

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Papers in Entomology

Museum, University of Nebraska State

November 2006

A REVIEW OF THE FAMILY-GROUP NAMES FOR THE SUPERFAMILY SCARABAEOIDEA (COLEOPTERA) WITH CORRECTIONS TO NOMENCLATURE AND A CURRENT CLASSIFICATION

Andrew B. T. Smith

University of Nebraska - Lincoln, asmith@unl.edu

Follow this and additional works at: <https://digitalcommons.unl.edu/entomologypapers>



Part of the [Entomology Commons](#)

Smith, Andrew B. T., "A REVIEW OF THE FAMILY-GROUP NAMES FOR THE SUPERFAMILY SCARABAEOIDEA (COLEOPTERA) WITH CORRECTIONS TO NOMENCLATURE AND A CURRENT CLASSIFICATION" (2006). *Papers in Entomology*. 122.

<https://digitalcommons.unl.edu/entomologypapers/122>

This Article is brought to you for free and open access by the Museum, University of Nebraska State at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Papers in Entomology by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

**A REVIEW OF THE FAMILY-GROUP NAMES FOR THE SUPERFAMILY
SCARABAEOIDEA (COLEOPTERA) WITH CORRECTIONS TO NOMENCLATURE AND
A CURRENT CLASSIFICATION**

ANDREW B. T. SMITH
Canadian Museum of Nature, P.O. Box 3443, Station D
Ottawa, ON K1P 6P4, CANADA
asmith@mus-nature.ca

Abstract

For the first time, all family-group names in the superfamily Scarabaeoidea (Coleoptera) are evaluated using the International Code of Zoological Nomenclature to determine their availability and validity. A total of 383 family-group names were found to be available, and all are reviewed to scrutinize the correct spelling, author, date, nomenclatural availability and validity, and current classification status. Numerous corrections are given to various errors that are commonly perpetuated in the literature. A reversal of precedence is used to preserve the prevailing usage of the following family-group names: Eupariini Schmidt, 1910 (over Ataeniini Harold, 1868); Pachydemini Burmeister, 1855 (over Elaphocerini Blanchard, 1851); Heterosternina Bates, 1888 (over Macropnina Horn, 1866); and Anomalina Streubel, 1839 (over Euchlorina Hope, 1839).

Houston, we've had a problem here
—Apollo 13 Astronaut Jack Swigert
13 April 1970

Trust No One
—X-Files mantra

Recently, there has been an effort to investigate and modernize the family-group names for many taxa. Within Coleoptera, family-group names have been evaluated and listed for Geodephaga (Madge 1989), Staphyliniformia (Newton and Thayer 1992), Cucujoidea (Pakaluk *et al.* 1994), Tenebrionidae (Bouchard *et al.* 2005), and Curculionioidea (Alonso-Zarazaga and Lyal 1999). Lawrence and Newton (1995) also summarized all of the family and subfamilies of Coleoptera recognized in their classification. Until now, there has never been a serious effort to evaluate all the Scarabaeoidea family-group names using the International Code of Zoological Nomenclature (hereafter called the ICZN) (International Commission on Zoological Nomenclature 1999). Consequently, the state of affairs has been a disastrous mess! In this paper, all family-group names in the superfamily Scarabaeoidea that are available under the ICZN are listed with their current status (valid or invalid), original spelling, and type genus. Unavailable family-group names (*nomina nuda*, etc.) are not extensively reviewed in this paper, but some of the notable and/or better-known examples are briefly discussed.

Usage of family-group names in Scarabaeoidea follows the conventions of most other Coleoptera with taxa recognized at the levels of superfamily, family, subfamily, tribe, and subtribe. A total of 383 family-group names have been established for Scarabaeoidea in a code-compliant manner. In this paper, 12 families, 43 subfamilies, 118 tribes, and 94 subtribes are recognized as valid.

The purpose of this paper is to review the nomenclatural status and classification of all Scarabaeoidea family-group names. All names found were evaluated using the ICZN to determine if they were available for use. The ICZN was also used to determine the correct spelling, author, and date of all names. Then the current literature was consulted to determine and extrapolate what names were valid, what rank they should be classified at, and synonymy with other taxa. All of this information is summarized in the catalog below.

During the course of my research on Scarabaeoidea family-group names it was obvious that many family-group name nomenclatural acts lay hidden in old and sometimes obscure publications. I fully expect that a few additions and corrections will need to be made as more of these nomenclatural acts are rediscovered.

Family-Group Names and the ICZN

There is a specific set of rules in place for the validation of family-group names under the ICZN. For new names (published from 2000 to the present), the basic criteria for publication and derivation of the name must be met. Family-group names must be based on a valid genus within that family-group taxon, they must be explicitly indicated as intentionally new, and the type genus must be explicitly stated. The name must be formed using a stem based on the type genus (for example Lucan- for *Lucanus*) and a suffix for the appropriate family-group rank (-oidea for a superfamily, -idae for a family, -inae for a subfamily, -ini for a tribe, and -ina for a subtribe). Generally, the stem of a family-group name is formed by deleting the case ending of the appropriate genitive singular of a Greek, Latin, or Latinized genus-group name (for example: Scarabae- for *Scarabaeus*, Belohin- for *Belohina*, Aegiali- for *Aegialia*, etc.). However, this is not always straightforward (for example: Trog- for *Trox*, Heteronych- for *Heteronyx*, Osmodermat- for *Osmoderma*, etc.). Article 29 of the ICZN and Greek and Latin dictionaries should be carefully consulted before publishing new family-group names. Note that the stem of a family-group name must always be emended if the spelling of the type genus is altered or found to be incorrect.

When evaluating names that were published in the past, different rules apply for different periods of time. Some of the most relevant examples follow below. The dates below are explicitly cited in the current edition of the rules of nomenclature (ICZN 1999). Only the current edition of the rules of nomenclature should be used to evaluate names because this version overrides all previous versions.

1758–1900: Family-group names first published during this period in vernacular (non-Latinized) form (for example: Bolbocéraires, Pachypoden, Chasmatoptérides, etc.) are permitted only when they were subsequently Latinized and generally accepted as valid dating from the first publication in non-Latinized form. Latinized family-group names are available simply from their use during this period. No descriptions, definitions, or indications are necessary other than the requirement that the stem of the family-group name must be based on an available generic name.

1901–1930: Family-group names must be Latinized to be available during this period or any time later. Otherwise, a family-group name is available “by indication” simply by using an available generic name to form the stem. No description is necessary.

1931–1960: Family-group names must be accompanied by a description or definition (or bibliographic reference to such a published statement) that states characters that differentiate the taxon (unless the name is a replacement name). An exception to the preceding exists if a subsequent author validated the name from 1961–1999 using Article 13.

The family-group name must also be based on a genus-group name that was considered to be valid and within that family-group taxon when it was first proposed.

1961–1999: Similar to 1931–1960 but without the Article 13 exception mentioned above.

There are many other rules regulating family-group names, and the ICZN (1999) should be consulted to determine the availability and validity of names previously published. Note that for family-group names published from 1758–1999, the stem can be emended if it was formed incorrectly (unless the incorrect version is in prevailing usage; see Article 29.5). For names published in 2000 or later, the stem should not be altered even if it was not formed correctly (Article 29.4).

The Principle of Priority (Article 23.1) generally applies to family-group names, but the rules are more flexible relative to generic and specific names. When it is discovered that a younger name is placed at a higher rank than an older name within that taxon, the older name should not replace the younger name if the younger name is in prevailing usage (Article 35.5) (for example: Melolonthidae Leach, 1819 containing Cetoniinae Leach, 1815 of some authors). The Principle of Homonymy applies to family-group names as with other names. If the stem of a family-group name is identical to the stem of another family-group name, the younger name is permanently invalid and must be replaced. Additionally, if the type genus of a family-group name is a junior homonym, the family-group name is permanently invalid and must be replaced.

Authorship of family-group names has been a source of confusion for some authors. According to the Principle of Coordination (Article 36), the author and date of a family-group name remains the same—even when the suffix must be changed when the taxon is raised or lowered in rank. For example, Geotrupidae Latreille, 1802; Geotrupinae Latreille, 1802; and Geotrupini Latreille, 1802 all simultaneously have the same author and date, regardless of what author first placed this family-group name at the family, subfamily, or tribal rank.

Explanation of the Catalog Format

The entries below are organized phylogenetically based largely on the current, prevailing classifications of the various groups. For many taxa, there have been recent overviews of the classification that were followed. Many other groups, however, have been sadly neglected when it comes to worldwide overviews of the classification (most notably Melolonthinae). For many of the more poorly known groups, it was necessary to use a patchwork of literature to try and piece together an overall classification. This was often complicated by the fact that authors working on the same groups do not always use the same classification scheme for their group, especially when determining the rank to use for a taxon. Although I had to make some of my own decisions about what classification scheme to use and what rank at which to place certain taxa, I think that the catalog below is a good reflection of the current literature. There are obvious problems with some groups, but these are beyond the scope of this paper. It is my hope that this review of scarab family-group names will be a catalyst for others to critically review and research higher-level scarab classification. The following works were used as a basis for the classification and phylogenetic order of some of the major groups of Scarabaeoidea: Scarabaeoidea—Browne and Scholtz 1995, Lawrence and Newton 1995; Passalidae—Boucher 2005; Ochodaeidae—Scholtz *et al.* 1988; Hybosoridae—Ocampo 2006; Scarabaeidae—Browne and Scholtz 1995, Ratcliffe *et al.* 2002; Aphodiinae—Dellacasa 1988; Scarabaeinae—Cambefort 1991; Melo-

Ionthinae–Britton 1957, Evans 2003; Rutelinae–Machatschke 1972, Jameson 1998; Dynastinae–Endrödi 1985; and Cetoniinae–Krikken 1984, Ratcliffe *et al.* 2002. Although the works above were used as a starting point, there are obvious problems and omissions in many of them, and several modifications were necessary based on more recently published papers. The classification of the families Geotrupidae and Lucanidae is more problematic. Because of the numerous and widely differing opinions about relationships within each of these groups, it was impossible to pick a single reference as the authority on either group. Therefore, I decided to take a somewhat conservative approach for each with some consideration given to molecular phylogenetics results (Smith *et al.* 2006). The Geotrupidae (including Bolboceratinae) were divided into three subfamilies with Bolboceratinae and Geotrupinae each further divided into several tribes loosely based on works such as Zunino (1984) and Nikolajev (2003). It is clear that more phylogenetics research must be done on this group before a strongly supported classification scheme can emerge for this group. Similarly, the family Lucanidae is in a state of taxonomic chaos at the higher levels. I based the classification loosely on Holloway (1968, 1997) and Howden and Lawrence (1974). The tribal classification within the subfamily Lucaninae was so haphazard that I decided to not recognize any of them in this work, even though there is undoubtedly merit in recognizing some of the groups as tribes (for example Platycerini, Chiasognathini, and Figulini). Since my expertise on this group is limited, I will leave it to future lucanid workers to develop a reasonable tribal classification scheme within the subfamily Lucaninae. Some of the phylogenetic order and classification decisions in this paper were based on a large-scale molecular phylogenetics project currently underway on Scarabaeoidea (introduced in Smith *et al.* 2006). Molecular data were only used in cases where there is no prevailing phylogenetic ordering or classification scheme used for a particular group. It should be noted that *many* more changes to higher-level scarab classification *will* be necessary once detailed reports on the findings of the molecular data are published. Until these detailed papers are published, I will refrain from making changes based solely on these findings.

