

- Cristellaria*, pars, Lamarck [1822].
Placentula, pars, Lamarck [1822], Berthelin.¹
Crepidulina, pars, Blainville [1824].
Rotalites, pars, Blainville [1824].
Rotalia, pars, d'Orbigny [1826], Reuss, Parker and Jones, Morris and Quekett, Karrer, Schwager, Gümbel.
Rosalina, pars, d'Orbigny [1826], Parker and Jones, Gümbel, Terquem.
Turbinulina, pars; *Planorbulina*, pars, d'Orbigny [1826].
Omphalophaeus, Ehrenberg [1838].
Rotalina, pars, d'Orbigny [1839], Reuss, Czjzek, Bailey, Ehrenberg, Bornemann, Egger, Williamson, Karrer, Seguenza, Alcock, Terquem, Parfitt, Schlicht, Schlumberger.
Valvulina, pars, d'Orbigny [1839], Terquem.
Gyroidina, Roemer [1840].
Planulina, pars, Roemer [1840], Ehrenberg.
Platyæcus, *Spiropleurites*, Ehrenberg [1854].
Pulvinulina, Parker and Jones [1862], Carpenter, Brady, S. Owen, Reuss, Karrer, M. Sars, Hantken, G. M. Dawson, Fischer, Miller and Vandon Broeck, Schulze, Norman, Blake, Wright, Siddall, Terrigi, &c..
Discorbina, pars, Schwager [1866], Seguenza.
Truncatulina, pars, Karrer [1868], Seguenza.
Epistomina, Terquem [1883], Uhlig.

Of all the Rotaline genera *Pulvinulina* presents the greatest range of morphological variation. It is impossible to summarise the characters of the genus in the terms of a brief zoological description, or even to seize upon distinctive features sufficiently constant to serve under all circumstances for its separation from allied or collateral groups. It is only by the study of its various modifications in series and in relation to a central type, after the method pursued by Parker and Jones and Carpenter, that any adequate knowledge of its multiform aspects can be obtained. The *Nautilus repandus* of Fichtel and Moll exemplifies, perhaps, the most characteristic features of the group, and with a sufficient array of specimens it is easy to demonstrate that the simple *Spirillina*-like investment of *Pulvinulina vermiculata* and the complex *Nummulina*-like shell of *Pulvinulina elegans* or

¹ M. Berthelin prefers Lamarck's appellation, *Placentula*, for the present genus, and has on more than one occasion defended its employment on the ground of priority, basing his argument on the occurrence of the term in the *Extrait du Cours de Zoologie du Muséum d'Histoire Naturelle*.

Lamarck's connection with the genus is as follows. In the *Extrait du Cours*, &c., 1812, p. 122, the word, "*Placentule*" appears, together with *Rotalie* and *Lenticuline*, in the category of the 5th section of "Céphalopodes testacés polythalamés," just as *Discorbis* occurs in a subsequent list; but without either description, figures, or any other indication of zoological characters. It is manifest that the employment of an indefinite vernacular name in this way has no bearing whatever on a question of systematic nomenclature.

In the *Tableau Encycl. et Méthod.*, &c., 1816, pl. cccclxvi. figs. 9, 10, Lamarck has copied Fichtel and Moll's drawings of *Nautilus repandus* and *Nautilus asterizans*, appending to them the names *Pulvinulus repandus* and *Pulvinulus asterizans* respectively; and in the *Hist. Nat. des Anim. sans Vert.*, vol. viii. (1822) p. 621, he describes the same forms as *Placentula pulvinata* and *Placentula asterizans*.

According to modern ideas, the figures indicated represent the types of two very distinct genera of Foraminifera, *Pulvinulina* and *Nonionina*; and were there any ground for coupling one of Lamarck's names with the former, the other must perforce take precedence for the latter genus. But no such authority exists, and it has been tacitly admitted that, by the adoption of the generic terms *Pulvinulina*, *Discorbina*, *Rotalia*, &c., in their rearrangement of the ROTALINÆ, Messrs. Parker and Jones have taken the course least open to objection, and have at the same time sufficiently recognised the earlier Lamarckian nomenclature.