

*The Taxonomicon*  
***Systema Naturae 2000***

Classification of  
**Class *Miliolata***  
(protozoa)  
down to Family

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Universal Taxonomic Services

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# Systema Naturae 2000

## - Class Miliolata -

[Kingdom *Chromista*: Phylum *Retaria* - protozoa]

Class *Miliolata* Saidova, 1981 - porcelaneous foraminifers

- 1 Family †*Milioliporidae* Brönnimann & Zaninetti, 1971, incertae sedis
- 2.1 Family †*Pyreninidae* Mikhalevich, 1999, incertae sedis
- 2.2 Family †*Nezzazatidae* Hamaoui & Saint-Marc, 1970, incertae sedis
- 3 Subclass *Miliamminana* Mikhalevich, 1980
  - 1 Order *Lituotubida* Mikhalevich, 1992
    - 1 Family *Lituotubidae*\* Loeblich & Tappan, 1984
    - 2 Family *Trochamminoididae* Haynes & Nwabufu-Ene, 1998
  - 2 Order *Schlumbergerinida*\* Mikhalevich, 1980
    - 1 Family *Rzehakinidae* Cushman, 1933
    - 2 Family *Miliamminidae* Saidova, 1981
    - 3 Family *Trilocularenidae* Mikhalevich & Kaminski, 2008
    - 4 Family *Ammomassilinidae* Mikhalevich & Kaminski, 2008
    - 5 Family *Sigmoilopsidae* Vella, 1957
    - 6 Family *Schlumbergerinidae*\* Mikhalevich, 1980
    - 7 Family *Ammofluntinidae* Mikhalevich & Kaminski, 2008
  - 3 Order *Haplophragmiida* Loeblich & Tappan, 1989
    - 1 Superfamily *Recurvoidoidea* Alekseychik-Mitskevich, 1973
      - 1 Family *Cystamminidae* Mikhalevich, 2003
      - 2.1 Family *Recurvoididae*\* Alekseychik-Mitskevich, 1973
      - 2.2 Family *Ammobaculinidae* Saidova, 1981
      - 2.3 Family *Acupeinidae* Brönnimann & Zaninetti, 1984
      - 2.4 Family †*Plectorecurvoididae* Loeblich & Tappan, 1964
    - 2 Superfamily *Haplophragmioidea*\* Eimer & Fickert, 1899
      - 1 ?Genus *Lituolina* Goës, 1881
      - 2 Family *Haplophragmiidae*\* Eimer & Fickert, 1899
      - 3 Family †*Mesoendothyridae* Voloshinova, 1958
    - 3 Superfamily *Labyrinthidomatidoidea* Loeblich & Tappan, 1987
      - 1 Family *Labyrinthidomatidae*\* Loeblich & Tappan, 1987
  - 4 Order *Sphaeramminida* Mikhalevich & Kaminski, 2003
    - 1 Family *Sphaeramminidae*\* Cushman, 1933