Entries in the catalog are ordered by rank within a taxon, and there are multiple entries for family-group names with simultaneous ranks (for example: Scarabaeoidea: Scarabaeidae: Scarabaeinae: Scarabaeini). In cases where there are multiple entries, “Remarks” are most often given with highest ranked entry and synonyms are given only with the lowest ranked entry. Entries include the valid name for the taxon in bold followed by the original spelling and citation of the family-group name, the type genus, and when needed, remarks on the nomenclature or classification of the family-group or genus-group names dealt with in the entry. Any synonyms that exist for a taxon are also listed in separate entries after the entry for the valid name. Synonymy entries include the information mentioned above in addition to the correct stem and suffix for the taxonomic rank under which it is placed. An asterisk (*) indicates bibliographic references that I have not examined personally. The “†” symbol indicates extinct fossil taxa.

Superfamily SCARABAEOIDEA Latreille, 1802

Original spelling and citation: Scarabæides Latreille 1802: 144

Type genus: *Scarabaeus* Linnaeus, 1758: 345

Remark: Scaraboides (von Laicharting 1781: II) was used prior to Latreille (1802) but does not fulfill the ICZN criteria for availability because it was used at the order rank not the family-group level. Scaraboides *sensu* von Laicharting was used as the name for all

beetles (=order Coleoptera). This name has not been adapted at the order level and is unavailable at the family-group level (Article 1.2.2).

Family PLECOMIDAE LeConte, 1861

Original spelling and citation: Pleocomini LeConte 1861: 128

Type genus: *Pleocoma* LeConte, 1856: 24 (LeConte 1856*b*)

Subfamily PLECOMINAE LeConte, 1861

Original spelling and citation: Pleocomini LeConte 1861: 128

Type genus: *Pleocoma* LeConte, 1856: 24 (LeConte 1856*b*)

†Subfamily CRETOCOMINAE Nikolajev, 2002

Original spelling and citation: Cretocomini Nikolajev 2002*a*: 53

Type genus: *Cretocoma* Nikolajev, 2002: 54 (Nikolajev 2002*a*)

Family GEOTRUPIDAE Latreille, 1802

Original spelling and citation: Geotrupini Latreille 1802: 142

Type genus: *Geotrupes* Latreille, 1797: 6

Subfamily TAUROCERASTINAE Germain, 1897

Original spelling and citation: Taurocerastidae Germain 1897: 287

Type genus: *Taurocerastes* Philippi, 1866: 115

Subfamily BOLBOCERATINAE Mulsant, 1842

Original spelling and citation: Bolbocéraires Mulsant 1842: 347

Type genus: *Bolboceras* Kirby, 1819: 459 (Kirby 1819*b*)

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Tribe BOLBOCERATINI Mulsant, 1842

Original spelling and citation: Bolbocéraires Mulsant 1842: 347

Type genus: *Bolboceras* Kirby, 1819: 459 (Kirby 1819*b*)

Tribe ATHYREINI Howden and Martínez, 1963

Original spelling and citation: Athyreini Howden and Martínez 1963: 346

Type genus: *Athyreus* MacLeay, 1819: 123

Remark: Athyréites Blanchard 1845: 221 was not Latinized and was not subsequently Latinized until the tribe was formally described by Howden and Martínez (1963). Since Blanchard, 1845 has never been considered the author and date for this taxon, Article 11.7.2 does not apply and this family-group name should continue to be credited to Howden and Martínez, 1963. From the context of Blanchard (1845), all his “Famille” and “Groupe” names with the “-ides” and “-ites” suffixes respectively are French vernacular names (some have accents).

Tribe BOLBOCHROMINI Nikolajev, 1970

Original spelling and citation: Bolbochromini Nikolajev 1970: 34

Type genus: *Bolbochromus* Boucomont, 1909: 117

Tribe GILLETININI Nikolajev, 1990

Original spelling and citation: Gilletinini Nikolajev 1990: 99

Type genus: *Gilletinus* Boucomont, 1932: 264

Tribe EUBOLBITINI Nikolajev, 1970

Original spelling and citation: Eubolbitini Nikolajev 1970: 33

Type genus: *Eubolbitus* Reitter, 1892: 125

Tribe BOLBELASMINI Nikolajev, 1996

Original spelling and citation: Bolbelasmini Nikolajev 1996: 96

Type genus: *Bolbelasmus* Boucomont, 1911: 335

Tribe AUSTRALOBOLBINI Nikolajev, 1996

Original spelling and citation: Australobolbini Nikolajev 1996: 96

Type genus: *Australobolbus* Howden and Cooper, 1977: 19

Tribe EUCANTHINI Nikolajev, 2002

Original spelling and citation: Eucanthini Nikolajev 2002: 209 (Nikolajev 2002*b*)

Type genus: *Eucanthus* Westwood, 1848: 387 (Westwood 1848*b*)

Tribe STENASPIDIINI Nikolajev, 2003

Original spelling and citation: Stenaspidiini Nikolajev 2003: 190

Type genus: *Stenaspidius* Westwood, 1848: 366 (Westwood 1848*a*)

Subfamily GEOTRUPINAE Latreille, 1802

Original spelling and citation: Geotrupini Latreille 1802: 142

Type genus: *Geotrupes* Latreille, 1797: 6

Tribe GEOTRUPINI Latreille, 1802

Original spelling and citation: Geotrupini Latreille 1802: 142

Type genus: *Geotrupes* Latreille, 1797: 6

†Tribe CRETOTRUPINI Nikolajev, 1996

Original spelling and citation: Cretogeotrupini Nikolajev 1996: 97

Type genus: *Cretogeotrupes* Nikolajev, 1992: 80

Tribe LETHRINI Mulsant and Rey, 1871

Original spelling and citation: Lethraires Mulsant and Rey 1871: 161

Type genus: *Lethrus* Scopoli, 1777: 439

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Tribe CHROMOGEOTRUPINI Zunino, 1984

Original spelling and citation: Chromogeotrupini Zunino 1984: 30

Type genus: *Chromogeotrupes* Bovo and Zunino, 1983: 404

Tribe CERATOTRUPINI Zunino, 1984

Original spelling and citation: Ceratotrupini Zunino 1984: 89

Type genus: *Ceratotrupes* Jekel, 1866: 540

Family BELOHINIDAE Paulian, 1959

Original spelling and citation: Belohininae Paulian 1959: 40

Type genus: *Belohina* Paulian, 1959: 42

Family PASSALIDAE Leach, 1815

Original spelling and citation: Passalida Leach 1815*a*: 100

Type genus: *Passalus* Fabricius, 1792: XI

Subfamily AULACOCYCLINAE Kaup, 1868

Original spelling and citation: Aulacocyclinae Kaup 1868*a*: 4

Type genus: *Aulacocyclus* Kaup, 1868: 4 (Kaup 1868*a*)

Tribe AULACOCYCLINI Kaup, 1868

Original spelling and citation: Aulacocyclinae Kaup 1868*a*: 4

Type genus: *Aulacocyclus* Kaup, 1868: 4 (Kaup 1868*a*)

Tribe CERACUPINI Boucher, 2005

Original spelling and citation: Ceracupini Boucher 2005: 319

Type genus: *Ceracupes* Kaup, 1871: 16

Subfamily PASSALINAE Leach, 1815

Original spelling and citation: Passalida Leach 1815*a*: 100

Type genus: *Passalus* Fabricius, 1792: XI

Tribe PROCLINI Kaup, 1868

Original spelling and citation: Proculinae Kaup 1868*b*: 8
 Type genus: *Proculus* Kaup, 1868: 8 (Kaup 1868*b*)

Synonym: Pseudacanthini Kaup, 1871
 Original spelling and citation: Pseudacanthae Kaup 1871: 73
 Type genus: *Pseudacanthus* Kaup, 1869: 9

Synonym: Oileini Kuwert, 1891
 Original spelling and citation: Oileinae Kuwert 1891: 192
 Type genus: *Oileus* Kaup, 1869: 3

Synonym: Sertoriini Kuwert, 1891
 Original spelling and citation: Sertorinae Kuwert 1891: 175
 Type genus: *Sertorius* Kaup, 1871: 114

Remark: This family-group name is permanently invalid because the type genus, *Sertorius* Kaup, 1871, is a junior homonym of *Sertorius* Stål, 1866 (Hemiptera) (Article 39). *Arrox* Zang, 1905 was proposed as a replacement name for *Sertorius* Kaup, 1871.

Synonym: Unduliferini Kuwert, 1891
 Original spelling and citation: Unduliferinae Kuwert 1891: 176
 Type genus: *Undulifer* Kaup, 1869: 6

Synonym: Veturiini Kuwert, 1891
 Original spelling and citation: Veturinae Kuwert 1891: 173
 Type genus: *Veturius* Kaup, 1871: 110

Synonym: Popiliini Kuwert, 1896
 Original spelling and citation: Popiliinae Kuwert 1896: 221
 Type genus: *Popilius* Kaup, 1871: 75

Synonym: Proculejini Kuwert, 1896
 Original spelling and citation: Proculejinae Kuwert 1896: 221
 Type genus: *Proculejus* Kaup, 1868: 13 (Kaup 1868*b*)

Synonym: Spuriinae Kuwert, 1896
 Original spelling and citation: Spuriinae Kuwert 1896: 221
 Type genus: *Spurius* Kaup, 1871: 75

Synonym: Vindicini Kuwert, 1896
 Original spelling and citation: Vindicinae Kuwert 1896: 227
 Type genus: *Vindex* Kaup, 1871: 78

Tribe PASSALINI Leach, 1815

Original spelling and citation: Passalida Leach 1815*a*: 100
 Type genus: *Passalus* Fabricius, 1792: XI

Synonym: Neleini Kaup, 1869
 Original spelling and citation: Neleinae Kaup 1869: 28
 Type genus: *Neleus* Kaup, 1869: 30

Remark: This family-group name is permanently invalid because the type genus, *Neleus* Kaup, 1869, is a junior homonym of *Neleus* Desbonne and Schramm, 1867 (Crustacea) (Article 39).

