

Rupertia, Wallich.*Rupertia*, Wallich [1877], Bütschli, Brady, Schlumberger.

The genus *Rupertia* was established by Wallich for a number of Planorbuline Foraminifera obtained by him from near the coast of Greenland, during the cruise of the "Bulldog" in 1860. The morphological characters of the type, as well as the particulars of its geographical distribution, will be most easily discussed in connection with its single specific form.

Rupertia stabilis, Wallich (Pl. XCVIII. figs. 1-12).*Rupertia stabilis*, Wallich, 1877, Ann. and Mag. Nat. Hist., ser. 4, vol. xix. p. 501, pl. xx.

" " Schlumberger, 1883, Feuille des Jeunes Naturalistes, ann. xiii. p. 27, pl. ii.
figs. 6-8.

This interesting organism forms the subject of a short paper by Dr. Wallich,¹ which contains, in addition to the author's account of the species, a note by Profs. Rupert Jones and Parker on its structure and affinities. The specimens on which the descriptions are based appear from the drawings to have been somewhat obscure, and their structural features not so well marked externally as those of many which have since been obtained; nevertheless the essential characters of the species are correctly stated, and the points left for further elucidation are comparatively few, and only such as can now be satisfactorily cleared up. It has recently been well figured by Schlumberger (*loc. cit.*).

In its typical presentment the test of *Rupertia stabilis* has the form of a straight, curved, or inequilateral column, with a slightly expanded discoidal base and a swollen head. The length of the columnar portion, and the shape and relative size of the capitulum vary in every specimen. The external contour of many of the shells is aptly suggested by the terms "an irregular lumpy outline, like some of the asymmetrical Puff-balls, and somewhat resembling an inverted *Ascidia mamillata*" (Wallich, *op. cit.*, p. 502), whilst that of others is more regular and more distinctly spiral.

During the early stages of growth the shell is very similar in form and habit to an ordinary adherent Rotalian such as *Truncatulina refulgens*, as may be seen from the young specimen represented in fig. 1. The base, however, attains its full width upon the completion of a single convolution, and the later coils are superimposed vertically, each only slightly embracing its predecessor. After the second convolution the diameter begins to increase; in some cases the third widens suddenly and forms a bulbous end to the shell, in others the increase is more gradual. The adult test may have as many as five convolutions, but more commonly the number is less.

The adherent base forms a slightly expanded flat or concave disk, on which, under

¹ On *Rupertia stabilis*, a new sessile Foraminifer from the North Atlantic, *loc. cit.*