  - 5 Order *Lituolida* Lankester, 1885
    - 1 ?Superfamily *Coscinophragmatoidea* Thalmann, 1951
      - 1 Family *Haddonidae* Saidova, 1981
      - 2 Family *Coscinophragmatidae*\* Thalmann, 1951
    - 2 Superfamily *Lituoloidea*\* de Blainville, 1827
      - 1 Family *Lituolidae*\* de Blainville, 1827
      - 2 Family *Buzasinidae* Mikhalevich, 2003
      - 3 Family †*Mayncinidae* Loeblich & Tappan, 1985
      - 4 Family *Placopsilinidae* Rhumbler, 1913
    - 3 Superfamily †*Barkerinoidea* Smout, 1956
      - 1 Family †*Barkerinidae*\* Smout, 1956
      - 2 Family †*Biplanatidae* Mikhalevich, 1992
    - 4 Superfamily *Biokovinoidea* Gusic, 1977
      - 1 Family †*Charentiidae* Loeblich & Tappan, 1985
      - 2 Family †*Lituoliporidae* Gusic & Velic, 1978
      - 3 Family †*Biokovinidae*\* Gusic, 1977
      - 4 Family †*Labyrinthinidae* Septfontaine, 1988
      - 5 Family †*Buccicrenatidae* Loeblich & Tappan, 1985
      - 6 Family †*Choffatellidae* Maync, 1958
      - 7 Family †*Hottingeritidae* Loeblich & Tappan, 1985
      - 8 Family †*Pseudochoffatellidae* Loeblich & Tappan, 1985
      - 9 Family *Spirocyclinidae* Munier-Chalmas, 1887
  - 6 Order *Cyclolinida* Mikhalevich, 1992
    - 1 Superfamily †*Cyclolinoidea*\* Loeblich & Tappan, 1964
      - 1 Family †*Cyclolinidae*\* Loeblich & Tappan, 1964
    - 2 Superfamily *Cyclopsinelloidea* Loeblich & Tappan, 1984
      - 1 Family *Cyclopsinellidae*\* Loeblich & Tappan, 1984
      - 2 Family †*Ilerdorbiae* Hottinger & Caus, 1982
      - 3 Family †*Orbitopsellidae* Hottinger & Caus, 1982
    - 3 Superfamily †*Vaniinoidea* Mikhalevich, 2003
      - 1 Family †*Vaniidae* Mikhalevich, 2003
  - 7 Order *Loftusiida* Kaminski & Mikhalevich, 2003
    - 1 Family *Loftusiidae*\* Brady, 1884
- 4 Subclass *Miliolana*\* Saidova, 1981
  - 1 Group †"*fusulinoids*" Fursenko, 1958
    - 1 Superorder †*Endothyroida* Fursenko, 1958
      - 1 Order †*Tournayellida* Hohenegger & Piller, 1973
        - 1 Superfamily †*Tournayelloidea*\* Glaessner, 1945
          - 1 Family †*Tournayellidae*\* Glaessner, 1945
          - 2 Family †*Lituotubellidae* Miklukho-Maklay, 1963

