

The species is close to the *Pocillopora cespitosa*, from which it can be distinguished by its more fruticose habit, its small cells, and the developed septa and columella. It is extremely close to the *Pocillopora gracilis*, which agrees with it in all essential particulars, and, differing only in the more slender habit, seems thus to be only a variety of the species.

Locality.—Tongatabu.

4. *Pocillopora cespitosa*, Dana.

Pocillopora cespitosa, Dana, Zoophytes, p. 525, pl. xlix. fig. 5.

” ” Verrill, Proc. Essex Inst., vol. vi. p. 91.

This species is exceedingly close to the *Pocillopora brevicornis*, though according to Verrill it is distinct from it. The typical form can readily be distinguished by its large cells (about or more than 1 mm. in diameter) and its thinner and more irregularly placed branches; while the *Pocillopora brevicornis* is at the same time marked by its small cells (much less than 1 mm.) and its thickened, short, stumpy and close branches and branchlets. Not infrequently, however, the species takes on the short, suppressed growth of the *Pocillopora brevicornis*, when its cells become markedly smaller, and in this form it is extremely difficult to determine between the two species.

A fragment from Tahiti, which is not separable from this species, is peculiar in the great size and depth of its calicles. These are occasionally as much as 2 mm. in diameter.

Localities.—Reefs, Honolulu, and at depths from 1 to 2 fathoms; Tahiti.

5. *Pocillopora brevicornis*, Lamarek.

Pocillopora brevicornis, Lamarek, Hist. Anim. sans Vert., ii. p. 275.

” ” Dana, Zoophytes, p. 526, pl. xlix. fig. 8.

A very fine specimen and some fragments were obtained. In many parts of the corallum the branches become rather slender and elongate, and take on the characteristic shape of the *Pocillopora bulbosa*, from which it is thus difficult to separate the species.

Localities.—Api, New Hebrides; reefs, Fiji.

6. *Pocillopora damicornis* (Esper).

Madrepora damicornis, Esper, Pflanz. Forts., i. p. 43; Madrep., pl. xlvi. A.

A single rather large and more or less rounded clump was obtained, which agrees very closely with the figure and description given by Esper. The basal calicles are circular,