the longer diameter comes in the plane of the expansion of the stem. The cœnenchyma is thick and rough. The polyps form prominent, blunt, conical warts, with a basal diameter of from 1 to 1.5 mm. They have a conical operculum. The polyps are found all over the surface of the twigs and finer branches; on the larger flattened branches they occur only on their shorter diameter; while on the main axis one surface alone has polyps, the other having none. The spicules of the cœnenchyma are smooth spindles, placed close to one another, their long axis parallel to that of the stem; one end of the spindle terminates in wart-like protrusions, with dentate margins, which intercalate with those of the adjoining spindle; the other is expanded into irregularly shaped longish discs, with dentate margins and warty surfaces. Their length by breadth is 0.33-0.08; 0.3-0.1 mm. The spicules are arranged peripherally round the base of the polyps, usually in two rows; their dentate surfaces projecting beyond the cœnenchyma and giving it a spiny appearance. These one-sided spiny discs and spindles, when viewed in profile, remind one of a hairy caterpillar, or still more of an *Æolis*; their length is 0.6 mm.; the spiny warts are 0.13 to 0.25 mm. long. On the polyps the spiny portion of the spicule is more strongly developed, and there are spiny discs 0.3 mm. long by 0.2 mm. broad; towards the margin of the calyx stellate spicules, with projecting smooth spines, are met with. From the projecting portions of these spicules, which lie over one another like tiles on a roof, a roughened appearance is given to the calyces. Spindle-shaped spicules, at the base of each tentacle, with spiny margins, form the opercular covering; there are three spicules at the base of each tentacle, 0.26 mm. long and 0.06 mm. broad; they rest on a well-developed colleret of curved and peripherally placed spindles, which can be withdrawn within the margin of the body.

The axis is horny, fibrous, of a black colour in the stem, but a light brown on the thinner branches.

Habitat.—Station 201, Philippine Islands; depth, 120 fathoms

Genus 11. *Acis*, Duchassaing and Michelotti.

Acis, Duch. et Mich., Mém. Corall. des Antilles, p. 19, 1860; Suppl. Mém., p. 14, 1864.

„ Kölliker, Icones Histologicæ, p. 136, 1865.

„ Ridley, Ann. and Mag. Nat. Hist., ser. 5, vol. x. p. 126, 1882.

This genus was established by Duchassaing and Michelotti for a West Indian species, conspicuous for the great development of the spicules. The diagnosis given in the Supplement, which includes two species, is:—“*Polyparium ramosum*, cortice e spiculis magnis fusiformibus nudis vel etiam in superficie squamulis deciduis formato;