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- 3 Family †*Laxoendothyridae* Hance, Hou & Vachard, 2011
  - 2 Superfamily †*Chernyshinelloidea* Reytlinger, 1958
    - 1 Family †*Chernyshinellidae*\* Reytlinger, 1958
    - 2 Family †*Mstiniidae* Lipina, 1989
    - 3 Family †*Palaeospiroplectaminidae* Loeblich & Tappan, 1984
  - 2 Order †*Endothyrida*\* Fursenko, 1958
    - 1 Superfamily †*Endothyroidea*\* Brady, 1884
      - 1 Family †*Endothyridae*\* Brady, 1884
      - 1.n Family †*Haplophragmellidae* Reytlinger, 1959
      - 2 Family †*Endothyranopsidae* Reytlinger, 1958
      - 3 Family †*Globoendothyridae* Reytlinger, 1959
      - 4 Family †*Dainellidae* Cozar & Vachard, 2001
      - 5 Family †*Loeblichiiidae* Cummings, 1955
      - 6 Family †*Endostaffellidae* Loeblich & Tappan, 1984
      - 7 Family †*Endotebidae* Vachard, Martini, Rettori & Zaninetti, 1994
      - 8 Family †*Endotriadidae* Vachard, Martini, Rettori & Zaninetti, 1994
    - 2 Superfamily †*Bradyinoidea* Reytlinger, 1950
      - 1 Family †*Bradyinidae*\* Reytlinger, 1950
      - 2 Family †*Janischewskinidae* Reytlinger, 1996
  - 2 Superorder †*Ozawainelloida* Solovieva, 1980
    - 1 Order †*Ozawainellida*\* Solovieva, 1980
      - 1 Genus †*Eostaffelloides* Miklukho-Maklay, 1959, incertae sedis
      - 2 Genus †*Kangvarella* Saurin, 1962, incertae sedis
      - 3 Genus †*Hubeiella* Lin, 1977, incertae sedis
      - 4 Family †*Eostaffellidae* Mamet, 1970
      - 5 Family †*Ozawainellidae*\* Thompson & Foster, 1937
      - 6 Family †*Reichelinidae* Miklukho-Maklay, 1959
    - 3 Superorder †*Fusulinoida*\* Fursenko, 1958
      - 1 Order †*Staffellida* Miklukho-Maklay, 1949
        - 1 Family †*Pseudoendothyridae* Mamet, 1970
        - 2 Family †*Nankinellidae* Miklukho-Maklay, 1963
        - 3 Family †*Cheniidae* Kahler & Kahler, 1966
        - 4 Family †*Staffellidae*\* Miklukho-Maklay, 1949
        - 5 Family †*Pisolinidae* Rauser, 1985
        - 6 Family †*Kahlerinidae* Leven, 1963
        - 7 Family †*Pseudostaffellidae* Putrja, 1956
      - 2 Order †*Schubertellida* Skinner, 1931
        - 1 Family †*Schubertellidae*\* Skinner, 1931
        - 2 Family †*Boultoniidae* Skinner & Wilde, 1954
        - 3 Family †*Palaeofusulinidae* Miklukho-Maklay, 1963
        - 4 Family †*Yangchieniidae* Leven, 1987
      - 3 Order †*Fusulinida*\* Fursenko, 1958
        - 1.1 Family †*Profusulinellidae* Solovieva, 1996
        - 1.2 Family †*Aljutovellidae* Solovieva, 1996
        - 2 Family †*Fusulinidae*\* Möller, 1878
        - 3 Family †*Hemifusulinidae* Putrja, 1956
        - 4 Family †*Fusulinellidae* Staff & Wedekind, 1910
        - 5 Family †*Wedekindellinidae* Kahler & Kahler, 1966
      - 4 Order †*Schwagerinida* Solovieva, 1985
        - 1 Family †*Triticitidae* Davydov, 1986
        - 2 Family †*Rugosofusulinidae* Davydov, 1980
        - 3 Family †*Schwagerinidae*\* Dunbar & Henbest, 1930
        - 4 Family †*Pseudofusulinidae* Dutkevich, 1934
        - 5 Family †*Polydiexodinidae* Miklukho-Maklay, 1953
      - 5 Order †*Neoschwagerinida* Minato & Honjo, 1966
        - 1 Family †*Misellinidae* Miklukho-Maklay, 1958
        - 2 Family †*Verbeekinidae* Staff & Wedekind, 1910
        - 3 Family †*Neoschwagerinidae*\* Dunbar & Condra, 1927
        - 4 Family †*Sumatrinidae* Silvestri, 1933
        - 5 Family †*Pseudodoliolinidae* Leven, 1963
  - 2 Group "*milioloids*" Delage & Hérouard, 1896
    - 1 Superorder *Squamulinoida* Mikhalevich, 1988
      - 1 Order *Squamulinida*\* Mikhalevich, 1988
        - 1 Family *Squamulinidae*\* Reuss & Fritsch, 1861
      - 2 Superorder *Cornuspiroida* Jirovec, 1953
        - 1 Order *Cornuspirida*\* Jirovec, 1953
          - 1 Suborder *Cornuspirina*\* Jirovec, 1953
            - 1 Family *Cornuspiridae*\* Schultze, 1854
            - 2 Family †*Hoyenellidae* Rettori, 1994
          - 2 Suborder *Hemigordiopsina* Mikhalevich, 1986
            - 1 Superfamily *Hemigordiopsidea*\* Nikitina, 1969
              - 1 Family *Hemigordiopsidae*\* Nikitina, 1969

