

generally about 2.5 mm. wide, sometimes more, very short and thick, with very porous edges, and with a very distinct star of twelve septa. In many apical cups small or rudimentary septa of a third cycle are present, and in a few cups of larger size they are large and well developed. The lateral calicles are very unequal and variable, generally about 1.5 mm. wide, immersed and rather widely placed on the under surface and over a large part of the upper surface; often slightly prominent on one side, forming very short, open, round-nariform cups, while not infrequently they are crowded, and, by the thickening and upgrowth of the under side, shortly verruciform. The stars are very distinct, of twelve unequal septa; and in those calicles which are not verruciform, two opposite septa of the first cycle become decidedly and strongly exsert. The coenenchyma is porous in the younger parts, becoming closely reticulate and dense below; the surface very roughly and closely echinulate, and strongly striated on the under sides of the calicles.

A single specimen of this species was obtained. It has grown prostrate in one direction to a length of about 26 cm., branching laterally and so closely that the branches are broadly coalescent at the point of origin. Many parts of it are dead, and more or less incrustated by fresh growth. Its peculiar characters separate it widely from all other known species of the genus.

Locality.—Banda.

34. *Madrepora aculeus*, Dana.

Madrepora aculeus, Dana, Zoophytes, p. 450, pl. xxxii. fig. 6.

A small, dead, and somewhat incrustated fragment of a corallum has been doubtfully referred to this species. It differs from Dana's figure chiefly in the nature of the branchlets, which are here shorter and furcate, sometimes divided into three or four, with a thick base from about 7 to 9 mm. in diameter. In other essential characters it agrees with the species.

Locality.—Samboangan, Philippines.

35. *Madrepora angulata*, n. sp. (Pl. IX. figs. 5-5a).

Corallum arborescent and rather sparsely branched, somewhat prostrate; the main stem elongated, subterete, or slightly and irregularly compressed, or twisted and acutely angular, of nearly uniform size throughout, from about 6 to 8 mm. wide, somewhat wider at its upper part where the main branches originate. The branches and chief branchlets are but slightly smaller than the main stem, rather short and angular, not coalescent; the young branchlets much smaller and tapering; they develop chiefly on opposite sides of the stem at an angle of about 50°, but many are found placed quite irregularly. Apical calicles not large, scarcely prominent, about 2 mm. wide, sometimes more, with edges which are not porous; star distinct, of six large, unequal septa, and six small