

The test is Rotaliform; the arrangement of the segments is always spiral to begin with, but frequently annular or irregular during the subsequent stages of growth; and (typically) the individual segments open directly into a central umbilical cavity or vestibule on the inferior side. The successive chambers are not closely contiguous, but are separated by intervals, which appear on the inferior face in the form of radiating depressions or fissures. In certain cases the base of the shell is enveloped by a distended balloon-shaped chamber. The general contour of the test is either conical, convex, complanate, or, as in the variety last referred to, subglobular. The fossil representatives of the type attain a diameter of $\frac{1}{8}$ th inch (1.4 mm.), the recent species are scarcely so large.¹

Broadly speaking, the foregoing are the salient features of the genus, the most distinctive being the independent communication of the individual chambers with the umbilical vestibule, and the separation of the successive chambers by depressions or intervals. The latter peculiarity often produces an appearance of alternation in the arrangement of the adjacent annuli. There are other points of interest, both structural and morphological, but as they are for the most part of specific rather than generic application, their consideration may be deferred.

The genus *Cymbalopora* is classed by Carpenter and his colleagues with the ROTALINÆ, by Bütschli with GLOBIGERININÆ; in point of fact, it has intermediate characters which give it almost equal claim to rank with either group. In many respects it betrays an affinity to *Discorbina*, but its closest relationship is undoubtedly with the Planorbuline series and with *Patellina*; it has therefore been retained in the position assigned to it by the former authors.

The geographical distribution of the genus is limited to tropical and subtropical latitudes. It reaches as far north as Bermuda and the Azores, but in the southern hemisphere it has not been met with south of the Friendly Islands, which are just within the tropical line. Its home is amongst coral-sand, and it is found at every depth from the littoral zone down to 600 or 700 fathoms. The best-known fossil *Cymbaloporæ* are those described by Hagenow, occurring in the Chalk of Maestricht.

Cymbalopora poeyi, d'Orbigny, sp. (Pl. CII. fig. 13, a.b.c.).

Rotalia squamosa, d'Orbigny, 1826, Ann. Sci. Nat., vol. vii. p. 272, No. 8 (name only).

Rosalina poeyi, Id. 1839, Foram. Cuba, p. 100, pl. iii. figs. 18-20.

„ *squamosa*, Id. Ibid. p. 100, pl. iii. figs. 12-14.

Cymbalopora poeyi, Carpenter, 1862, Introd. Foram., p. 215, pl. xiii. figs. 10-12.

„ „ Moebius, 1880, Foram. von Mauritius, p. 97, pl. x. figs. 1-5.

Amongst the living representatives of the genus, *Cymbalopora poeyi* is the best

¹ Carpenter alludes to the small dimensions of the recent *Cymbaloporæ* as compared with the fossil forms, and states that "the diameter of ordinary specimens obtained from deep water at the present time does not exceed $\frac{1}{10}$ th inch" (Introd. Foram., p. 215). This surely is an error; the typical *Cymbalopora poeyi* is often $\frac{1}{8}$ th inch, sometimes nearly $\frac{3}{10}$ th inch in diameter; and one of the specimens of *Cymbalopora tabellæformis* now figured measures more than $\frac{1}{2}$ nd inch, which is not far short of the dimensions of the Cretaceous species.