

1862. BURY (L. N. 17) gives in an atlas of twenty-five plates, photographed from drawings, the figures of numerous fossil Polycystina of Barbados (without descriptions), of which many are new species overlooked by Ehrenberg (compare § 242, above).
1872. EHRENBURG (L. N. 24) gives a list of names (without description) of all the Polycystina observed by him from the bottom of the sea, 279 species, of which 127 are figured on twelve plates.
1875. EHRENBURG (L. N. 25) gives a list of names of all the fossil Polycystina observed by him (from Barbados, the Nicobar Islands and Sicily), 326 species, of which 282 are figured (compare § 242 above). In a new "Systematic Survey of the Genera" the number of these is given as 63. The 7 families are the same as given in 1847 (see above), as also the two orders (NASSELLARIA = Solitaria, SPUMELLARIA = Composita).
1876. ZITTEL (L. N. 29) describes the first fossil Radiolaria from the chalk (6 species) and establishes the new Cyrtoid genus *Dictyomitra*.
1876. JOHN MURRAY (L. N. 27) establishes the new family Challengerida, and figures 6 new generic types of PHÆODARIA.
1879. RICHARD HERTWIG (L. N. 33) first describes the fundamental differences in the structure of the central capsule, and in accordance with them divides the Radiolaria into six orders:— (1) Thalassicollea, (2) Sphærozoëa, (3) Peripylea, (4) Acanthometrea, (5) Monopylea, (6) Tripylea (p. 133). These are subdivided into 18 families, and their phylogenetic affinities discussed (p. 137). On the ten plates, several new species from Messina are figured, among them the types of several new genera (*Cystidium*, *Calacantha*, *Echinosphæra*) (compare § 252).
1879. ERNST HÆECKEL (L. N. 34) founds the order PHÆODARIA as a "new group of marine siliceous Rhizopods," and distinguishes in it 4 suborders, 10 families and 38 genera.
1880. EMIL STÖHR (L. N. 35) describes the Miocene "Radiolarian fauna of the tripoli from Grotte in Sicily," 118 species, of which 78 are new; among them is the new genus *Ommatodiscus*, the type of a new family, Ommatodiscida. The new species are figured on seven plates.
1880. DANTE PANTANELLI (L. N. 36) describes 30 species of fossil Polycystina from the jaspers of Tuscany, which he regarded as Eocene, but which were probably of Jurassic origin (compare § 243, note B, above).
1881. ERNST HÆECKEL (L. N. 37) publishes a "Sketch of a classification of the Radiolaria on the basis of the study of the Challenger Collection," and distinguishes in his "conspectus ordinum" (p. 421) 2 subclasses and 7 orders, and in the "prodromus systematis Radiolarium" (pp. 423–472) 24 families with 630 genera, among which are more than 2000 new species.
1882. BÜTSCHLI (L. N. 40) on the basis of studies of the fossil Monopylea of Barbados, investigates the "mutual relations of the Acanthodesmida, Zygyocyrta and Cyrtida," and gives a critical revision of the genera of these "Cricoidea;" a number of new species are described and figured (Tafs. xxxii, xxxiii), and some new genera of Stichocyrta established (*Lithostrobos*, *Lithomitra*, &c.).
1882. DUNIKOWSKI (L. N. 44) describes 18 new fossil Polycystina from the lower lias of the Salzburg Alps, among them the types of 3 new genera (*Ellipsocephalus*, *Triactinosphæra*, and *Spongocyrta*).