

A Proposed Revision of the Rissoacean Families

Rissoidae, Rissoinidae, and Cingulopsidae

(Mollusca : Gastropoda)

BY

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(1 Text figure)

DURING THE PREPARATION of the portion of the *Treatise of Invertebrate Paleontology* dealing with the three families Rissoidae, Rissoinidae, and Cingulopsidae of the superfamily Rissoacea, it quickly became apparent that important changes would have to be made in the position and rank of many of the named genera, a few type species would have to be designated, and several new subfamilies would have to be proposed. For these reasons, and because these changes could not be accompanied by necessary explanation in the *Treatise*, this article seems to be needed as an advance treatment.

A file, in preparation for the *Treatise*, was begun by the late Dr. Julia Gardner; it was turned over to Dr. Myra Keen of Stanford University upon Dr. Gardner's death. Lee A. Smith, then a graduate student in Dr. Keen's department, added much information to the growing file. Priscilla Militante worked up the forms that she believed to be members of the family Rissoinidae and prepared her unpublished doctoral dissertation on that group. Dr. Keen has, since that time, added some solutions for nomenclatural problems.

MONTAGU and other early workers included these small forms in the genus *Turbo*. Slowly, more and more genera were named. The first important review of the group was that of VON MOHRENSTERN (1861 - 1864). BUCQUOY, DAUTZENBERG & DOLLFUS (1884), and TRYON (1887) included treatments, as did COSSMANN (1921). There has not been since THIELE (1929 - 1935) and WENZ (1939 - 1944) a comprehensive review of these families. Many genera have been named in recent years, especially in the literature of Australia and New Zealand, where generic names have proliferated nearly as fast as have specific names. LASERON (1956) is a useful reference to a major portion of the Australian fauna.

FRETTER & GRAHAM (1962) believe the three Rissoacean families Hydrobiidae, Rissoidae, and Assimineidae

to be very closely related to one another, Tornidae to be somewhat less related; *Barleeia*, the only British representative of the Rissoinidae, to be quite distinct, and the Skeneopsidae, Omalogyridae, Rissoellidae, and Cingulopsidae to be so distinct as to be doubtfully even Rissoacean. The family Cingulopsidae was recently created by FRETTER & PATIL (1959). MOORE (1962) considers the families Caecidae and Ctiloceratidae to be members of the Rissoacea, close to the Tornidae.

The family Rissoinidae has been here built around forms known to have an apophysis on the inner side of the horny operculum (see Figure 1) and those fossil and living genera that can convincingly be assigned on the basis of external morphology. If most members of this group are similar to *Barleeia*, in which the operculum is of similar form, then we may also characterize the family on the basis of the anatomical work of FRETTER & GRAHAM on *Barleeia* as (1) having a complex reproductive system, (2) lacking a metapodial tentacle, (3) not having a free veliger larva, and (4) having the secretive tissue of the posterior pedal mucous gland confined to the foot. The tentacles of *Barleeia* are moderate in length, simple, and obtuse at their bases. The foot is a little emarginate behind and truncate in front. Some of these characters, such as the lack of a free swimming larva, may not be characteristic of the entire family, but only of the British *Barleeia*.

The Rissoidae, on the other hand, have (1) a less complex reproductive system, (2) a metapodial tentacle developed from the opercular lobe of the foot (some Cingulas do not have one), (3) a free swimming veliger larva, with two British exceptions, and (4) the secretive tissue of the posterior pedal mucous gland extending into the haemocoel of the head. The tentacles of the Rissoids, in contrast to those of *Barleeia*, appear to be long and ciliated. The foot is attenuated behind.

The family Cingulopsidae is characterized by having a small unicuspid rachidian tooth, two esophageal pouches, no jaws, no crystalline style, no penis, and a diaulic female duct. Again, these features indicate a considerable departure from the Rissoidae.

It has long been known that the difference in operculum between the Rissoidae and the Rissoinidae is one way to tell the two closely related families apart, for, as it turns out, there are smooth, cancellate, axially, and concentrically sculptured members in both families. Figure 1 is of the operculum of *Barleeia rubra* (J. ADAMS, 1797). Also observed or previously illustrated as possessing a rissoinid operculum were *Diala marmorea* CARPENTER, 1864;

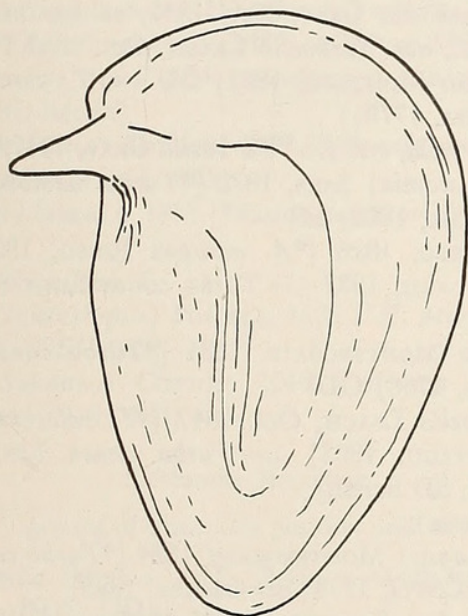


Figure 1: Operculum of *Barleeia rubra* (J. ADAMS, 1797), showing the apophysis on the inner side of the horny structure.