Synonym: Pertinacini Kaup, 1871
 Original spelling and citation: Pertinaceae Kaup 1871: 89
 Type genus: *Pertinax* Kaup, 1869: 21

Synonym: Phoroneini Kaup, 1871
 Original spelling and citation: Phoroneae Kaup 1871: 97
 Type genus: *Phoroneus* Kaup, 1869: 10

Remark: This family-group name is permanently invalid because the type genus, *Phoroneus* Kaup, 1869, is a junior homonym of *Phoroneus* Stål, 1865 (Hemiptera) (Article 39). *Macrolobus* Zang, 1905 was proposed as a replacement name for *Phoroneus* Kaup, 1869.

Synonym: Mitrorhini Kuwert, 1891

Original spelling and citation: Mitrorrhinae Kuwert 1891: 190

Type genus: *Mitrorhinus* Kaup, 1871: 79

Synonym: Paxillini Kuwert, 1891

Original spelling and citation: Paxillinae Kuwert 1891: 182

Type genus: *Paxillus* MacLeay, 1819: 105

Synonym: Petrejini Kuwert, 1891

Original spelling and citation: Petrejinae Kuwert 1891: 176

Type genus: *Petrejus* Kaup, 1869: 36

Synonym: Neleidini Kuwert, 1896

Original spelling and citation: Nelidinae Kuwert 1896: 222

Type genus: *Neleides* Kaup, 1869: 33

Synonym: Ptichopodini Kuwert, 1896

Original spelling and citation: Ptichopinae Kuwert 1896: 224

Type genus: *Ptichopus* Kaup, 1869: 27

Synonym: Rhodocanthopini Kuwert, 1896

Original spelling and citation: Rhodacanthopinae Kuwert 1896: 222

Type genus: *Rhodocanthopus* Kaup, 1871: 90

Synonym: Vatiniini Kuwert, 1896

Original spelling and citation: Vatiniinae Kuwert 1896: 226

Type genus: *Vatinius* Kaup, 1869: 35

Remark: This family-group name is permanently invalid because the type genus, *Vatinius* Kaup, 1869, is a junior homonym of *Vatinius* Stål, 1865 (Hemiptera) (Article 39). *Zosterothrix* Zang, 1905 was proposed as a replacement name for *Vatinius* Kaup, 1869.

Tribe SOLENOCYCLINI Kaup, 1871

Original spelling and citation: Solenocycleae Kaup 1871: 24

Type genus: *Solenocyclus* Kaup, 1868: 10 (Kaup 1868a)

Synonym: Eriocnemini Kaup, 1871

Original spelling and citation: Eriocnemiae Kaup 1871: 35

Type genus: *Eriocnemis* Kaup, 1868: 21 (Kaup 1868a)

Remark: This family-group name is permanently invalid because the type genus, *Eriocnemis* Kaup, 1868, is a junior homonym of *Eriocnemis* Reichenbach, 1849 (Aves) (Article 39). *Gnaphalocnemis* Heller, 1900 was proposed as a replacement name for *Eriocnemis* Kaup, 1868.

Synonym: Stephanocephalini Kaup, 1871: 78

Original spelling and citation: Stephanocephaleae Kaup 1871: 78

Type genus: *Stephanocephalus* Kaup, 1868: 19 (Kaup 1868b)

Synonym: Ciceroniini Kuwert, 1891

Original spelling and citation: Ciceroninae Kuwert 1891: 183

Type genus: *Ciceronius* Kaup, 1871: 29

Synonym: Erionomini Kuwert, 1891

Original spelling and citation: Erionominae Kuwert 1891: 176

Type genus: *Erionomus* Kaup, 1868: 16 (Kaup 1868a)

Synonym: Flaminiini Kuwert, 1891

Original spelling and citation: Flamininae Kuwert 1891: 185

Type genus: *Flaminius* Kuwert, 1891: 185

Synonym: Semicyclini Kuwert, 1891

Original spelling and citation: Semicyclinae Kuwert 1891: 177

Type genus: *Semicyclus* Kaup, 1871: 28

Synonym: Gnaphalocnemini Gravely, 1914

Original spelling and citation: Gnaphalocneminae Gravely 1914: 194

Type genus: *Gnaphalocnemis* Heller, 1900: 10

Tribe LEPTAULACINI Kaup, 1871

Original spelling and citation: Leptaulaceae Kaup 1871: 28

Type genus: *Leptaulax* Kaup, 1868: 11 (Kaup 1868a)

Tribe MACROLININI Kaup, 1871

Original spelling and citation: Macrolinae Kaup 1871: 42

Type genus: *Macrolinus* Kaup, 1868: 18 (Kaup 1868a)

Synonym: Aceraiini Kaup, 1871

Original spelling and citation: Aceraiiae Kaup 1871: 47

Type genus: *Aceraius* Kaup, 1868: 26 (Kaup 1868a)

Synonym: Gonatini Kuwert, 1891

Original spelling and citation: Gonatinae Kuwert 1891: 169

Type genus: *Gonatas* Kaup, 1871: 50

Synonym: Mastachilini Kuwert, 1891

Original spelling and citation: Mastachilinae Kuwert 1891: 167

Type genus: *Mastachilus* Kaup, 1868: 19 (Kaup 1868a)

Synonym: Pharochilini Kuwert, 1891

Original spelling and citation: Pharochilinae Kuwert 1891: 166

Type genus: *Pharochilus* Kaup, 1868: 20 (Kaup 1868a)

Synonym: Tarquiniini Kuwert, 1891

Original spelling and citation: Tarquininae Kuwert 1891: 164

Type genus: *Tarquinius* Kuwert, 1891: 164

Synonym: Vellejini Kuwert, 1891

Original spelling and citation: Vellejinae Kuwert 1891: 167

Type genus: *Vellejus* Kaup, 1871: 35

Remark: This family-group name is permanently invalid because the type genus, *Vellejus* Kaup, 1871, is a junior homonym of *Vellejus* Mannerheim, 1830 (Coleoptera: Staphylinidae) and *Vellejus* Stål, 1865 (Hemiptera) (Article 39). *Kaupiolus* Zang, 1903 was proposed as a replacement name for *Vellejus* Kaup, 1871.

Synonym: Aureliini Kuwert, 1896

Original spelling and citation: Aureliinae Kuwert 1896: 230

Type genus: *Aurelius* Kuwert, 1891: 168

Synonym: Lachini Kuwert, 1896

Original spelling and citation: Lachinae Kuwert 1896: 230

Type genus: *Laches* Kaup, 1871: 48

Remark: This family-group name is permanently invalid because the type genus, *Laches* Kaup, 1871, is a junior homonym of *Laches* Gistel, 1848 (Hymenoptera) and *Laches* Thorell, 1869 (Arachnida) (Article 39). *Chilomazus* Zang, 1905 was proposed as a replacement name for *Laches* Kaup, 1871.

Synonym: Pelopini Kuwert, 1896

Original spelling and citation: Pelopinae Kuwert 1896: 229

Type genus: *Pelopides* Kuwert, 1896: 229

Synonym: Pleurariini Kuwert, 1896
 Original spelling and citation: Pleurariinae Kuwert 1896: 224
 Type genus: *Pleurarius* Kaup, 1868: 1 (Kaup 1868*b*)

Synonym: Austropassalini Mjöberg, 1917
 Original spelling and citation: Austropassalinae Mjöberg 1917: 11
 Type genus: *Austropassalus* Mjöberg, 1917: 11

Family TROGIDAE MacLeay, 1819

Original spelling and citation: Trogidae MacLeay 1819: 59
 Type genus: *Trox* Fabricius, 1775: 31

Subfamily TROGINAE MacLeay, 1819

Original spelling and citation: Trogidae MacLeay 1819: 59
 Type genus: *Trox* Fabricius, 1775: 31

Subfamily OMORGINAE Nikolajev, 2005

Original spelling and citation: Omorgini Nikolajev 2005*a*: 322
 Type genus: *Omorgus* Erichson, 1847: 107 (Erichson 1847*a*)

Family GLARESIDAE Kolbe, 1905

Original spelling and citation: Glaresini Kolbe 1905: 543
 Type genus: *Glaresis* Erichson, 1848: 925

Family DIPHYLLOSTOMATIDAE Holloway, 1972

Original spelling and citation: Diphyllostomatidae Holloway 1972: 38
 Type genus: *Diphyllostoma* Fall, 1901: 324

Family LUCANIDAE Latreille, 1804

Original spelling and citation: Lucanides Latreille 1804: 234
 Type genus: *Lucanus* Scopoli, 1763: 1

Subfamily AESALINAE MacLeay, 1819

Original spelling and citation: Aesalidae MacLeay 1819: 102
 Type genus: *Aesalus* Fabricius, 1801: 254

Tribe AESALINI MacLeay, 1819

Original spelling and citation: Aesalidae MacLeay 1819: 102
 Type genus: *Aesalus* Fabricius, 1801: 254

Tribe CERATOGNATHINI Sharp, 1899

Original spelling and citation: Ceratognathini Sharp 1899: 194
 Type genus: *Ceratognathus* Westwood, 1838: 260

Tribe NICAGINI LeConte, 1861

Original spelling and citation: Nicagini LeConte 1861: 130
 Type genus: *Nicagus* LeConte, 1861: 130

Subfamily SYNDESINAE MacLeay, 1819

Original spelling and citation: Syndesidae MacLeay 1819: 103
 Type genus: *Syndesus* MacLeay, 1819: 104

Synonym: Sinodendrinae Mulsant, 1842

Original spelling and citation: Sinodendriens Mulsant 1842: 600
 Type genus: *Sinodendron* Hellwig, 1792: 391

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Synonym: Ceruchinae Jacquelin du Val and Fairmaire, 1859

Original spelling and citation: Ceruchites Jacquelin du Val and Fairmaire 1859: 4
 Type genus: *Ceruchus* MacLeay, 1819: 115

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2. From the context of Jacquelin du Val and Fairmaire (1859), all their “Groupe” names are French vernacular names (some have accents) even though they have the “-ites” suffix.

