

The calicle is circular in outline, the septa are only very slightly exsert. The septa in the larger specimens are arranged symmetrically in multiples of eight in three cycles, There are eight primary septa, eight secondary, and sixteen tertiary, of successively smaller size. Opposite the secondary septa are eight pali. In one small specimen there are either fourteen or fifteen primary and secondary septa, and either seven or eight pali. In another small one there are sixteen primary and secondary septa, but only seven pali, there being a gap in the circle of pali opposite one of the secondary septa; but in another, almost equally small, there are eight well-developed pali. On rubbing down the base of this specimen in order to expose the earliest formed septa, I found these rather irregular when first brought into view by the section, but as soon as cut into so far as to be distinctly marked, showing plainly as eight in number—nowhere as six: I could only afford to cut one specimen. All the septa are thin and delicate laminae, with nearly smooth surfaces. They are remarkably sinuous throughout their extent, and especially so towards their inner margins. They arise from the inner wall of the calicle along sinuous lines, so that when a vertical section of the corallum is made, the septa exposed

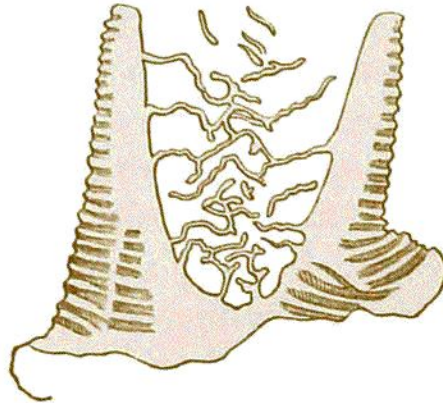


Diagram showing a vertical section of *Caryophyllia rugosa*.

nearest the line of section are cut through at a succession of intervals at their projecting folds, and hence the section shows a series of chambers, one above another, separated by sinuous transverse lines of coral substance.

The columella is composed of small, sinuous, lamellar processes, which are nine in number in the largest specimen; four, five, and three in the smaller ones respectively.

This species is retained as a *Caryophyllia*, notwithstanding the octamerall arrangement of its septa, because it is most evidently from its general appearance, peculiar colour, and file-like external surface, closely allied to *Caryophyllia lamellifera*. It is distinguished from this latter species by its octamerall arrangement, the peculiar sinuosity of its septa, and the smoothness of their surfaces, and also in the adult condition by its simple cylindrical form.

Height of the largest specimen, 4 mm. Breadth of the calicle, 4 mm. Height of the smallest specimen 2 mm. Breadth of the calicle 2 mm.

Six specimens attached to small stones.