Dardanula olivacea HUTTON, 1882 (type of *Dardanula*); *Eatoniella kerguelensis* (SMITH, 1875) (type of *Eatoniella*); *Skenella georgiana* MARTENS & PFEFFER, 1886 (type of *Skenella*); and *Barleeia* (*Nodulus*) *contorta* (JEFFREYS, 1856) (type of *Nodulus*). Radulae of some of the European species have been illustrated by SARS in 1878.

The following classification is tentative, and there is much room for change. As a basis for the arrangement, we have the anatomical work of the British and the opercula that have been studied or previously illustrated. The rest becomes guess work.

Rissoidae: The trend of European workers seems to be the synonymizing of some of the many generic names and the use of others as subgenera. I have done more subjective synonymizing of the names in this family than in the Rissoinidae, following this trend. I found it sufficiently difficult to believe West American forms to be congeneric with the comparatively large and globular type of the genus *Alvania*, *A. cimex* (LINNAEUS, 1758), that I have elevated *Alvinia* to full generic rank and consider our species to be members of that genus, *Willettia* being a subgenus of *Alvinia*. It is a difficult decision as to which European forms come under *Alvania* or *Alvinia*, but the *Alvanias* are larger and more globular.

The genera grouped around *Haurakia* appear to be members of the Rissoidae, being more closely related to *Rissoa* than to *Alvania*. The many genera grouped as only questionably Rissoidae, are, for the most part, from Australia and New Zealand. It remains for more detailed work to show whether they are indeed Rissoids.

The new subfamily Anabathroninae, formed around the genus *Anabathron* and other Pacific Ocean genera (plus one from the Atlantic), seems a natural grouping.

The new subfamily Cingulinae is formed around the European *Cingula*. It is to be noted that the West American *Cingula martyni* DALL, 1886 is a member of the subgenus *Falsicingula* HABE, 1958. The remaining genera following *Cingula* in this subfamily are nearly all Australian, at present of uncertain position and rank. I have not been able to study pertinent material.

The subfamily Stenothyridinae has been added here on the advice of Dr. J. P. E. Morrison of the United States National Museum.

Rissoinidae: The family Rissoinidae is in somewhat better shape, since most of its members have in common a clearcut opercular character. The genus *Rissoina* is so well-defined a unit that I consider the many names proposed by the Australian workers to be at best of subgeneric rank. A few forms, however, stand out conspicuously enough to be left as genera.

The Phosinellinae, a new subfamily, is characterized by cancellate sculpture of varying degrees of intensity. A few of the genera are included in this subfamily only provisionally, among them *Emblanda* and *Herewardia* of IREDALE (1955) and the fossil genera *Anteglosia* VOKES, 1948 and *Cossmannia* NEWTON, 1891.

The new subfamily Zebininae is built around smooth genera or genera with confined axial sculpture.

The Barleeinae are assumed to belong to the Rissoinidae on the basis of the operculum in the type species of *Barleeia* and in other related genera. Perhaps this group is sufficiently different to warrant being placed in a separate family. Many genera are being placed here with misgivings.

As can be easily seen, much more work remains to be done, and it is my hope that this compilation, rearrangement, and discussion will stimulate others to consider the problems concerned with these prolific small forms.

CONVENTIONS

The following conventions are adopted herein. They are, for the most part, those of the *Treatise of Invertebrate Paleontology*.

- (1) Brackets [] and an asterisk (*) indicate the type species of the genus.
- (2) Type designations are abbreviated as follows:
M = Monotypy
SD = Subsequent Designation
OD = Original Designation
- (3) Other abbreviations:
auctt. = of authors
emend. = emendation
err. = error
ex = from
MS. = manuscript
nom. = name
non = not, not of
pro = for
transl. = translation (from one taxonomic level to another - nom. transl.)
van. = invalid emendation (*nomen vanum*)
? (before a generic name) = position questioned
? (before =) = synonymy questioned

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Family RISSOIDAE H. & A. ADAMS, 1854

Subfamily RISSOINAE H. & A. ADAMS, 1854

nom. transl. STOLICZKA, 1868, ex Rissoidae

Rissoa FRÉMINVILLE, 1813 (genus without species) [**R. ventricosa* DESMAREST, 1814; SD BUCQUOY, DAUTZENBERG & DOLLFUS, 1884]

= *Anatasia* GISTEL, 1848, nom. van.