Subfamily LAMPRIMINAE MacLeay, 1819

Original spelling and citation: Lamprimidae MacLeay 1819: 97

Type genus: *Lamprima* Latreille, 1804: 238

Tribe LAMPRIMINI MacLeay, 1819

Original spelling and citation: Lamprimidae MacLeay 1819: 97

Type genus: *Lamprima* Latreille, 1804: 238

Tribe STREPTOCERINI Kikuta, 1986

Original spelling and citation: Streptocerini Kikuta 1986: 131

Type genus: *Streptocerus* Fairmaire, 1850: 53

Subfamily LUCANINAE Latreille, 1804

Original spelling and citation: Lucanides Latreille 1804: 234

Type genus: *Lucanus* Scopoli, 1763: 1

Remark: Several family-group names have been used for taxa within this subfamily that were never made available under the ICZN. These names were first used after 1930 but do not satisfy Article 13.1 (accompanied by a description or definition etc.): Aegini (Maes 1992*b*), Allotopini (Maes 1992*a*), Casignetini (Maes 1992*b*), Chalcodinae (Didier and Séguy 1953, Lacroix 1979), Colophonini (Maes 1992*b*), Cyclommatini (Maes 1992*a*), Homoderini (Maes 1992*b*), Neoprosopocoilini (Maes 1992*b*) (which is also not based on an available generic name), Nigidiini (Benesh 1960), Prosopocoilini (Benesh 1960), Pseudodorcini (Benesh 1960), and Rhyssonotini (Benesh 1960).

Synonym: Platycerinae Mulsant, 1842

Original spelling and citation: Platycérraires Mulsant 1842: 593

Type genus: *Platycerus* Geoffroy, 1762: 87

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Synonym: Chiasognathinae Burmeister, 1847

Original spelling and citation: Chiasognathidae Burmeister 1847: 334

Type genus: *Chiasognathus* Stephens, 1831: 213

Synonym: Figulinae Burmeister, 1847

Original spelling and citation: Figulidae Burmeister 1847: 428

Type genus: *Figulus* MacLeay, 1819: 109

Synonym: Dorcinae Parry, 1864

Original spelling and citation: Dorcidae Parry 1864: 86

Type genus: *Dorcus* MacLeay, 1819: 111

Synonym: Cladognathinae Parry, 1870

Original spelling and citation: Cladognathidae Parry 1870: 75

Type genus: *Cladognathus* Burmeister, 1847: 364

Synonym: Odontolabinae Parry, 1870

Original spelling and citation: Odontolabidae Parry 1870: 106

Type genus: *Odontolabis* Hope, 1842: 247 (Hope 1842*a*)

Synonym: Rhaetulinae Miwa, 1931

Original spelling and citation: Rhaetulinae Miwa 1931: 323

Type genus: *Rhaetulus* Parry, 1871: 353 (Westwood 1871)

Synonym: Systemocerinae Portevin, 1931

Original spelling and citation: Systemocerini Portevin 1931: 3

Type genus: *Systemocerus* Weise, 1883: 93 (Heyden *et al.* 1883)

Synonym: Penichrolucaninae Arrow, 1950

Original spelling and citation: Penichrolucaninae Arrow 1950: 233

Type genus: *Penichrolucanus* Deyrolle, 1863: 485

Synonym: Dendeziinae Benesh, 1955

Original spelling and citation: Dendeziini Benesh 1955*b*: 72

Type genus: *Dendezia* Basilewsky, 1952: 36

Synonym: Lissotinae Benesh, 1955

Original spelling and citation: Lissotini Benesh 1955*b*: 73

Type genus: *Lissotes* Westwood, 1855: 213

Synonym: Sclerostominae Benesh, 1955

Original spelling and citation: Sclerostomini Benesh 1955*a*: 97

Type genus: *Sclerostomus* Burmeister, 1847: 423

Synonym: Scortizinae Benesh, 1955

Original spelling and citation: Scortizini Benesh 1955*a*: 103

Type genus: *Scortizus* Westwood, 1834: 119

Synonym: Pholidotinae Kikuta, 1986

Original spelling and citation: Pholidotini Kikuta 1986: 131

Type genus: *Pholidotus* MacLeay, 1819: 97

Remark: This family-group name is permanently invalid because the type genus, *Pholidotus* MacLeay, 1819, is a junior homonym of *Pholidotus* Brisson, 1762 (Mammalia) (Article 39). *Pholidotus* Hope, 1843 was proposed as a replacement name for *Pholidotus* MacLeay, 1819.

Synonym: Brasilucaninae Nikolajev, 1999

Original spelling and citation: Brasilucanini Nikolajev 1999*a*: 171

Type genus: *Brasilucanus* Vulcano and Pereira, 1961: 473

†**Subfamily PARALUCANINAE Nikolajev, 2000**

Original spelling and citation: Paralucaninae Nikolajev 2000*b*: S328

Type genus: *Paralucanus* Nikolajev, 2000: S328 (Nikolajev 2000*b*)

Family OCHODAEIDAE Mulsant and Rey, 1871

Original spelling and citation: Ochodéens Mulsant and Rey 1871: 236

Type genus: *Ochodaeus* Dejean, 1821: 56

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

†**Subfamily CRETOCHODAEINAE Nikolajev, 1995**

Original spelling and citation: Cretochodaeni Nikolajev 1995*a*: 78

Type genus: *Cretochodaeus* Nikolajev, 1995: 79 (Nikolajev 1995*a*)

Subfamily OCHODAEINAE Mulsant and Rey, 1871

Original spelling and citation: Ochodéens Mulsant and Rey 1871: 236

Type genus: *Ochodaeus* Dejean, 1821: 56

Tribe OCHODAEINI Mulsant and Rey, 1871

Original spelling and citation: Ochodéens Mulsant and Rey 1871: 236

Type genus: *Ochodaeus* Dejean, 1821: 56

Tribe ENODOGNATHINI Scholtz, 1988

Original spelling and citation: Endognathini Scholtz in Scholtz *et al.* 1988: 228

Type genus: *Enodognathus* Benderitter, 1920: 112

Remark: Scholtz (1991) corrected Endognathini to Enodognathini to correct a misspelling of the type genus.

Subfamily CHAETOCANTHINAE Scholtz, 1988

Original spelling and citation: Chaetocanthinae Scholtz in Scholtz *et al.* 1988: 231

Type genus: *Chaetocanthus* Péringuey, 1901: 495

Tribe CHAETOCANTHINI Scholtz, 1988

Original spelling and citation: Chaetocanthini Scholtz in Scholtz *et al.* 1988: 231

Type genus: *Chaetocanthus* Péringuey, 1901: 495

Tribe PSEUDOCODAEBINI Scholtz, 1988

Original spelling and citation: Pseudochodaeini Scholtz in Scholtz *et al.* 1988: 235

Type genus: *Pseudochodaeus* Carlson and Ritcher, 1974: 99

Tribe SYNOCHODAEBINI Scholtz, 1988

Original spelling and citation: Synochodaeini Scholtz in Scholtz *et al.* 1988: 237

Type genus: *Synochodaeus* Kolbe, 1907: 27

Family Hybosoridae Erichson, 1847

Original spelling and citation: Hybosoridae Erichson 1847a: 104

Type genus: *Hybosorus* MacLeay, 1819: 120

Subfamily ANAIDINAE Nikolajev, 1996

Original spelling and citation: Anaidini Nikolajev 1996: 94

Type genus: *Anaides* Westwood, 1842: 457 (Westwood 1842a)

Synonym: Cryptogeniinae Howden, 2001

Original spelling and citation: Cryptogeniini Howden 2001: 199

Type genus: *Cryptogenius* Westwood, 1842: 457 (Westwood 1842a)

Subfamily CERATOCANTHINAE Martínez, 1968

Original spelling and citation: Ceratocanthini Martínez 1968: 14

Type genus: *Ceratocanthus* White, 1842: 93

Tribe CERATOCANTHINI Martínez, 1968

Original spelling and citation: Ceratocanthini Martínez 1968: 14

Type genus: *Ceratocanthus* White, 1842: 93

Synonym: Acanthocerini Lacordaire, 1856

Original spelling and citation: Acanthocérides Lacordaire 1856: 155

Type genus: *Acanthocerus* MacLeay, 1819: 136

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2. This family-group name is permanently invalid because the type genus, *Acanthocerus* MacLeay, 1819, is a junior homonym of *Acanthocerus* Palisot de Beauvois, 1818 (Hemiptera) (Article 39). *Ceratocanthus* White, 1842 was proposed as a replacement name for *Acanthocerus* MacLeay, 1819.

Tribe SCARABATERMITINI Nikolajev, 1999

Original spelling and citation: Scarabatermitini Nikolajev 1999b: 175

Type genus: *Scarabatermes* Howden, 1973: 29

Tribe IVIEOLINI Howden and Gill, 2000

Original spelling and citation: Iviolini Howden and Gill 2000: 315

Type genus: *Iviolus* Howden and Gill, 1988: 2077

Subfamily HYBOSORINAE Erichson, 1847

Original spelling and citation: Hybosoridae Erichson 1847a: 104

Type genus: *Hybosorus* MacLeay, 1819: 120

Subfamily LIPAROCHRINAE Ocampo, 2006

Original spelling and citation: Liparochninae Ocampo 2006: 29

Type genus: *Liparochnus* Erichson, 1848: 925

Subfamily PACHYPLECTRINAE Ocampo, 2006

Original spelling and citation: Pachyplectrinae Ocampo 2006: 30

Type genus: *Pachyplectrus* LeConte, 1874: 53

Family GLAPHYRIDAE MacLeay, 1819

Original spelling and citation: Glaphyridae MacLeay 1819: 76

Type genus: *Glaphyrus* Latreille, 1802: 150

Subfamily GLAPHYRINAE MacLeay, 1819

Original spelling and citation: Glaphyridae MacLeay 1819: 76

Type genus: *Glaphyrus* Latreille, 1802: 150

Remark: Amphicomites (Blanchard 1845: 211) was also used but was not subsequently Latinized and is therefore unavailable. From the context of Blanchard (1845), all his "Famille" and "Groupe" names with the "-ides" and "-ites" suffixes respectively are French vernacular names (some have accents).