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## - Class Miliolata -

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- 2 Family †*Hemigordiidae* Reitlinger, 1993
  - 2 Superfamily *Shanitoidea* Loeblich & Tappan, 1986
    - 1 Family †*Shanitidae*\* Loeblich & Tappan, 1986
    - 2 Family †*Baisaliniidae* Loeblich & Tappan, 1986
    - 3 Family †*Neodiscidae* Lin, 1984
  - 3 Superorder *Costiferoida* Mikhalevich, 1988
    - 1 Order †*Costiferida*\* Mikhalevich, 1988
      - 1 Family †*Costiferidae*\* Senowbary-Daryan & Zaninetti, 1986
  - 4 Superorder *Milioloida*\* Delage & Hérouard, 1896
    - 1.1 Order *Nubeculariida* Jones, 1875
      - 1 Superfamily *Nubecularioida*\* Jones, 1875
        - 1 Family *Nubeculariidae*\* Jones, 1875
        - 2 Family *Ophthalmidiidae* Wiesner, 1920
        - 3 Family †*Meandroloculinidae* Bogdanovich, 1981
        - 4 Family *Wiesnerellidae* Saidova, 1981
        - 5 Family *Nodobaculariellidae* Bogdanovich, 1981
        - 6 Family †*Spiriamphorellidae* Senowbary-Daryan & Zaninetti, 1986
      - 2 Superfamily *Discospirinoidea* Wiesner, 1931
        - 1 Family *Discospirinidae*\* Wiesner, 1931
    - 1.2 Order *Miliolida*\* Delage & Hérouard, 1896
      - 1 Suborder *Miliolina*\* Delage & Hérouard, 1896
        - 1 Superfamily *Quinqueloculinoidea* Cushman, 1917
          - 01 Family *Hauerinidae* Schwager, 1876
          - 02 Family *Tubinellidae* Rhumbler, 1906
          - 03 Family †*Pavoninoididae* Saidova, 1981
          - 04 Family *Quinqueloculinidae*\* Cushman, 1917
          - 05 Family *Spiroloculinidae* Wiesner, 1920
          - 06 Family *Planispiroidinidae* Saidova, 1981
          - 07 Family *Massiliniidae* Thalmann, 1941
          - 08 Family *Sigmoilinitidae* Luczkowska, 1974
          - 09 Family *Glomulinidae* Saidova, 1981
          - 10 Family *Triloculinidae* Bogdanovich, 1981
          - 11 Family *Pyrgoidae* Mikhalevich, 1983
          - 12 Family †*Miliolechinidae* Zaninetti, Ciarapica, Cirilli & Cadet, 1985
        - 2 Superfamily *Milioloidea*\* Ehrenberg, 1839
          - 1 Family *Miliolidae*\* Ehrenberg, 1839
          - 2 Family †*Neaguitinidae* Andersen, 1984
        - 3 Superfamily *Riveroinoidea* Saidova, 1981
          - 1 Family *Riveroinidae*\* Saidova, 1981
        - 4 Superfamily *Austrotrillinoidea* Loeblich & Tappan, 1986
          - 1 Family †*Austrotrillinidae*\* Loeblich & Tappan, 1986
          - 2 Family †*Brebiniidae* Mikhalevich, 1986
          - 3 Family *Pseudohauerinidae* Mikhalevich, 1986
      - 2 Suborder *Alveolinina* Mikhalevich, 1980
        - 1 Family *Fabulariidae* Ehrenberg 1839
        - 2 Family *Alveolinidae*\* Ehrenberg, 1839
        - 3 Family *Keramosphaeridae* Brady, 1884
    - 2 Order *Soritida* Schultze, 1854
      - 1 Superfamily "*Peneroplidea*" Schultze, 1854
        - 1 Family *Peneroplidae*\* Schultze, 1854
        - 2 Family *Fischerinidae* Millett, 1898
        - 3 Family *Fischerinellidae* Saidova, 1981
        - 4 Family *Zoyaellidae* Saidova, 1981
      - 2 Superfamily *Meandropsinoidea* Henson, 1848
        - 1 ?Family †*Orduellidae* Sirel, 1999
        - 2 Family †*Meandropsinidae*\* Henson, 1948
        - 3 Family *Rhapydioninidae* Keijzer, 1945
        - 4 Family †*Fusarchaiasidae* Saidova, 1981
        - 5 Family †*Hottingerinidae* Mikhalevich, 1988
      - 3 Superfamily *Soritoidea*\* Ehrenberg, 1839
        - 1 ?Family †*Siphoniferidae* Senowbari-Daryan & Zaninetti, 1986
        - 2 Family *Soritidae* Ehrenberg, 1839
        - 3 Family *Archaiasidae* Cushman, 1927
          - 4.1 Family †*Praerhapydioninidae* Hamaoui & Fourcade, 1973
          - 4.2 Family †*Cycledomiidae* Mikhalevich, 1988

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**Mikhalevich, V.I.** 2013. New insight into the systematics and evolution of the foraminifera. *Micropaleontology* **59** (6): 493-527.

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