= *Apanthausa* GISTEL, 1848, nom. van.

= *Persephona* LEACH, 1852, non LEACH, 1817

= *Rissoia*, emend., auctt.

R. (*Rissoa*)

R. (*Apicularia*) MONTEROSATO, 1884 [**Rissoa similis* SCACCHI, 1836; SD CROSSE, 1885]

R. (*Goniostoma*) VILLA, 1841, ex MOHRENSTERN MS (not preocc. by SWAINSON, 1840, err. pro *Gonyostoma* SWAINSON, 1840). [**Turbo auriscalpium* LIN-

NAEUS, 1758; SD herein]

= *Zippora* LEACH, 1847 [**Z. drummondii* LEACH, 1847 (= *Turbo auriscalpium* LINNAEUS, 1758); M]

R. (*Loxostoma*) BIVONA-BERNARDI, 1838 [**Rissoa monodonta* PHILIPPI, 1836, ex BIVONA-BERNARDI MS; M]

= *Loxotoma*, err., auctt.

= *Schwartzia* BUCQUOY, DAUTZENBERG & DOLLFUS, 1884 [**Rissoa monodonta* (PHILIPPI, 1836); M]

R. (*Manzonina*) BRUSINA, 1870 [**Turbo costatus* J. ADAMS, 1797, non VON SALIS, 1793 (= *T. crassa* KANMACHER in ADAMS, 1798); M]

R. (*Pusillina*) MONTEROSATO, 1884 [**Rissoa pusilla* PHILIPPI, 1836, non GRATELOUP, 1828 (= *R. dolium* NYST, 1843); M]

= "*Turboella* GRAY, Nov. 1847, ex LEACH MS.," auctt., non *Turboella* LEACH, Oct. 1847 [**Turbo parvus* MONTAGU, 1803; OD (= *T. parvus* DA-COSTA, 1778)]

= *Turbella*, err. pro "*Turboella* GRAY, 1847," auctt.

R. (*Rissostomia*) SARS, 1878 [**Turbo membranaceus* J. ADAMS, 1800; M]

Alvania RISSO, 1826 [**A. europea* RISSO, 1826, SD WINCKWORTH, 1932 (= *Turbo cimex* LINNAEUS, .. 1758)]

= *Acinus* MONTEROSATO, 1884 [**Turbo cimex* LINNAEUS, 1758; OD]

= *Turboella* LEACH, Oct. 1847 [**T. calathriscus* .. (MONTAGU, 1803) (= *Turbo cimex* LINNAEUS, 1758); SD herein]

A. (*Alvania*)

A. (*Acinopsis*) MONTEROSATO, 1884 [**Turbo cancellatus* DACOSTA, 1778; SD CROSSE, 1885]

A. (*Acinulus*) SEGUENZA, 1903 [**Rissoa cimicoides* FORBES, 1844; M]

A. (*Galeodina*) MONTEROSATO, 1884 [**Turbo carinatus* DACOSTA, 1778, (?) non BORN, 1778 (= *T. striatulus* DACOSTA, 1778, non LINNAEUS, 1758); M]

A. (*Galeodinopsis*) SACCO, 1895 [**Rissoa tiberiana* COPPI, 1876; OD]

A. (*Massotia*) BUCQUOY, DAUTZENBERG & DOLLFUS, 1884 [**Rissoa lactea* MICHAUD, 1830; OD]

Alvinia MONTEROSATO, 1884 [**Rissoa weinkauffi* MONTEROSATO, 1877, ex MOHRENSTERN, MS; SD CROSSE, 1885]

A. (*Alvinia*)

A. (*Actonia*) MONTEROSATO, 1884 [**Rissoa testae* ARADAS & MAGGIORE, 1843; SD CROSSE, 1885]

A. (*Alcidiella*) COSSMANN, 1921, ex MONTEROSATO MS., nom. nov. pro *Alcidia* MONTEROSATO, 1890, non WESTWOOD, 1879 [**Alcidia spinosa* MONTE-

ROSATO, 1890, *nom. nov. pro Rissoa angulata* SEGUENZA, 1873 - 79, *non* EICHWALD, 1830; M]

A. (*Alvaniella*) SACCO, 1895, *ex* MONTEROSATO MS [**Rissoa scabra* PHILIPPI, 1844; OD]

= *Seguenziella* SACCO, 1904, *non* NEVIANI, 1901, *nom. nov. pro Taramellia* SEGUENZA, 1903, *non* CAMPANA, 1903, *nom. nov. pro Flemingia* JEFFREYS, 1884, *non* JOHNSTON, 1832 [**Turbo zetlandica* MONTAGU, 1815; M]