†Subfamily CRETOGLAPHYRINAE Nikolajev, 2005

Original spelling and citation: Cretoglaphyrini Nikolajev 2005b: 70

Type genus: *Cretoglaphyrus* Nikolajev, 2005: 70 (Nikolajev 2005b)

Family SCARABAEIDAE Latreille, 1802

Original spelling and citation: Scarabæides Latreille 1802: 144

Type genus: *Scarabaeus* Linnaeus, 1758: 345

†Subfamily LITHOSCARABAEINAE Nikolajev, 1992

Original spelling and citation: Lithoscarabaeinae Nikolajev 1992: 76

Type genus: *Lithoscarabaeus* Nikolajev, 1992: 78

Subfamily CHIRONINAE Blanchard, 1845

Original spelling and citation: Chironites Blanchard 1845: 225

Type genus: *Chiron* MacLeay, 1819: 107

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2. The stem of this family-group name may be formed incorrectly but this spelling is in prevailing usage and must be maintained (Article 29.5).

Subfamily AEGIALIINAE Laporte, 1840

Original spelling and citation: Aegialites Laporte 1840: 99

Type genus: *Aegialia* Latreille, 1807: 96

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Synonym: Silluviinae Landin, 1949

Original spelling and citation: Silluviinae Landin 1949: 3

Type genus: *Silluvia* Landin, 1949: 5

Subfamily EREMAZINAE Iablokoff-Khnzorian, 1977

Original spelling and citation: Eremazini Iablokoff-Khnzorian 1977: 168

Type genus: *Eremazus* Mulsant, 1851: 139

Remark: Eremazina (Stebnicka, 1977: 488) was also used in the same year but with a later publication date.

Subfamily APHODIINAE Leach, 1815

Original spelling and citation: Aphodida Leach 1815a: 97

Type genus: *Aphodius* Illiger, 1798: 15 (Kugelann and Illiger 1798)

Remark: Several family-group names have been used for taxa within this subfamily that were not originally Latinized and have not been subsequently Latinized and accepted as valid. These names (and others like them) are unavailable: *Ammoeciates* (Mulsant 1842: 301), *Heptaulacates* (Mulsant and Rey 1870: 385), *Hexalates* (Mulsant and Rey 1870: 385), *Plagiogonates* (Mulsant and Rey 1870: 609), and *Pleurophorates* (Mulsant 1842: 304).

Tribe APHODIINI Leach, 1815

Original spelling and citation: *Aphodida* Leach 1815a: 97

Type genus: *Aphodius* Illiger, 1798: 15 (Kugelann and Illiger 1798)

Subtribe APHODIINA Leach, 1815

Original spelling and citation: *Aphodida* Leach 1815a: 97

Type genus: *Aphodius* Illiger, 1798: 15 (Kugelann and Illiger 1798)

Subtribe DIDACTYLIINA Pittino, 1985

Original spelling and citation: *Didactyliina* Pittino 1985: 270

Type genus: *Didactylia* d'Orbigny, 1896: 247

Subtribe PROCTOPHANINA Stebnicka and Howden, 1995

Original spelling and citation: *Proctophanini* Stebnicka and Howden 1995: 742

Type genus: *Proctophanes* Harold, 1861: 111

Tribe CORYTHODERINI Schmidt, 1910

Original spelling and citation: *Corythoderina* Schmidt 1910: 137

Type genus: *Corythoderus* Klug, 1845: [8]

Tribe EUPARIINI Schmidt, 1910

Original spelling and citation: *Eupariina* Schmidt 1910: 102

Type genus: *Euparia* LePeletier and Serville, 1828: 357 (*LePeletier and Serville, 1828a*)

Synonym: *Ataeniini* Harold, 1868

Original spelling and citation: *Ataenidae* Harold 1868: 278

Type genus: *Ataenius* Harold, 1867: 82 (*Harold 1867b*)

Remark: Although *Ataeniini* has priority over *Eupariini*, the later is in prevailing usage and must be considered the valid using a reversal of precedence (Article 23.9). *Ataeniini* has not been used as a valid name since it was first proposed. Therefore, I invoke Article 23.9.2 and provide evidence that *Eupariini* has been used as a valid name in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years. In compliance with the requirements of the Code, the following list of qualified publications, in chronological order, used *Eupariini* (with any recognized family-group suffix) as a valid family-group name, which is sufficient evidence that it is in prevailing usage: Balthasar 1964; Cartwright 1977; Endrödi and Rakovič 1981; Chalumeau 1983; Ratcliffe 1991; Chalumeau 1992; Deloya 1994; Stebnicka and Howden 1996; Stebnicka 1997; Stebnicka 2001a; Stebnicka 2001b; Dellacasa and Stebnicka 2001; Martínez, Deloya, and Dellacasa 2001; Cruz and Martínez 2002; Skelley and Gordon 2002; Stebnicka 2002a; Stebnicka 2002b; Gordon and McCleve 2003; Stebnicka 2003a; Stebnicka 2003b; Stebnicka 2003c; Ordóñez Reséndiz and Deloya 2004; Stebnicka 2004; Masumoto and Ochi 2005; Smith 2005; Stebnicka 2005a; Stebnicka 2005b; and Stebnicka and Lago 2005.

Synonym: *Lomanoxiini* Stebnicka, 1999

Original spelling and citation: *Lomanoxiini* Stebnicka 1999: 280

Type genus: *Lomanoxia* Martínez, 1951: 29

Tribe ODONTOLOCHINI Stebnicka and Howden, 1996

Original spelling and citation: *Odontolochini* Stebnicka and Howden 1996: 99

Type genus: *Odontolochus* Schmidt, 1916: 99

Tribe ODOCHILINI Rakovič, 1987

Original spelling and citation: Odochilini Rakovič 1987: 29

Type genus: *Odochilus* Harold, 1877: 97

Tribe PSAMMODIINI Mulsant, 1842

Original spelling and citation: Psammodiaires Mulsant 1842: 317

Type genus: *Psammodius* Fallén, 1807: 37

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Subtribe PSAMMODIINA Mulsant, 1842

Original spelling and citation: Psammodiaires Mulsant 1842: 317

Type genus: *Psammodius* Fallén, 1807: 37

Synonym: Psammobiina Schmidt, 1910: 115

Original spelling and citation: Psammobiina Schmidt 1910: 115

Type genus: *Psammobius* Heer, 1841: 531

Subtribe RHYSEMINA Pittino and Mariani, 1986

Original spelling and citation: Rhysemina Pittino and Mariani 1986: 17

Type genus: *Rhysemus* Mulsant, 1842: 314

Tribe RHYPARINI Schmidt, 1910

Original spelling and citation: Rhyparina Schmidt 1910: 130

Type genus: *Rhyparus* Westwood, 1845: xciii (Westwood 1845b*)

Remark: The original spelling of the type genus is *Ryparus* and Agassiz (1847) later made the unjustified emendation to *Rhyparus*. Since this unjustified emendation is in prevailing usage, it should be considered a justified emendation (Article 33.2.3.1). The emended spelling avoids homonymy with *Ryparus* Spinola, 1844 (Coleoptera: Cleridae). *Rhyparus* Westwood, 1845 is a senior homonym of *Rhyparus* Agassiz, 1847 (Coleoptera: Cleridae). The later name is an unjustified emendation of *Ryparus* Spinola, 1844 and is not in prevailing usage. Since the emended spelling is not in prevailing usage for the Cleridae name, *Ryparus* Spinola, 1844 and the Cleridae *Rhyparus* Agassiz, 1847 should both be treated as separate names.

Tribe STEREOMERINI Howden and Storey, 1992

Original spelling and citation: Stereomerini Howden and Storey 1992: 1811

Type genus: *Stereomera* Arrow, 1905: 534

Tribe TERMITODERINI Tangelder and Krikken, 1982

Original spelling and citation: Termitoderini Tangelder and Krikken 1982: 10

Type genus: *Termitoderus* Mateu, 1966: 718

Tribe THINORYCTERINI Semenov-Tian-Shanskij and Reichardt, 1925

Original spelling and citation: Thinorycterina Semenov-Tian-Shanskij and Reichardt 1925: 86

Type genus: *Thinorycter* Semenov-Tian-Shanskij and Reichardt, 1925: 83

Tribe PHYCOCHINI Landin, 1960

Original spelling and citation: Phycochini Landin 1960: 59

Type genus: *Phycochus* Broun, 1886: 770

Subfamily AULONOCNEMINAE Janssens, 1946

Original spelling and citation: Aulonocneminae Janssens 1946: 7

Type genus: *Aulonocnemis* Klug, 1838: 70

Subfamily TERMITOTROGINAE Wasmann, 1918

Original spelling and citation: Termitotrogini Wasmann 1918: 4

Type genus: *Termitotrox* Reichensperger, 1915: 16

Subfamily SCARABAEINAE Latreille, 1802

Original spelling and citation: Scarabæides Latreille 1802: 144

Type genus: *Scarabaeus* Linnaeus, 1758: 345

Tribe EUCRANINI Burmeister, 1873

Original spelling and citation: Eucraniadae Burmeister 1873: 405

Type genus: *Eucranium* Brullé, 1837: 289 (Audouin and Brullé 1837)

Synonym: Ennearabdini Pereira and Martínez, 1956

Original spelling and citation: Ennearabdini Pereira and Martínez 1956: 238.

Type genus: *Ennearabdus* van Lansberge, 1874: CXLIII (van Lansberge 1874a)

Tribe GYMNOLEURINI Lacordaire, 1856

Original spelling and citation: Gymnopleurides Lacordaire 1856: 72

Type genus: *Gymnopleurus* Illiger, 1803: 199

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Tribe EURYSTERNINI Vulcano, Martínez, and Pereira, 1961

Original spelling and citation: Eurysternini Vulcano, Martínez, and Pereira 1961: 268

Type genus: *Eurysternus* Dalman, 1824: 8

Tribe CANTHONINI van Lansberge, 1874

Original spelling and citation: Canthonides van Lansberge 1874b: 184

Type genus: *Canthon* Hoffmannsegg, 1817: 38

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2. Two family-group names have been used for taxa within this tribe that were not originally Latinized and have not been subsequently Latinized and accepted as valid. These names are unavailable: Epirinides (van Lansberge 1874b: 189) and Minthophilides (Lacordaire 1856: 80). From the context of van Lansberge (1874b), all his “tribu” names with the “-ides” suffix are French vernacular names (some have accents).

