

the North Pacific,—off Honolulu Reefs, 40 fathoms: and the remaining ten to the islands of the South Pacific, 2 fathoms to 155 fathoms.

Anomalina, d'Orbigny.

Anomalina, d'Orbigny [1826], Bronn, Münster, Roemer, Reuss, Costa, Parker and Jones, Egger, Carpenter, Karrer, Seguenza, Brady, M. Sars, Schlicht, Siddall, Martonfi.

Planulina, d'Orbigny [1826], Bronn, Münster, Roemer, Reuss, Norman.

Rotalina, pars, d'Orbigny [1839].

Rosalina, pars, Reuss [1845], Stache.

Rotalia, pars, Reuss [1855], Stache, Gümbel.

Nonionina, pars, Reuss [1861].

Discorbina, pars, Reuss [1865], Seguenza.

Planorbulina, pars, Parker, Jones, and Brady [1865], Reuss, Wright.

Truncatulina, pars, Gümbel [1868], Hantken.

It is a debatable point whether much is gained in the long run by the retention of the term *Anomalina* for a small section of the *Planorbulinae*. It was originally applied by d'Orbigny to two very different species of Foraminifera, one of which, *Anomalina punctulata*,¹ is a nearly equilateral, compressed, subnautiloid *Planorbulina*, umbonate at the inferior umbilicus; whilst the other, *Anomalina elegans*,² is a depressed plano-convex modification of *Discorbina*, with a sunken umbilicus.

In the "Vienna Basin" monograph, by the same author, four new species were introduced, all of which belong to the Planorbuline series. Of these, *Anomalina variolata* is obviously nothing more than the common *Truncatulina lobatula*, whilst the remaining three perhaps belong to *Anomalina* proper.

Parker and Jones (Phil. Trans., vol. clv. p. 383) state "the term *Anomalina* is not really wanted, however convenient it may be as a term for the subsymmetrical or somewhat biconvex arrested *Planorbulinae*," and they subsequently direct attention to "the evident passage-forms from the plano-convex to the biconcave condition of the shell" as exemplified in *Anomalina coronata*.

Von Reuss, in his farewell contribution to the history of the Foraminifera, gives his views on the subject in a short paragraph, of which the following is a free version. "In the *Anomalinae* the distinction between the spiral [superior] and the convex or umbilical side disappears to a greater or less extent. The nearly equilateral test assumes an apparently nautiloid character, the two sides presenting umbilical depressions of different width and depth. The aperture does not appear on the lateral surfaces, but is situated on the septal face of the chambers, though always nearer the flatter [superior] side. These forms pass through numerous gradual modifications into the typical *Truncatulinae*, so that it is impossible to limit them sharply. The association of *Planorbulina*, *Trun-*

¹ *Ann. Sci. Nat.*, 1826, vol. vii. p. 282, No. 1, pl. xv. figs. 1-3.

² *Ibid.*, p. 282, No. 4;—Modèle, No. 42.