A. (*Arsenia*) MONTEROSATO, 1891 [**Rissoa striatissima* RAYNEVAL, HECKE & PONZI, 1854; M? (? = *Turbo puncturus* MONTAGU, 1803)]

A. (*Thapsiella*) FISCHER, 1885, *nom. nov. pro Thapsia* MONTEROSATO, 1884, *non* ALBERS, 1860 [**Rissoa rudis* PHILIPPI, 1844; M]

A. (*Turbona*) GRAY, 1847, *ex* LEACH MS. [**Turbo reticulatus* J. ADAMS, 1797, *non* SOLANDER, 1766; OD (= *Cingula beanii* HANLEY in THORPE, 1844)]

= *Zacanthusa* GRAY, 1852, *ex* LEACH MS. [**Z. reticulata* (= *Turbo reticulatus* J. ADAMS, 1797); SD herein]

A. (*Willetia*) GORDON, 1939 [**Alvania montereyensis* BARTSCH, 1911; OD]

Haurakia IREDALE, 1915 [**Rissoa hamiltoni* SUTER, 1898; OD]

H. (*Haurakia*)

H. (*Haurakiopsis*) POWELL, 1937 [**H. pellucida* POWELL, 1937; OD]

H. (*Subestea*) COTTON, 1944 [**Alvania seminodosa* MAY, 1915; OD]

Subfamily Rissoinae:

groups of uncertain position and rank

Austronoba POWELL, 1927 [**Rissoa candidissima* WEBSTER, 1905; OD]

Awanuia POWELL, 1927 [**Merelina* (A.) *dilatata* POWELL, 1927; OD]

Discrevinia LASERON, 1956 [**D. balba* LASERON, 1956; OD]

Feldestea IREDALE, 1955 [**Alvania salebrosa* FRAUENFELD, 1867; OD]

Ihungia MARWICK, 1931 [**I. luteophila* MARWICK, 1931; OD]

Larochella POWELL, 1927 [**L. toreuma* POWELL, 1927; OD]

Linemera FINLAY, 1924 [**L. interrupta* FINLAY, 1924, *nom. nov. pro Rissoa gradata* HUTTON, 1885, *non* ORBIGNY in SAGRA, 1842; OD]

Merelina IREDALE, 1915 [**Rissoa cheilostoma* TENISON-WOODS, 1877; OD]

Nodulestea IREDALE, 1955 [**Estea castella* LASERON, 1950; OD]

Notoscrobs POWELL, 1927 [**N. ornatus* POWELL, 1927; OD]

Parashiella LASERON, 1956 [**P. ambulata* LASERON, 1956; OD]

Promerelina POWELL, 1926 [**P. crosseaformis* POWELL, 1926; OD]

Scalaronoba POWELL, 1927 [**S. costata* POWELL, 1927; OD]

S. (*Scalaronoba*)

S. (*Manawatawhia*) POWELL, 1937 [**M. analoga* POWELL, 1937; OD]

Veterator LAWS, 1944 [**Brookesena quadricincta* MARWICK, 1931; OD]

Subfamily *Anabathroninae* COAN, subfam. nov.

Anabathron FRAUENFELD, 1867 [**A. contabulata* FRAUENFELD, 1867; M]

A. (*Anabathron*)

A. (*Lironoba*) IREDALE, 1915 [**Rissoa suteri* HEDLEY, 1904; M]

A. (*Chrystella*) LASERON, 1956 [**C. islandica* LASERON, 1956; OD]

= *Crystella*, *err., auctt.*

Cylonidea LASERON, 1956 [**C. carina* LASERON, 1956; OD]

Nannoteretispira HABE, 1961 [**N. japonica* HABE, 1961; OD]

Nobolira FINLAY, 1926 [**Lironoba polyvineta* FINLAY, 1924; OD]

N. (*Nobolira*)

N. (*Adolphinoba*) POWELL, 1930 [**A. finlayi* POWELL, 1930; OD]

Tropidorissoia TOMLIN & SHACKLEFORD, 1915 [**T. taphrodes* TOMLIN & SHACKLEFORD, 1915; OD]

Subfamily *Cingulinae* COAN, subfam. nov.

Cingula FLEMING, 1828 [**Turbo cingillus* MONTAGU, 1803; SD GRAY, 1847 (? = *T. trifasciatus* J. ADAMS, 1800)]

= *Cingilla* MONTEROSATO, 1884 [**Turbo trifasciatus* J. ADAMS, 1800; SD CROSSE, 1885]

= *Crisilla* COSSMANN, 1921, *ex* MONTEROSATO MS [**Turbo semistriatus* MONTAGU, 1808; OD]

= "*Cingula* MONTEROSATO," *auctt., non* FLEMING, 1828

C. (*Cingula*)

C. (*Botelloides*) STRAND, 1928, *nom. nov. pro Botellus* IREDALE, 1924, *non* MONIEZ, 1887 [**Onoba bassiana* HEDLEY, 1911; OD]