Synonym: Deltochilini Lacordaire, 1856

Original spelling and citation: Deltochilides Lacordaire, 1856: 78

Type genus: *Deltochilum* Eschscholtz, 1822: 37

Remark: Although this family-group name was not originally proposed in a Latinized form, it was subsequently Latinized by Germain (1903: 354) and should be considered available under Article 11.7.2. Although Deltochilini has priority over Canthonini, the latter is in prevailing usage at the tribal level and must not be displaced by the older name (Article 35.5).

Synonym: Epilissini van Lansberge, 1874

Original spelling and citation: Epilissides van Lansberge, 1874: 188 (van Lansberge 1874b)

Type genus: *Epilissus* Dejean, 1836: 151

Remark: Although this family-group name was not originally proposed in a Latinized form, it was subsequently been Latinized by Lebis (1953: 107) and should be considered available under Article 11.7.2.

Synonym: Panelini Arrow, 1931

Original spelling and citation: Panelini Arrow 1931: 404

Type genus: *Panelus* Lewis, 1895: 375

Tribe COPRINI Leach, 1815

Original spelling and citation: Coprides Leach 1815a: 96

Type genus: *Copris* Geoffroy, 1762: 59

Synonym: *Coptodactylini* Janssens, 1946

Original spelling and citation: *Coptodactylides* Janssens 1946: 13

Type genus: *Coptodactyla* Burmeister, 1846: [3]

Tribe ATEUCHINI Laporte, 1840

Original spelling and citation: *Ateuchites* Laporte 1840: 63

Type genus: *Ateuchus* Weber, 1801: 10

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2. *Dichotomides* (Halffter 1961: 228) and *Dichotomiini* (Halffter and Matthews 1966: 256) were used as a family-group name for taxa within this tribe but neither was described or validated in any code compliant way, therefore the name is unavailable.

Synonym: *Scatonomini* Lacordaire, 1856

Original spelling and citation: *Scatonomides* Lacordaire, 1856: 87

Type genus: *Scatonomus* Erichson, 1835: 256

Remark: Although this family-group name was not originally proposed in a Latinized form, it was subsequently been Latinized by Harold (1867a: 9) and should be considered available under Article 11.7.2.

Synonym: *Choeridiini* Harold, 1867

Original spelling and citation: *Choerididae* Harold 1867a: 9

Type genus: *Choeridium* LePeletier and Serville, 1828: 536 (LePeletier and Serville, 1828a)

Synonym: *Pinotini* Kolbe, 1905

Original spelling and citation: *Pinotinae* Kolbe 1905: 548

Type genus: *Pinotus* Erichson, 1847: 108 (Erichson 1847a)

Tribe ONITICELLINI Kolbe, 1905

Original spelling and citation: *Oniticellini* Kolbe 1905: 547

Type genus: *Oniticellus* Dejean, 1821: 53

Subtribe DREPANOCERINA van Lansberge, 1875

Original spelling and citation: *Drèpanocérides* van Lansberge 1875: 14

Type genus: *Drepanocerus* Kirby, 1828: 521

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2. Although *Drepanocerina* has priority over *Oniticellini*, the later is in prevailing usage at the tribal level and must not be displaced by the older name (Article 35.5).

Subtribe ONITICELLINA Kolbe, 1905

Original spelling and citation: *Oniticellini* Kolbe 1905: 547

Type genus: *Oniticellus* Dejean, 1821: 53

Subtribe HELICTOPLEURINA Janssens, 1946

Original spelling and citation: *Helictopleurides* Janssens 1946: 11

Type genus: *Helictopleurus* d'Orbigny, 1915: 402

Tribe ONITINI Laporte, 1840

Original spelling and citation: *Onitides* Laporte 1840: 88

Type genus: *Onitis* Fabricius, 1798: 25

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Tribe ONTHOPHAGINI Burmeister, 1846

Original spelling and citation: *Onthophagidae* Burmeister 1846: [1]

Type genus: *Onthophagus* Latreille, 1802: 141

Synonym: *Alloscelini* Janssens, 1946

Original spelling and citation: *Alloscelides* Janssens 1946: 10

Type genus: *Alloscelus* Boucomont, 1923: 1

Tribe SCARABAEINI Latreille, 1802

Original spelling and citation: *Scarabæides* Latreille 1802: 144

Type genus: *Scarabaeus* Linnaeus, 1758: 345

Synonym: *Pachysomatini* Ferreira, 1953

Original spelling and citation: *Pachysomides* Ferreira, 1953: 8

Type genus: *Pachysoma* MacLeay, 1821: 507

Synonym: *Actinophorini* Ádám, 2003

Original spelling and citation: *Actinophorini* Ádám 2003: 130

Type genus: *Actinophorus* Creutzer, 1799: 79*

Remark: The genus *Actinophorus* is a junior synonym of *Scarabaeus* therefore the family-group name *Actinophorini* is a synonym of *Scarabaeini*.

Tribe PHANAEINI Kolbe, 1905

Original spelling and citation: *Phanaeinae* Kolbe 1905: 550

Type genus: *Phanaeus* MacLeay, 1819: 124

Tribe SISYPHINI Mulsant, 1842

Original spelling and citation: *Sisyphaires* Mulsant 1842: 41

Type genus: *Sisyphus* Latreille, 1807: 79

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2. The original spelling of the type genus is *Sisyphæ*, however, the incorrect subsequent spelling *Sisyphus* is in prevailing usage and should be considered the correct original spelling (Article 33.3.1).

†**Subfamily PROTOTROGINAE Nikolajev, 2000**

Original spelling and citation: *Prototroginae* Nikolajev 2000a: 63

Type genus: *Prototrox* Nikolajev, 2000: 65 (Nikolajev 2000a)

†**Subfamily CRETOSCARABAEINAE Nikolajev, 1995**

Original spelling and citation: *Cretoscarabaeinae* Nikolajev 1995b: 147

Type genus: *Cretoscarabaeus* Nikolajev, 1995: 147 (Nikolajev 1995b)

Subfamily DYNAMOPODINAE Arrow, 1911

Original spelling and citation: *Dynamopinæ* Arrow 1911b: 611

Type genus: *Dynamopus* Semenov-Tian-Shanskij, 1895: 336

Remark: Lawrence and Newton (1995) corrected the stem of this family-group name.

Subfamily PHAENOMERIDINAE Erichson, 1847

Original spelling and citation: *Phaenomerini* Erichson 1847b: 655

Type genus: *Phaenomeris* Hope, 1833: 62

Remark: The International Commission on Zoological Nomenclature (1962) emended the stem of this family-group name from *Phaenomer-* to *Phaenomerid-* thus removing it from homonymy with another family-group name. In this ruling, “Ohaus, 1913” was erroneously given as the original author of this family-group name.

Subfamily ORPHNINAE Erichson, 1847

Original spelling and citation: *Orphnidae* Erichson 1847a: 111

Type genus: *Orphnus* MacLeay, 1819: 119

Tribe ORPHNINI Erichson, 1847

Original spelling and citation: *Orphnidae* Erichson 1847a: 111

Type genus: *Orphnus* MacLeay, 1819: 119

Remark: Hybalites (Jacquelin du Val and Fairmaire 1859: 31) was used for taxa within this tribe but this family-group name was not originally Latinized and has not been subsequently Latinized and accepted as valid, therefore it is unavailable. From the context of Jacquelin du Val and Fairmaire (1859), all their “Groupe” names are French vernacular names (some have accents) even though they have the “-ites” suffix.

Tribe AEGIDIINI Paulian, 1984

Original spelling and citation: Aegidiinae Paulian 1984: 68

Type genus: *Aegidium* Westwood, 1845: 440 (Westwood 1845a)

Remark: The type genus was described three times in 1845 by Westwood (1845a: 440, 1845c: 158) and Blanchard (1845: 221). The earliest known publication dates for these papers are as follows: Westwood 1845a: 1 June 1845 (Evenhuis 2003), Blanchard 1845: 28 June 1845 (Evenhuis 1997), and Westwood 1845c: 25 November 1845 (Wheeler 1912). Therefore Westwood (1845a) has priority and must be considered the publication that first made *Aegidium* available under the ICZN.

Subfamily ALLIDIOSTOMATINAE Arrow, 1940

Original spelling and citation: Allidiostomidae Arrow 1940: 16

Type genus: *Allidiostoma* Arrow, 1940: 16

Remark: Lawrence and Newton (1995) corrected the stem of this family-group name.

Synonym: Idiostomatinae Arrow, 1904

Original spelling and citation: Idiostominae Arrow 1904: 747

Type genus: *Idiostoma* Arrow, 1904: 740

Remark: This family-group name is permanently invalid because the type genus, *Idiostoma* Arrow, 1904, is a junior homonym of *Idiostoma* Walsingham, 1882 (Lepidoptera) (Article 39). *Allidiostoma* Arrow, 1940 was proposed as a replacement name for *Idiostoma* Arrow, 1904.

Subfamily ACLOPINAE Blanchard, 1850

Original spelling and citation: Aclopitae Blanchard 1850: 96

Type genus: *Aclopus* Erichson, 1835: 259

Tribe ACLOPINI Blanchard, 1850

Original spelling and citation: Aclopitae Blanchard 1850: 96

Type genus: *Aclopus* Erichson, 1835: 259

Tribe PHAENOGNATHINI Iablokoff-Khnzorian, 1977

Original spelling and citation: Phaenognathini Iablokoff-Khnzorian 1977: 137

Type genus: *Phaenognatha* Hope, 1842: 45 (Hope 1842b)

Remark: The genus was spelled *Phaenognathus* and *Phaenognatha* in the paper validating the name but the later spelling is in prevailing usage and is the correct spelling (Allsopp 1981).

†**Tribe HOLCOROBEINI Nikolajev, 1992**

Original spelling and citation: Holcorobeini Nikolajev 1992: 81

Type genus: *Holcorobeus* Nikritin, 1977: 127

Remark: The type genus was spelled both *Holcorobeus* (6 times) and *Holcoribeus* (1 time) in the paper containing the original description. *Holcorobeus* is obviously the intended spelling and has been adapted by subsequent authors, therefore this should be considered the correct spelling.

