SIX NEW GENERIC NAMES IN THE MYCETOZOIDA (TRICHIIDAE) AND FORAMINIFERIDA (FISCHERINIDAE, BULIMINIDAE, CAUCASINIDAE, AND PLEUROSTOMELLIDAE), AND A REDESCRIPTION OF LOXOSTOMUM (LOXOSTOMIDAE, NEW FAMILY).

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A restudy of foraminiferal genera, based on their type species, for the "Treatise on Invertebrate Paleontology," has shown that certain species require new generic taxons for their placement as they can no longer be retained in the genera to which previously they had been assigned. As no new generic names are to be included in the "Treatise," the four new genera are here briefly described. All are based on previously described species. In addition, one genus is redefined, a new family, Loxostomidae, proposed and one generic homonym in the Foraminiferida is renamed, as is a generic homonym in the Mycetozoida.

Subphylum SARCODINA Schmarda, 1871
Class RHIZOPODEA von Siebold, 1845
Subclass LOBOSIA Carpenter, 1861
Order MYCETOZOIDA de Bary, 1859
Suborder EU-MYCETOZOINA Poche, 1913
Superfamily TRICHIACEA Fries, 1821
Family Trichiidae Fries, 1821
Subfamily Prototrichiinae MacBride, 1899, nom. transl.


In the suprageneric classification of the Rhizopoda (Loeblich and Tappan, 1961) in which were listed all family group names and syn-
onomies, the family group taxon containing the four genera *Margarita* Lister, 1894, *Dianema* Rex, 1891, *Prototricha* Rostafinski, 1876, and *Listerella* E. Jahn, 1906, was regarded as of subfamily status. Each of these four genera has been made the basis for a family name (Dianemaeae MacBride, 1899; Prototrichiaeae MacBride, 1899; Margaritidae Doflein, 1909; and Listerellaceae E. Jahn, 1928). Because *Dianema* Rex, 1891, was shown to be a homonym of *Dianema* Cope, 1871, and renamed as *Dianemina* Loeblich and Tappan, 1961, a substitute subfamily name Dianemininae was proposed. However, the above-mentioned family group names based on the remaining included genera have priority over this and the family group name Prototrichiae is here corrected and transferred to subfamily status. Of the remaining genera, *Margarita* Lister, 1899, is also a homonym and is renamed below. *Listerella* E. Jahn, 1906, is a valid senior homonym of *Listerella* Cushman, 1933 (which was renamed *Schenckiella* by Thalmann, 1942).

**Margaritellina** Loeblich and Tappan, new name

*Margaritellina* is proposed for *Margarita* Lister, 1894, Monogr. Mycetoza: 202 (non *Margarita* Leach, 1814; non *Margarita* Leach, 1819; non *Margarita* Lea, 1836 and non *Margarita* Lea, 1838). The type species is *Physarum metallicum* Berkeley, 1837 [= *Margarita metallica* Lister, 1894], Mag. Zool. and Bot., 1:49.

**Class Reticularea** Lankester, 1885

**Subclass Granuloreticulosa** de Saedeleer, 1934

**Order Foraminiferida** Zbortzewski, 1834

**Suborder Miliolina Delage and Hérouard, 1896**

**Superfamily Miliolacea Ehrenberg, 1839**

**Family Fischerinidae Millett, 1898**

**Subfamily Fischerininae Millett, 1898**

**Fischerinella** Loeblich and Tappan, new genus.


Test free, trochospherically coiled; proloculus large and globular, followed by long tubular chamber of almost a complete volution, later chambers gradually shortening to 3 or 4 per volution, chambers low and broad as seen from the spiral side, extending to the umbilicus on the opposite side; spiral suture slightly depressed, intercameral sutures flush; wall very thin, delicate and fragile, surface may be ornamented by radial striae; aperture rounded at the open end of the final chamber.

**Remarks:** The type species was originally placed in *Fischerina* Terquem, and the later descriptions of *Fischerina* have been based to some extent upon this species. Thus the genus and the subfamily and family based on it were regarded as trochospiral. A restudy by the writers of the type species of *Fischerina* (*F. rhodiensis* Terquem), as based on the holotype in the Muséum National d’Histoire Naturelle, Paris, has shown it to be planispiral and evolve on both sides, with a symmetrical
equatorial aperture. Fischerina is therefore restricted to include only these planispiral species, and the new genus Fischerinella is proposed for the trochospiral forms such as Fischerina helix. The new genus is placed in the subfamily Fischerininae and bears the same morphologic relationship to Fischerina as the perforate calcareous Conicospirillina bears to Spirillina.

Occurrence: Recent, Kerimba Archipelago and New Zealand.

Zoyaella Loeblich and Tappan, new name


Type species: Ceratina trochamminoides Goës, 1894, Ibid.: 122.

Test free, discoidal, proloculus followed by tubular second chamber, later streptospirally enrolled as in Glomulina Rhumbler and finally becoming planispiral and evolute, with numerous chambers per whorl; sutures depressed, radiate; wall calcareous, porcellanous; aperture a high arch at the open end of the final chamber.

Remarks: Ceratina was regarded by Galloway (1933: 111) as a synonym of Fischerina Terquem, 1878. Restudy by the writers of the type specimen of Fischerina rhodiensis showed that the genus should be restricted to forms which are planispiral throughout, and the early glomospirine or streptospiral coiling of Ceratina trochamminoides shows its closer relationship to Glomulina. The later planispiral development separates it from Glomulina. As Ceratina Goës, 1894 is a homonym of Ceratina Latreille, 1802 and Ceratina Menge, 1868, the new name Zoyaella is here proposed.

The genus is named in honor of Professor Zoya Z. Stschedrina of the Zoological Institute, Academy of Science U.S.S.R., Leningrad, in recognition of her contributions to the knowledge of Recent Arctic and Antarctic foraminifera.