C. (*Chevallieria*) COSSMANN, 1888, [**C. labrosa* COSSMANN, 1888; OD]

- = *Pseudonoba* BOETTGER, 1902 [**P. peculiaris* BOETTGER, 1902; OD]
- C. (Dipsotoma)* LASERON, 1956 [**Rissoa mercurialis* WATSON, 1886; OD]
- C. (Falsicingula)* HABE, 1958 [**Cingula kurilensis* PILSBRY, 1905; OD]
- C. (Hyla)* H. & A. ADAMS, 1852 [**H. vitrea* (= *Turbo vitreus* MONTAGU, 1803); M]
- = *Ceratia* H. & A. ADAMS, 1852 [**Rissoa proxima* FORBES & HANLEY, 1850, ex ALDER MS; M]
- C. (Onoba)* H. & A. ADAMS, 1852, nom. nov. pro *Turbonilla* LEACH, 1847, non RISSO, 1826 [**O. striata* (= *Turbo striatus* J. ADAMS, 1797, non DACOSTA, 1778 = *Turbo semicostatus* MONTAGU, 1803); M]
- C. (Peringiella)* MONTEROSATO, 1878 [**Rissoa laevis* MONTEROSATO, 1877; M]
- C. (Pisinna)* MONTEROSATO, 1878 [**Rissoa punctulum* PHILIPPI, 1836 = *Helix glabrata* MÜHLFELD, 1824; SD COSSMANN, 1921]
- C. (Setia)* H. & A. ADAMS, 1852 (not preocc. by OKEN, 1815 - ICZN Op. 417) [**Rissoa pulcherrima* JEFFREYS, 1848; SD KOBELT, 1878]
- = *Parvisetia* MONTEROSATO, 1884 [**Rissoa scillae* ARADAS & BENOIT, 1870, ex SEGUENZA MS; M]
- = *Obtusella* COSSMANN, 1921 nom. nov. pro *Cingulina* MONTEROSATO, 1884, non A. ADAMS, 1860 [**Rissoa obtusa* CANTRAINE, 1842, (non BROWN, 1841) ? = *R. soluta* PHILIPPI, 1844; M]
- Cingulinae: groups of uncertain position and rank
- Amphithalamus* CARPENTER, 1865 [**A. inclusus* CARPENTER, 1865; M]
- Badepigrus* IREDALE, 1955 [**Rissoa badia* PETTERD, 1884; OD]
- ? *Elachisina* DALL, 1918 [**E. grippi* DALL, 1918; M]
- Epigrus* HEDLEY, 1903 [**Rissoina cylindracea* TENISON-WOODS, 1878; OD (as *Rissoa ischna* TATE, 1899 nom. nov.) (not preocc. by *Rissoa cylindracea* KRYNICKI, 1837)]
- Estea* IREDALE, 1915 [**Rissoa zosterophila* WEBSTER, 1905; OD]
- Eusetia* COTTON, 1944 [**Rissopsis expansa* POWELL, 1930; OD]
- Fairbankia* BLANFORD, 1868 [**E. bombayana* BLANFORD, 1868; M]
- Floridiscrobs* PILSBRY & MCGINTY, 1949 [**Amphithalamus dysbatus* PILSBRY & MCGINTY, 1949; OD]
- Heterocyclus* CROSSE, 1872 [**H. perroquini* CROSSE, 1872; M]
- Lucidestea* LASERON, 1956 [**L. vitrea* LASERON, 1956; OD]
- L. (Lucidestea)*
- L. (Mesodestea)* LASERON, 1956 [**M. resima* LASERON, 1956; OD]
- Nanadoma* LASERON, 1956 [**N. imitatoris* LASERON, 1956; OD]
- Paronoba* LASERON, 1950 [**P. subquadrata* LASERON, 1950; OD]
- Pelycidion* FISCHER in DE FOLIN & PÉRIER [**P. venustum* FISCHER in DE FOLIN & PÉRIER, 1872; M]
- = *Pelecydium*, err., auctt.
- Rissopsis* GARRETT, 1873 [**R. typica* GARRETT, 1873; M]
- Ruapukea* DELL, 1952 [**R. carolus* DELL, 1952; OD]
- Scrobs* WATSON, 1886 [**Rissoa* (S.) *scrobiculator* WATSON, 1886; SD COSSMANN, 1921]
- S. (Scrobs)*
- S. (Anxietas)* IREDALE, 1917 [**A. perplexa* IREDALE, 1917; OD]
- S. (Laseronula)* WHITLEY, 1959, nom. nov. pro *Salatricula* LASERON, 1956, non BURMEISTER, 1861, nom. nov. pro *Saltatrix* LASERON, 1950, non KLUG, 1833 [**Epigrus protractus* HEDLEY, 1904; OD]
- = *Salatricula*, err., auctt.
- S. (Nannoscrobs)* FINLAY, 1927 [**Amphithalamus hedleyi* SUTER, 1908; OD]
- S. (Obescrobs)* IREDALE, 1955 [**Rissoa jacksoni* BRAZIER, 1895; OD]
- S. (Ultiscrobs)* IREDALE, 1955 [**Scrobs pluteus* LASERON, 1950; OD]
- Striatestea* POWELL, 1927 [**S. bountyensis* POWELL, 1927; OD]
- Subonoba* IREDALE, 1915 [**Rissoa fumata* SUTER, 1898; OD]
- Subfamily Stenothyrae FISCHER, 1887
- Stenothyra* BENSON, 1856, nom. nov. pro *Nematura* BENSON, 1836, non FISCHER VON WALDHEIM, 1812 [**N. deltae* BENSON, 1836; OD]
- = *Nematura* err., auctt.
- S. (Stenothyra)*
- S. (Gangetia)* ANCEY, 1890 [**Hydrobia miliacea* NEVILL, 1880; M]
- = *Astenothyra* ANNANDALE & PRASHAD, 1921 [**Hydrobia miliacea* NEVILL, 1880; OD]
- Obesitena* IREDALE, 1943 [**Stenothyra australis* HEDLEY, 1901; OD]
- Family Rissoinidae STOLICZKA, 1868
- nom. transl. COSSMANN, 1919, ex Rissoininae
- Subfamily Rissoininae STOLICZKA, 1868
- Rissoina* ORBIGNY, 1840 [**R. inca* ORBIGNY, 1840; M]
- R. (Rissoina)*
- R. (Apataxia)* LASERON, 1956 [**A. erecta* LASERON, 1956; OD]
- R. (Austrosina)* LASERON, 1956 [**Rissoina pulchella*

