

Genus 5. *Montipora*, Quoy and Gaimard.*Montipora*, Quoy and Gaimard, Voy. de l'Astrol., Zooph., p. 247.

,, Milne-Edwards and Haime, Cor., iii. p. 207.

This genus includes a large number of species, and like the closely related *Madrepora* presents considerable variation in form and structure when the various species are compared. Thus the prominence of the calicles and the papillose nature of the cœnenchyma, which often forms monticular, intercalicinal eminences, are so marked in certain forms that it has been considered not improbable that, on these grounds, the genus may have to be divided. This apparent distinctness has been noticed long ago by Verrill,<sup>1</sup> who at the same time pointed out that the smoothness and evenness of the cœnenchyma and calicles, which are so marked in some ramose forms, pass insensibly into the papillose and prominent condition in others, the two characteristics being even present on different parts of specimens of one and the same species: so that these characters are not available for generic separation.

Again, the characters presented by such massive species as *Montipora foveolata*, in which the septa, which are subequal at their upper part, are considerably sunk in deep pits, at the bottom of which the primary septa are thickened and united, seem at first sight to offer a means of subdividing the genus; but here again the transitional forms through *Montipora caliculata* and *Montipora verrucosa* prevent any such subdivision.

This genus and the allied *Madrepora* furnish striking examples of the difficulty which is constantly encountered in framing generic limitations among the Corals.

Twenty-two species of the genus were obtained.

1. *Montipora palmata* (Dana).*Manopora palmata*, Dana, Zoophytes, p. 493, pl. xliv. fig. 2.

The papillæ give a characteristic appearance to this fragile species, and are developed in connection not only with the cœnenchyma but also with the lower edge of the calicles, so as to form prominent, well-marked portions, giving a rough appearance to the corallum. The form and arrangement of these spinules are shown by Dana (pl. xliv. fig. 2c and 2d). On the under surface of the branches the spinules are often very short, the cœnenchyma becoming in this case simply uneven.

*Locality.* — Reefs, Fiji.

2. *Montipora fragilis*, n. sp. (Pl. VIII. figs. 1 1b).

Corallum small, arborescent, ramose, very light and fragile on the younger parts, becoming denser at the base; branches about 7 mm. thick, much compressed and

<sup>1</sup> *Proc. Essex Inst.*, vol. v. part 3, p. 26.