Occurrence: Recent, Azores at 540 meters.

Suborder ROTALINA Delage and Hérouard, 1896
Superfamily BULMINACEA Jones, 1875
Family Buliminidae Jones, 1875
Subfamily Pavonininae Eimer and Fickert, 1899

Fijiella Loeblich and Tappan, new genus


Test free, pyramidal and triangular in section; chambers broad and low, triserially arranged throughout; wall calcareous, coarsely perforate, surface smooth, lateral margins carinate and may be spinose; primary aperture a narrow, elongate basal slit, terminal face with a supplementary cribrate aperture.

Remarks: Fijiella, n. gen. differs from Reussella in the presence of
the supplementary cribrate aperture, from Trimosina in having a basal primary aperture and supplementary cribrate aperture rather than a single areal slit, and from Chrysalidinella in retaining the primary aperture and in lacking a uniserial development. In addition to the type species, Trimosina perforata Cushman, 1924 also belongs to the present genus.

Occurrence: Recent, Fiji, Tropical Pacific, at 40-50 fathoms.

Superfamily Cassidulinacea d’Orbigny, 1839
Family LOXOSTOMIDAE Loeblich and Tappan, new family

Test biserial or may become uniserial in the later stage; wall calcareous, perforate-granular in structure; aperture primitively basal, or may become terminal, without a toothplate or internal siphon.

Remarks: A few genera previously placed in the Buliminacea have been shown not to possess the internal toothplates characteristic of that superfamily. Their wall structure also differs and has been reported to be composed of agglutinated calcareous grains. Examination in polarized light shows the type species of Loxostomum to have a perforate-granular calcareous wall. The present family includes Loxostomum and Aragonia.

Loxostomum Ehrenberg, 1854


Test elongate, compressed, quadrate in section, with flat or concave sides; chambers biserially arranged throughout, strongly overlapping and arched in the adult with a tendency to become uniserial; sutures limbate, arched, the sutural thickening merging laterally into the longitudinal carinae at the four margins; wall calcareous, finely perforate; aperture terminal, slit-like to ovate, commonly with a lip which may be very finely tuberculate, but lacking any internal toothplate.

Remarks: The synonymy of Bolivinitella with Loxostomum was noted previously by Hofker (1951: 44), who suppressed Bolivinitella, but also regarded Loxostomum as a synonym of Bolivina. Some of the former species of Loxostomum should be referred to the new genus Coryphostoma, and Loxostomum is here restricted to include only those species previously placed in Bolivinitella, with perforate granular wall structure.

Loxostomum subrostratum Ehrenberg, the type species, was originally described from the Cretaceous chalk of Meudon, figured from a specimen
mounted in balsam and viewed by transmitted light. The original figures as shown by Cushman (1937, Pl. 22, Fig. 22) are almost identical in appearance to Bolivinita eleyi Cushman, and in fact specimens found at Meudon were referred to Bolivinitella eleyi forma typica by Marie (1941) in describing the genus Bolivinitella. The specimens illustrated as B. eleyi by Marie (1941, Pl. 29, Figs. 282 a–c) are typical of L. subrostratum and the two “species” are not only congeneric, but almost certainly conspecific.

Not only has Loxostomum been generally misidentified, but most of the species previously placed therein (except by Ehrenberg) contain apertural toothplates, such as are found in the Bolivinitidae, whereas L. subrostratum does not have such apertural features and thus must be removed.

Family Caucasinidae N. K. Bykova, 1959
Subfamily Fursenkoininae Loeblich and Tappan, 1961
*Coryphostoma* Loeblich and Tappan, new genus

*Loxostomum* (part) of authors, not of Ehrenberg, 1854.


Test free, elongate, narrow, early chambers biserially arranged, later chambers becoming cuneiform with a tendency to become uniserial; wall calcareous, finely perforate, granular in structure; aperture loop-shaped in the early stage, extending from the base of the final chamber, becoming terminal in the adult, with internal toothplate.

*Remarks:* Because of the revision of *Loxostomum*, based on the type species, many species previously there referred were left nameless and the present generic name is proposed for them. *Coryphostoma* differs from *Loxostomum* in having an internal toothplate, being rounded in section, and in the absence of sharply keeled margins. It differs from *Rectobolivina* in having a granular rather than radially built wall, and in the later chambers being cuneate, without an elongate uniserial and rectilinear stage. *Loxostomoides* Reiss, 1957, differs in having a radically built wall, and retral processes with re-entrants and lobes or crenulations of the chamber margins along the sutures. The name is derived from *Koryphe*, Gr., top, crown, head + *stoma*, Gr., mouth, and refers to the terminal aperture.

*Geologic range:* Upper Cretaceous (Campanian), Recent.

Family Pleurostomellidae Reuss, 1860
Subfamily Wheelereellinae Petters, 1954
*Bandyella* Loeblich and Tappan, new genus


Test free, short, robust; chambers triserially arranged in the early stage, later biserial, and final chambers cuneate and uniserial; wall
calcereous, perforate granular in structure; aperture subterminal, slightly excentric, with a T-shaped opening consisting of a crescentic slit just below the hooded terminus, with a short perpendicular slit extending down the face.

Remarks: Bandyella resembles Wheelerella Petters in being triserial in the early stage, but differs in having a T-shaped excentric or hooded aperture instead of a straight terminal slit-like aperture. Ellipsopoly morphina Silvestri resembles the present genus in the apertural form, but has only a biserial early stage before the uniserial later development.

The generic name is in honor of Dr. Orville Bandy, University of Southern California, in recognition of his work on Californian foraminifera.

Geologic range: Upper Cretaceous (Coniacian-Campanian), California.

Literature Cited