1850; OD]

BRAZIER, 1877; OD]

R. (Caporista) IREDALE, 1955 [**Rissoina iredalei* LASERON, 1950; OD]*R. (Condylia) LASERON*, 1956 [**C. collaxis* LASERON, 1956; OD]*R. (Contraxiala) LASERON*, 1956 [**C. obliqua* LASERON, 1956; OD]*R. (Costalynia) LASERON*, 1956 [**Rissoina cardinalis* BRAZIER, 1877; OD]*R. (Eurissoina) WOODRING*, 1928 [**Rissoina (E.) ditomus* WOODRING, 1928; OD]*R. (Folinia) CROSSE*, 1868 [**Rissoa insignis* FOLIN, 1867, non A. ADAMS & REEVE, 1850 (= *R. signae* BARTSCH, 1915); M]*R. (Fractoralla) LASERON*, 1956 [**F. praecida* LASERON, 1956; OD]*R. (Laseronia) COTTON*, 1959 [**Rissoina cretacea* TENISON-WOODS, 1878; OD]*R. (Mirarissoina) WOODRING*, 1928 [**Rissoina (M.) lepida* WOODRING, 1928; OD]*R. (Palisadia) LASERON*, 1956 [**P. subulata* LASERON, 1956; OD]*R. (Pandalosia) LASERON*, 1956 [**P. excelsis* LASERON, 1956; OD]*R. (Peripetella) LASERON*, 1956 [**P. queenslandica* LASERON, 1956; OD]*R. (Plenecone) LASERON*, 1956 [**P. angulata* LASERON, 1956; OD]*R. (Rissoinella) OYAMA*, 1954 [**Rissoina zeltenerioides* YOKOYAMA, 1920; OD]*R. (Rissolina) GOULD*, 1861 [**Rissoina plicatula* GOULD, 1861; SD NEVILL, 1885]*R. (Schwartzella) NEVILL*, 1881 [**Rissoina orientalis* NEVILL, 1881; OD (? = *R. triticea* PEASE, 1862)]
= (?) *Schwartzella* NEVILL, 1885, non NEVILL, 1881
[**Rissoina bryerea* MONTAGU, 1803; OD]*R. (Zebinella) MÖRCH*, 1876 [**Rissoina decussata* (MONTAGU, 1803); SD NEVILL, 1885 (= *Helix decussata* MONTAGU, 1803)]*Dentrissoina LASERON*, 1956 [**D. thornleyana* LASERON, 1956; OD]*Lanzia BRUSINA*, 1906 [**Turbo elephantotus* MÜHLFELDT, 1824; M]*Microstelma A. ADAMS*, 1863 [**M. daedala* A. ADAMS, 1863; M]*Pachyrissoina BOETTGER*, 1893 [**Rissoina walkeri* SMITH, 1893; SD WENZ, 1939]*Parazebinella BOETTGER*, 1893 [**Rissoina (P.) crenilabris* BOETTGER, 1893; M]*Stiva HEDLEY*, 1904 [**S. ferruginea* HEDLEY, 1904; OD]Subfamily **Phosinellinae** COAN, subfam. nov.*Phosinella MÖRCH*, 1876 [**Rissoa pulchra* C. B. ADAMS, 1850; SD NEVILL, 1885]*P. (Phosinella)**P. (Costabieta) LASERON*, 1956 [**C. paucina* LASERON, 1956; OD]*P. (Lucidinella) LASERON*, 1956 [**L. conicera* LASERON, 1956; OD]*P. (Phintorene) IREDALE*, 1955 [**Rissoina allanae* LASERON, 1950; OD]*P. (Plenapexia) LASERON*, 1956 [**P. fractura* LASERON, 1956; OD]*Anteglosia VOKES*, 1948 [**A. essoensis* VOKES, 1948; OD]*Cossmannia NEWTON*, 1891, nom. nov. pro *Diasticus* COSSMANN, 1888, non MULSANT, 1842 [**Rissoina expansa* DESHAYES, 1861; OD]*C. (Cossmannia)**C. (Chiliostigma) MELVILL*, 1918 [**Rissoina (C.) refugium* MELVILL, 1918; M]*C. (Pezantia) COSSMANN*, 1896, [**Rissoa dactyllosa* DESHAYES, 1864; OD]*Emblanda IREDALE* 1955 [**Rissoa emblematica* HEDLEY, 1906; OD]*Herewardia