

B. Tribe.—PERFORATA, Carpenter (+ pars Lituolidarum).

- Family 1. *Rhabdoina*, Schultze.
2. *Polymorphinina*, Bütschli.
3. *Globigerininae*, Carpenter (p.p.).
 Sub-family (a) *Globigerinae*, Carp.
 (b) *Cryptostegia*, Reuss.
 (c) *Textularidae*, Carp.
 (d) *Rotalinae*, Carp.
4. *Nummulitinae* (*Nummulinida*, Carpenter) emend. Bütschli.
 Sub-family (a) *Involutinæ*, Bütschli.
 (b) *Pulleninae*, Bütschli.
 (c) *Nummulitidæ*.
 (d) *Fusulinidæ*, Möller.
 (e) *Cycloclypidæ*, Bütschli.
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These tables taken collectively form a sort of epitome of the literature of the last twenty years affecting the classification of the Foraminifera. The publication of Max Schultze's classical memoir, though its least successful portion was that devoted to the systematic arrangement of the animals whose life-history the author had so carefully investigated, paved the way for a natural method of grouping; and not many years elapsed before it was followed by the "Entwurf" of Professor Reuss, and the more elaborate "Introduction" of Messrs Carpenter, Parker, and Jones.

The classification proposed by Reuss was excellently adapted to meet the wants of the working palæontologist, and it obtained very general acceptance on the continent of Europe; but apart from the deficiencies arising from the discovery of many new types, and the abandonment of others since shown to have been wrongly placed amongst the Rhizopoda, it has serious defects which cannot be overlooked.

The primary division of Foraminifera into *Perforata* and *Imperforata* would be very convenient if it could be employed in its original sense; but it is now a well recognised fact that some of the arenaceous types have interstitial openings amongst the sand-grains of which the test is built, as well as a general aperture; that others, like *Psammosphæra* and *Sorosphæra*, have no general aperture, but only interstitial orifices; and that a few, *Thurammina* for example, have numerous small mammillate orifices, irregularly disposed over the surface of the test, either with or without a general aperture. If the arenaceous group be removed from the *Imperforata*, there remain but the chitinous and porcellaneous forms. That the *Porcellanea* are, under all circumstances, imperforate, scarcely admits of question, and that a large proportion of the *Arenacea* share the same condition, there is no reason to doubt; but the exceptions in the latter case are so numerous and varied, that the *Arenacea* cannot be included, as a whole, in a Sub-order of which the distinctive character is the imperforate test, and if omitted the term becomes at once