

considerably greater. The species corresponds morphologically to *Truncatulina refulgens* and *Pulvinulina micheliniana*; but the shell is more neatly and compactly built, the outlines more rounded, and the walls more finely perforated, than in either of the latter species. Sections of the test show that the septal walls are double, and that there is considerable deposit of shell-substance in the region of the umbilicus, but without any trace of canals.

Rotalia soldanii has a far wider geographical distribution than any other recent member of the genus. It is common in the North and South Atlantic, the Mediterranean, the Southern Ocean, and the North and South Pacific, its area extending at least from lat. 60° 14' N., in the Atlantic, to the Antarctic Ice-barrier, lat. 64° 18' S., in the Southern Ocean. Its home is on the bottom-ooze of the deep sea. Out of sixty localities at which its presence has been ascertained, only six have a depth of less than 300 fathoms, whilst thirty-nine are above 1000 fathoms, and twelve above 2000 fathoms.

Its geological range is also more extensive than that of its immediate allies. It has been observed in the Oligocene Septaria-clays of various districts of Germany (Reuss, Bornemann), and in the *Clavulina-szabói* beds of Hungary (Hantken); in the Miocene of several parts of Austria (d'Orbigny, Karrer), of Calabria (Seguenza), and of Malta (Brady); in the Salzthon of Wieliczka, in Galicia (Reuss); and in the later Tertiaries of Italy (d'Orbigny, Costa, &c.). If Dr. Carpenter's view be correct, that "the *Rotalina soldanii* of the Vienna Tertiaries is identical with the *Rotalina umbilicata* of the Chalk," and it is difficult to recognise any valid ground for separating them, the genealogy of the species reaches back to an even earlier geological period than has been indicated.

Rotalia schroeteriana, Parker and Jones (Pl. CXV. fig. 7, a.b.c.).

Faujasina, sp., Williamson, 1853, Trans. Micr. Soc. Lond., ser. 2, vol. i. p. 87, pl. x.

Rotalia schroeteriana (Parker and Jones, MS.), Carpenter, 1862, Introd. Foram., p. 213, pl. xiii. figs. 7-9.

„ *tuberosa*, Karrer, 1867, Sitzungsber. d. k. Ak. Wiss. Wien, vol. lv. p. 349, pl. i. fig. 4.

The test of *Rotalia schroeteriana*, in its typical condition, takes the form of a truncated cone, of which the broad, nearly flat, basal end represents the superior or spiral face. It attains comparatively large dimensions, often measuring $\frac{1}{2}$ th inch (2 mm.) in diameter. It also displays a higher development of the supplemental skeleton and canal system than any of its congeners. The minute structure of the shell has been amply described and illustrated by Williamson (*loc. cit.*), and more recently by Dr. Carpenter.

No well-marked specimens of *Rotalia schroeteriana* have been met with in the Challenger dredgings. Though somewhat local in distribution, it is by no means rare amongst the islands of the Eastern Archipelago, at depths of less than 50 or 60 fathoms.