IREDALE*, 1955 [**Rissoina kesteveni* HEDLEY, 1907; OD]*Iravadia BLANFORD*, 1867 [**I. ornata* BLANFORD, 1867; M]*Isseliella WEINKAUFF*, 1881, ex NEVILL MS [**Rissoina (I.) mirabilis* WEINKAUFF, 1881, ex DUNKER MS; OD]*Lapsigyris BERRY*, 1958 [**Alvania contrerasi* JORDAN, 1936; OD]*Pellamora IREDALE*, 1943 [**Iravadia australis* HEDLEY, 1900; OD]*Pyramidelloides NEVILL*, 1885 [**Rissoina miranda* A. ADAMS, 1861; OD]= *Isselia auctt.*, nom. nud., non BOURGUIGNAT, 1877*Zymalata LASERON*, 1956 [**Z. concinna* LASERON, 1956; OD]Subfamily **Zebininae** COAN, subfam. nov.*Zebina H. & A. ADAMS*, 1854 [**Rissoina coronata* MOHRENSTERN, 1860, ex RECLUZ MS; SD NEVILL, 1885]*Z. (Zebina)**Z. (Iopsis) GABB*, 1873 [**I. fusiformis* GABB, 1873 (= *Rissoina browniana* ORBIGNY, 1840); M]= *Cibdezebina* WOODRING, 1928 [**Rissoina browniana* ORBIGNY, 1840; OD]*Crepitacella GUPPY*, 1867 [**Melanopsis cepula* GUPPY, 1866; M]

Dolophanes GABB, 1873 [**D. melanoides* GABB, 1873; M]
Lealla COSSMANN, 1921 [**Pasithea notata* LEA, 1833; OD]
Morchiella NEVILL, 1885 [**Rissoa gigantea* DESHAYES, 1832; OD]
Takirissina OYAMA, 1962 [**Rissoina japonica* WEINKAUFF, 1885; OD]
Tiphycerma BERRY, 1958 [**T. preposterum* BERRY, 1958; OD]

Subfamily Barleeinae THIELE, 1929

Barleeia CLARK, 1855 [**Turbo ruber* J. ADAMS, 1797, non VON SALIS, 1793 (= *T. unifasciatus* MONTAGU, 1803); M]
B. (Barleeia)
B. (Nodulus) MONTEROSATO, 1878 [**Rissoa contorta* JEFFREYS, 1856; M]
B. (Pseudosetia) MONTEROSATO 1884 [**Rissoa turgida* JEFFREYS, 1870; SD CROSSE, 1885]
Amphirissia DAUTZENBERG & FISCHER, 1897 [**A. cyclostomoides* DAUTZENBERG & FISCHER, 1897; M]
A. (Amphirissia)
A. (Assiminopsis) LOCARD, 1897 [**A. abyssorum* LOCARD, 1897; M]
A. (Microdochus) REHDER, 1943 [**M. floridanus* REHDER, 1943; OD]
Antinodulus COSSMANN in COSSMANN & PEYROT, 1919 [**Bulimus globulus* GRATELOUP, 1828; OD]
Boogina THIELE, 1913 nom. nov. pro *Watsonella* THIELE, 1912, non GRABAU, 1900 [**Rissoa sinapi* WATSON, 1886; M]
B. (Boogina)
B. (Nilsia) FINLAY, 1927 [**Fossarus conicus* ODHNER, 1924; OD]
Dardanula IREDALE, 1915, nom. nov. pro *Dardania* HUTTON, 1882, non STAL, 1860 [**D. olivacea* HUTTON, 1882; M]
D. (Dardanula)
D. (Cerostraca) OLIVER, 1915 [**C. iredalei* OLIVER, 1915; OD]
Diala A. ADAMS, 1861 [**D. varia* A. ADAMS, 1861; SD SUTER, 1913]
D. (Diala)
D. (Dialella) IREDALE, 1955 [**Diala translucida* HEDLEY, 1906; OD]
D. (Dialopsis) COSSMANN, 1889 [**Turritella semistriata* DESHAYES, 1832; OD]
D. (Mellitesteia) LASERON, 1956 [**M. simplex* LASERON, 1956; OD]
D. (Rissoalaba) OYAMA, 1954 [**Rissoa plebeja* YOKOYAMA, 1922; OD]
Eatoniella DALL, 1876, nom. nov. pro *Eatonia* SMITH, 1875, non HALL, 1857 [**Rissoa kerguelensis* SMITH,

