

The colony is branched in the one plane, fan-shaped. The largest specimen measures about 150 mm. in height by about 100 mm. across the widest part. An anastomosis between both nodes and internodes is frequent and occurs from the basal portion of the colony to the very ends of the branches. In the basal portion of the main axis the nodes and internodes become confluent with those of the parallel branches, forming a massive stump-like base. In the upper meshes the internodes vary from 4 to 8 mm. in length, with an average diameter of 1 mm. The nodes are well marked, slightly more prominent on the back of the colony, 1.5 mm. in diameter.

The polyps are arranged on the sides of the branches, but while sometimes assuming a quite bilateral arrangement, at other times they are found in clusters, extending over the front of the branches, and on the tips of the branches they are even found all round. They are retractile, within distinct verrucæ, which are from 0.5 to 1 mm. in diameter; sometimes the verrucæ project but little beyond the surface of the cœnenchyma. In one colony besides the ordinary sized polyps, others are to be found the verrucæ of which measure 1.5 mm. in diameter and 1.25 mm. in height; those examined were found to be full of ova. The cœnenchyma is moderately thick and rough with spicules.

The colour of the colony varies; one being of a light yellow colour with the polyps of a vermilion red; in another the yellow is of a brighter hue and the verrucæ are pink; and in a third, of which there are but a few fragments, the colour is of a pure white with pink verrucæ.

The spicules measure:—the club-like spindles 0.18–0.04; 0.16–0.06 mm. The bent warty spindles 0.2–0.08; 0.2–0.06; 0.16–0.08 mm. The Stachelkeule measure 0.1–0.04; 0.1–0.06; 0.14–0.04 mm. The one-sided spiny spindles 0.06–0.06 mm. Four-rayed forms 0.12–0.06 mm. The curved spiny spindles on the polyps 0.2–0.02; 0.16–0.02; 0.14–0.04 mm. The irregularly branched spindles 0.14–0.1 mm. in broadest, and 0.02 mm. in narrowest diameter; the double crosses 0.06–0.04 mm.

*Habitat.*—Reefs, Samboangan; February 1, 1875.

*Melitodes sinuata*, n. sp. (Pl. XL. fig. 9).

A small but possibly nearly complete colony of this species is in the collection; it wants the basal attachment and is also somewhat frayed away towards the terminal branches. It is fan-shaped and measures 90 mm. in height and about the same in greatest width. The branches freely anastomose, giving rise to a complicated series of meshes, into which very short lateral branches protrude. The nodes are large, measuring 3.5 by 3 mm. in the basal portion of the colony, and 2 by 2 mm. in the terminal twigs. The internodes vary greatly in length, being from 4 to 10 mm. towards the circumference, and not more than 2 mm. at its basal portion. The basal internodes measure 2.5 mm. in diameter, the terminal ones 1 mm. When denuded of cœnenchyma the basal