

fine striæ. The variety is nearly allied to var. *epithecata* of Duncan, but as all five specimens of it obtained at one locality show similar characteristics, it is here named and figured. All the specimens have a slender, short pedicle of attachment, usually slightly curved. Two are attached to dead Gasteropodous shells.

Station 192. Off the Ki Islands. Lat. $5^{\circ} 42' S.$, long. $132^{\circ} 25' E.$ 129 fathoms.

Var. *epithecata*, Duncan.

One dead worn specimen only may be referred to this variety.

Station 219. Off the Admiralty Islands. Lat. $1^{\circ} 50' S.$, long. $146^{\circ} 42' E.$ 150 fathoms.

Caryophyllia communis, Moseley (Pl. I. figs. 4, 4a, 5, 5a).

Ceratocyathus communis, Seguenza.

A series of specimens of this well-marked curved form, dredged in deep water off Nova Scotia and off the Azores, are absolutely identical with specimens in the British Museum from the Sicilian Tertiaries at Messina, obtained from Seguenza, and named by him: Many of the Challenger specimens which have evidently lain for a short time on the bottom in the dead condition show a slight browning of their surface, due probably to a deposit on them of peroxide of manganese. Some of the Sicilian specimens show an exactly similar browning, and are so closely alike to the deep-sea examples that were the fossil specimens mingled with the recent it would be impossible to separate the one set from the other, except by searching for matrix in the chambers of the fossils.

All the specimens are curved and unattached. The curved pedicle is usually twisted to one side, the plane of curvature not corresponding with that of either the major or minor axis of the oval calicle. In all old specimens there is a tendency to the development of an epithelial covering around the pedicle and lower part of the wall. This epitheca appears to be composed of a dead and partly decomposed surface-layer of the corallum. In some specimens it is thick, opaque, and dull brownish-white, and covers the whole wall of the corallum nearly up to the margin of the calicle, beneath which it terminates in a sharply-defined boundary, surmounted by a zone of freshly formed semi-transparent coral substance. In the largest specimen obtained (Pl. I. fig. 4, 4a), the epitheca is extremely thick and conspicuous.

The majority of specimens which may be regarded as adult, being of nearly uniform size, have the calicle divided into sixteen equal chambers by as many septa, which are alike in size and form, and in the extent to which they are exert. Each of these sixteen chambers is subdivided again by three septa, a median larger and pair of lateral smaller, into four equal smaller chambers. The sixteen larger septa would be termed primary and secondary, according to ordinary nomenclature, but they are precisely equal in development. There are sixteen well-developed pali opposite the septa of the next order,