Subfamily MELOLONTHINAE Leach, 1819

Original spelling and citation: Melolonthidæ Leach in Samouelle 1819: 189

Type genus: *Melolontha* Fabricius, 1775: 31

Remark: This family-group name was proposed in a publication by Samouelle (1819) but was attributed by Samouelle to Leach. Therefore Leach is the author of the name but “Leach in Samouelle” can also be used to facilitate information retrieval as

suggested in Recommendation 51E of the ICZN. Leach (Samouelle 1819) and MacLeay (1819) both used Melolonthidae in the same year. Samouelle was published first (June 1819) and MacLeay later (November 1819) so Leach in Samouelle has priority and should be credited with authorship of this name. The publication dates of these references were reported in the “Catalogue of the Library of the Linnean Society” in Transactions of the Linnean Society and in Evenhuis (1997) (both from independent sources). The type genus, *Melolontha* Fabricius, 1775, is not a junior homonym of *Melolontha* Geoffroy, 1762. The Geoffroy name was suppressed for the purposes of the Principle of Priority and the Principle of Homonymy (ICZN 1994).

Tribe PACHYPODINI Erichson, 1840

Original spelling and citation: Pachypoden Erichson 1840: 29

Type genus: *Pachypus* Dejean, 1821: 57

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2. Billberg (1820: 390) used the name *Pachypus* prior to Dejean (1821), but this name was not made available under the ICZN in that publication. Therefore, Dejean (1821) is the author of the genus and it is not a junior homonym.

Tribe LICHNIINI Burmeister, 1844

Original spelling and citation: Lichniadae Burmeister 1844: 8

Type genus: *Lichnia* Erichson, 1835: 269

Tribe EUCHIRINI Hope, 1840

Original spelling and citation: Eucheiridae Hope 1840: 300

Type genus: *Euchirus* Kirby, 1828: 636 (Kirby and Spence 1828)

Remark: The incorrect subsequent spelling *Eucheirus* originated with Hope (1837: 24) and should not be used.

Tribe SYSTELLOPINI Sharp, 1877

Original spelling and citation: Systellopides Sharp 1877: 311

Type genus: *Systellopus* Sharp, 1877: 315

Tribe CHASMATOPTERINI Lacordaire, 1856

Original spelling and citation: Chasmatoptérides Lacordaire 1856: 220

Type genus: *Chasmatopterus* Dejean, 1821: 60

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Tribe ONCERINI LeConte, 1861

Original spelling and citation: Oncerini LeConte 1861: 133

Type genus: *Oncerus* LeConte, 1856: 283 (LeConte 1856a)

Tribe PODOLASIINI Howden, 1997

Original spelling and citation: Podolasiini Howden 1997: 224

Type genus: *Podolasia* Harold, 1869: 122

Synonym: Lasiopodini LeConte, 1856

Original spelling and citation: Lasiopodes LeConte 1856a: 282

Type genus: *Lasiopus* LeConte, 1856: 282 (LeConte 1856a)

Remark: This family-group name is permanently invalid because the type genus, *Lasiopus* LeConte, 1856, is a junior homonym of *Lasiopus* Schönherr, 1823 (Coleoptera: Curculionidae) and *Lasiopus* Geoffroy, 1835 (Mammalia) (Article 39). *Podolasia* Harold, 1869 was proposed as a replacement name for *Lasiopus* LeConte, 1856.

Tribe ABLABERINI Blanchard, 1850

Original spelling and citation: Ablaberitae Blanchard 1850: 100

Type genus: *Ablabera* Dejean, 1833: 159

Synonym: Camentini Machatschke, 1959

Original spelling and citation: Camentini Machatschke 1959: 743

Type genus: *Camenta* Erichson, 1847: 695 (Erichson 1847*b*)

Tribe SERICINI Kirby, 1837

Original spelling and citation: Sericidae Kirby 1837: 128

Type genus: *Serica* MacLeay, 1819: 146

Remark: Hope (1837) and Kirby (1837) both used Sericidae in the same year and the Hope (1837) paper refers to the Kirby (1837) paper. This is internal evidence in Hope (1837) that the Kirby (1837) paper was published first so Kirby should be credited with authorship of this family-group name.

Subtribe PHYLLOTOCINA Burmeister, 1855

Original spelling and citation: Phyllotocidae Burmeister 1855: 182

Type genus: *Phyllotocus* Fisher von Waldheim, 1823: 255

Subtribe SERICINA Kirby, 1837

Original spelling and citation: Sericidae Kirby 1837: 128

Type genus: *Serica* MacLeay, 1819: 146

Remark: *Omalopliites* (Blanchard 1845: 212) was used for taxa within this tribe but this family-group name was not originally Latinized and has not been subsequently Latinized and accepted as valid, therefore it is unavailable. From the context of Blanchard (1845), all his “Famille” and “Groupe” names with the “-ides” and “-ites” suffixes respectively are French vernacular names (some have accents).

Synonym: *Homalopliina* Burmeister, 1855

Original spelling and citation: *Homalopliidae* Burmeister 1855: 147

Type genus: *Homaloplia* Agassiz, 1847: 258

Remark: The type genus is an unjustified emendation of *Omaloplia* Schönherr, 1817. Since the emended spelling is not in prevailing usage this name should be considered as a separate, available name. Erichson (1847*b*: 700) used *Homaloplia* in the same year as Agassiz (1847) but the exact publication dates of these works are unclear. Agassiz (1847) is dated 1846 on the cover page so I am assuming that it came out early in the following year.

Synonym: *Astaenina* Burmeister, 1855

Original spelling and citation: *Astaenidae* Burmeister 1855: 123

Type genus: *Astaena* Erichson, 1847: 101 (Erichson 1847*a*)

Subtribe TROCHALINA Brenske, 1898

Original spelling and citation: *Trochalinae* Brenske 1898: 354

Type genus: *Trochalus* Laporte, 1832: [1] (Laporte 1832*c*)

Tribe PHYLLOTOCIDIINI Britton, 1957

Original spelling and citation: *Phyllotocidiini* Britton 1957: 9

Type genus: *Phyllotocidium* Blackburn, 1898: 24

Tribe DIPHUCEPHALINI Laporte, 1840

Original spelling and citation: *Diphucephalites* Laporte 1840: 145

Type genus: *Diphucephala* Dejean, 1821: 58

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Tribe COMOPHORININI Britton, 1957

Original spelling and citation: *Comophorini* Britton 1957: 10

Type genus: *Comophorina* Strand, 1928: 3

Tribe STETHASPINI Burmeister, 1855

Original spelling and citation: *Stethaspididae* Burmeister 1855: 218

Type genus: *Stethaspis* Hope, 1837: 40

Remark: Although *Stethaspini* has not been used in any publication since before 1900 and *Xylonichini* has been used recently as a valid tribe, a reversal of precedence (Article 23.9) cannot be used to preserve the latter. *Xylonichini* has not been used as a valid name in at least 25 works published by at least 10 authors in the immediately preceding 50 years. Therefore, *Stethaspini* must be considered the valid name for this tribe.

Synonym: *Xylonichini* Britton, 1957

Original spelling and citation: *Xylonychini* Britton 1957: 9

Type genus: *Xylonichus* Boisduval, 1835: 186

Remark: Two spellings have been used for the type genus: *Xylonichus*, the original spelling and *Xylonychus*, an incorrect subsequent spelling. The incorrect subsequent spelling was used to form the family-group name. Since neither spelling is in prevailing usage (Britton 1957, Houston and Weir 1992) the original spelling should be used as the correct one. Therefore, the family-group name must be emended to match the original and correct spelling of the type genus (Article 35.4.1).

Tribe AUTOMOLIINI Britton, 1978

Original spelling and citation: *Automoliini* Britton 1978: 7

Type genus: *Automolius* Britton, 1978: 7

Remark: This genus-group name and family-group name are replacement names for *Automolus* Burmeister, 1855 (a junior homonym) and *Automolini* Britton, 1957.

Synonym: *Caulobiini* Burmeister, 1855

Original spelling and citation: *Caulobiina* Burmeister 1855: 204

Type genus: *Caulobius* Le Guillou, 1844: 224

Remark: This family-group name is permanently invalid because the type genus, *Caulobius* Le Guillou, 1844, is a junior homonym of *Caulobius* Duponchel, 1838 (Lepidoptera) (Article 39). *Deuteroaulobius* Dalla Torre, 1912 was proposed as a replacement name for *Caulobius* Le Guillou, 1844.

Synonym: *Automolini* Britton, 1957

Original spelling and citation: *Automolini* Britton 1957: 9

Type genus: *Automolus* Burmeister, 1855: 202

Remark: This family-group name is permanently invalid because the type genus, *Automolus* Burmeister, 1855, is a junior homonym of *Automolus* Reichenbach, 1853 (Aves). Consequently the genus-group name and associated family-group name were both replaced by Britton (1978) (see *Automoliini* above).

Tribe MAECHIDIINI Burmeister, 1855

Original spelling and citation: *Maechidiina* Burmeister 1855: 208

Type genus: *Maechidius* MacLeay, 1819: 140

Tribe LIPARETRINI Burmeister, 1855

Original spelling and citation: *Liparetridae* Burmeister 1855: 187

Type genus: *Liparetrus* Guérin-Ménéville, 1831: 3

Synonym: *Haplonychini* Burmeister, 1855

Original spelling and citation: *Haplonychidae* Burmeister 1855: 224

Type genus: *Haplonycha* Dejean, 1836: 179

Remark: The original spelling of the type genus is *Aplonycha* but Agassiz (1847: 29) made the unjustified emendation to *Haplonycha*. Since this unjustified emendation is in prevailing usage, it should be considered a justified emendation (Article 33.2.3.1). Britton (1986) commented that this generic name was not made available from where it first appeared in text (in Dejean 1833). Although this is correct, Britton overlooked the next edition (Dejean 1836) of the Dejean catalogue, which does properly validate this name. *Haplonycha* Dejean, 1836 is currently considered to be a junior synonym of *Colpochila* Erichson, 1843.