1875; SD SUTER, 1913]
E. (Eatoniella)
E. (Eatonina) THIELE, 1912 [**E. pusilla* THIELE, 1912; M]
E. (Eatoniopsis) THIELE, 1912 [**Eatoniella paludinooides* SMITH, 1902; M]
E. (Hemistomia) CROSSE, 1872 [**H. caledonica* CROSSE, 1872; M]
E. (Ovirissia) HEDLEY, 1916 [**Rissoa adarensis* SMITH, 1902; OD]
E. (Tatea) TENISON-WOODS, 1879 [**Bythinia huonensis* TENISON-WOODS, 1875; M]
Laevitesta LASERON, 1950 [**L. scobina* LASERON, 1950; OD]
L. (Laevitesta)
L. (Australaba) LASERON, 1956 [**A. bowenensis* LASERON, 1956; OD]
L. (Paradiala) LASERON, 1956 [**P. supraflecta* LASERON, 1956; OD]
Microdryas LASERON, 1950 [**Cingula australiae* FRAUENFELD, 1867; OD]
Microfossa LASERON, 1950 [**Subanaea incidata* FRAUENFELD, 1867; OD (= *Sabanea incidata* FRAUENFELD, 1867)]
Mistostigma BERRY, 1947 [**M. punctulum* BERRY, 1947; OD]
Nevillia H. ADAMS, 1868 [**N. picta* H. ADAMS, 1868; SD NEVILL, 1884]
Notosetia IREDALE, 1915 [**Barleeia neozelanica* SUTER, 1898; OD]
Nozeba IREDALE, 1915 [**Rissoa emarginata* HUTTON, 1885; OD]
Pellax FINLAY, 1927 [**Phasianella huttoni* PILSBRY, 1888; OD]
Plagyostila FISCHER in DE FOLIN & PÉRIER, 1872, pro *Plagiostyla* FISCHER in DE FOLIN & PÉRIER, 1871, nom. nud. [**P. asturiana* FISCHER in DE FOLIN & PÉRIER, 1872; M]
Putilla A. ADAMS, 1867 [**P. lucida* A. ADAMS, 1867; M]
Skenella MARTENS & PFEFFER, 1886 [**S. georgiana* MARTENS & PFEFFER, 1886; M]
Vitricithna LASERON, 1956 [**Cithna marmorata* HEDLEY, 1907; OD]

Rissoinidae: groups of uncertain position and rank

Pseudotaphrus COSSMANN, 1888 [**Bulimus buccinalis* LAMARCK, 1804; OD]
P. (Pseudotaphrus)
P. (Microtaphrus) COSSMANN, 1888 [**Pseudotaphrus (M.) proavius* COSSMANN, 1888; OD]
Stosicia BRUSINA, 1870 [**Rissoa buccinalis* GRATELOUP, 1828, non LAMARCK, 1804, = *R. planaxoides* GRATELOUP, 1838; M]

= *Stossicia*, *Stossichia*, emend., auctt.

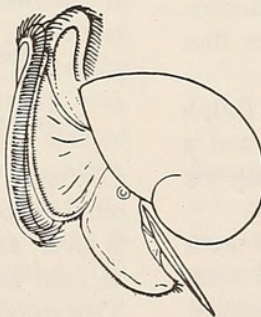
Family Cingulopsidae FRETTER & PATIL, 1958

Cingulopsis FRETTER & PATIL, 1958 [**Cingula fulgida* (J. ADAMS, 1797); OD (= *Helix fulgidus* J. ADAMS, 1797)]

?*Coriandria* TOMLIN, 1917 nom. nov. pro *Microsetia* MONTEROSATO, 1884, non STEPHENS, 1829 [**Rissoa cossurae* CALCARA, 1841; SD CROSSE, 1885]

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