Synonym: Allarini Britton, 1955

Original spelling and citation: Allarini Britton 1955: 125

Type genus: *Allara* Britton, 1955: 124

Synonym: Colpochilini Britton, 1957

Original spelling and citation: Colpochilini Britton 1957: 10

Type genus: *Colpochila* Erichson, 1843: 195

Tribe SCITALINI Britton, 1957

Original spelling and citation: Scitalini Britton 1957: 10

Type genus: *Scitala* Erichson, 1842; 166

Tribe PACHYTRICHINI Burmeister, 1855

Original spelling and citation: Pachytrichiadae Burmeister 1855: 241

Type genus: *Pachytricha* Hope, 1841: 303

Tribe SERICOIDINI Erichson, 1847

Original spelling and citation: Sericoideae Erichson 1847a: 102

Type genus: *Sericoides* Guérin-Méneville, 1840: 301

Tribe HETERONYCHINI Lacordaire, 1856

Original spelling and citation: Hétéronychides Lacordaire 1856: 225

Type genus: *Heteronyx* Guérin-Méneville, 1831: 3

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Tribe DIPLOTAXINI Kirby, 1837

Original spelling and citation: Diplotaxidae Kirby 1837: 129

Type genus: *Diplotaxis* Kirby, 1837: 129

Synonym: Apogoniini Blanchard, 1851

Original spelling and citation: Apogoniitae Blanchard 1851: 228

Type genus: *Apogonia* Kirby, 1819: 401 (Kirby 1819a)

Synonym: Liogenini Blanchard, 1851

Original spelling and citation: Liogenitae Blanchard 1851: 166

Type genus: *Liogenys* Guérin-Méneville, 1831: 3

Tribe MELOLONTHINI Leach, 1819

Original spelling and citation: Melolonthidae Leach in Samouelle 1819: 189

Type genus: *Melolontha* Fabricius, 1775: 31

Subtribe SCHIZONYCHINA Burmeister, 1855

Original spelling and citation: Schizonychidae Burmeister 1855: 265

Type genus: *Schizonycha* Dejean, 1833: 161

Subtribe ENARIINA Dewailly, 1950

Original spelling and citation: Enarina Dewailly 1950: 323

Type genus: *Enaria* Erichson, 1847: 657 (Erichson 1847b)

Subtribe HEPTOPHYLLINA Medvedev, 1951

Original spelling and citation: Heptophyllini Medvedev 1951: 197

Type genus: *Heptophylla* Motschulsky, 1858: 32

Subtribe PEGYLINA Lacroix, 1989

Original spelling and citation: Pegylini Lacroix 1989: 115

Type genus: *Pegylis* Erichson, 1847: 657 (Erichson 1847b)

Subtribe RHIZOTROGINA Burmeister, 1855

Original spelling and citation: Rhizotrogidae Burmeister 1855: 308

Type genus: *Rhizotrogus* Latreille, 1825: 371

Remark: The original spelling of the type genus is *Rhizotrogue* but Berthold (1827) made the unjustified emendation to *Rhizotrogus*. Since this unjustified emendation is in prevailing usage, it should be considered a justified emendation (Article 33.2.3.1) (see Branco 2006 for more details).

Subtribe LEUCOPHOLINA Burmeister, 1855

Original spelling and citation: Leucopholidæ Burmeister 1855: 285

Type genus: *Leucopholis* Dejean, 1833: 160

Subtribe MELOLONTHINA Leach, 1819

Original spelling and citation: Melolonthidæ Leach in Samouelle 1819: 189

Type genus: *Melolontha* Fabricius, 1775: 31

Synonym: Polyphyllina Burmeister, 1855

Original spelling and citation: Polyphyllidæ Burmeister 1855: 397

Type genus: *Polyphylla* Harris, 1841: 30

Synonym: Tostegopterina LeConte, 1861

Original spelling and citation: Tostegopterae LeConte 1861: 139

Type genus: *Tostegoptera* Blanchard, 1851: 149

Synonym: Psilonychini Péringuey, 1904

Original spelling and citation: Psilonychides Péringuey, 1904: 184

Type genus: *Psilonychus* Burmeister, 1855: 288

Tribe PACHYDEMINI Burmeister, 1855

Original spelling and citation: Pachydemidæ Burmeister 1855: 437

Type genus: *Pachydema* Laporte, 1832: [1] (Laporte 1832*b*)

Remark: Calicnémites (Blanchard 1845: 219) was used for taxa within this tribe but this family-group name was not originally Latinized and has not been subsequently Latinized and accepted as valid, therefore it is unavailable. From the context of Blanchard (1845), all his “Famille” and “Groupe” names with the “-ides” and “-ites” suffixes respectively are French vernacular names (some have accents).

Synonym: Elaphocerini Blanchard, 1851

Original spelling and citation: Elaphoceritæ Blanchard 1851: 164

Type genus: *Elaphocera* Gené, 1836: 188

Remark: Although Elaphocerini has priority over Pachydemini, the later is in prevailing usage and must be considered the valid using a reversal of precedence (Article 23.9). Elaphocerini has not been used as a valid name after 1899. Therefore, I invoke Article 23.9.2 and provide evidence that Pachydemini has been used as a valid name in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years. In compliance with the requirements of the Code, the following list of qualified publications, in chronological order, used Pachydemini as a valid family-group name, which is sufficient evidence that it is in prevailing usage: Petrovitz 1968; Martínez 1972; Martínez 1973; Frey 1974*a*; Frey 1974*b*; Martínez 1975; Hardy 1978; Baraud 1979; Baraud 1982; Martínez 1982; Baraud 1985; López Colón 1986; López Colón 1989; Baraud 1991; Baraud and Branco 1991; Chavanon and Zirari 1998; Sabatinelli and Pontuale 1998; Nikolajev 2000*c*; Lacroix 2001; Vincini, López, Alvarez-Castillo, Carmona, Manetti, and Morón 2001; Keith 2002; Miessen and Cludts 2002; Lacroix 2003; Montreuil 2003; Sanmartín 2003; Sanmartín and Martín-Piera 2003; Keith and Montreuil 2004; Lacroix 2004; Keith 2005; Lacroix 2005; Smith and Evans 2005.

Synonym: Achloini Burmeister, 1855

Original spelling and citation: Achloidae Burmeister 1855: 465

Type genus: *Achloa* Erichson, 1840: 41

Synonym: Cephalotrichiini Burmeister, 1855

Original spelling and citation: Cephalotrichiadae Burmeister 1855: 433

Type genus: *Cephalotrichia* Hope, 1837: 39

Synonym: Leptopodini Burmeister, 1855

Original spelling and citation: Leptopodidae Burmeister 1855: 428

Type genus: *Leptopus* Dejean, 1833: 159

Remark: This family-group name is permanently invalid because the type genus, *Leptopus* Dejean, 1833, is a junior homonym of *Leptopus* Latreille, 1809 (Hemiptera), *Leptopus* Rafinesque, 1814 (Pisces), *Leptopus* Lamarck, 1818 (Crustacea), and *Leptopus* Fallén, 1823 (Diptera) (Article 39).

Synonym: Macrophyllini Burmeister, 1855

Original spelling and citation: Macrophyllidae Burmeister 1855: 447

Type genus: *Macrophylla* Hope, 1837: 103

Synonym: Sparrmanniini Péringuey, 1904

Original spelling and citation: Sparrmannini Péringuey 1904: 115

Type genus: *Sparrmannia* Laporte, 1840: 132

Remark: Although *Sparrmannia* was the original spelling of this genus, *Sparrmannia* is in prevailing usage and should be considered the correct spelling (see Evans 1989).

Tribe MACRODACTYLINI Kirby, 1837

Original spelling and citation: Macroductylidae Kirby 1837: 133

Type genus: *Macroductylus* Dejean, 1821: 58

Remark: *Philochlénides* (Lacordaire 1856: 256) was used for taxa within this tribe but was not originally Latinized and has not been subsequently Latinized and accepted as valid, therefore it is unavailable.

Synonym: Ceraspini Burmeister, 1855

Original spelling and citation: Ceraspididae Burmeister 1855: 91

Type genus: *Ceraspis* LePeletier and Serville, 1828: 370 (LePeletier and Serville, 1828*a*)

Synonym: Dichelonychini Burmeister, 1855

Original spelling and citation: Dichelonychidae Burmeister 1855: 70

Type genus: *Dichelonyx* Harris, 1827: 7

Synonym: Dicraniini Burmeister, 1855

Original spelling and citation: Dicraniadae Burmeister 1855: 65

Type genus: *Dicrania* LePeletier and Serville, 1828: 371 (LePeletier and Serville, 1828*a*)

Synonym: Isonychini Burmeister, 1855

Original spelling and citation: Isonychidae Burmeister 1855: 22

Type genus: *Isonychus* Mannerheim, 1829: 69

Synonym: Microcraniini Burmeister, 1855

Original spelling and citation: Microcraniadae Burmeister 1855: 75

Type genus: *Microcrania* Burmeister, 1855: 75

Synonym: Plectrini Burmeister, 1855

Original spelling and citation: Plectridae Burmeister 1855: 80

Type genus: *Plectris* LePeletier and Serville, 1828: 369 (LePeletier and Serville, 1828*a*)

Synonym: Clavipalpini Lacordaire, 1856

Original spelling and citation: Clavipalpides Lacordaire, 1856: 267

Type genus: *Clavipalpus* Laporte, 1832: 406 (Laporte 1832*a*)

Remark: Clavipalpides (Lacordaire 1856: 267) and Clavipalpidae / Clavipalpides (Imhoff 1856: 12) were both used in the same year. The Imhoff (1856) paper refers to the Lacordaire (1856) paper numerous times. This is internal evidence in Imhoff (1856) that the Lacordaire (1856) paper was published first so Lacordaire should be credited with authorship of this family-group name. Although this family-group name was not originally proposed in a Latinized form it has subsequently been Latinized and should be considered available under Article 11.7.2.

Tribe DIPHYCERINI Medvedev, 1952

Original spelling and citation: Diphycerini Medvedev 1952: 186

Type genus: *Diphycerus* Deyrolle and Fairmaire, 1878: 100

Tribe HOPLIINI Latreille, 1829

Original spelling and citation: Hopliides Latreille 1829: 563

Type genus: *Hoplia* Illiger, 1803: 226

Subtribe PACHYCNEMINA Laporte, 1840

Original spelling and citation: Pachycnémides Laporte 1840: 155

Type genus: *Pachycnema* LePeletier and Serville, 1828: 375 (LePeletier and Serville 1828a)

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Synonym: Anisonychina Burmeister, 1844

Original spelling and citation: Anisonychidae Burmeister 1844: 40

Type genus: *Anisonyx* Latreille, 1807: 119

Subtribe HOPLIINA Latreille, 1829

Original spelling and citation: Hopliides Latreille 1829: 563

Type genus: *Hoplia* Illiger, 1803: 226

Remark: Madahopliini Lacroix 1997: 21 was used but the family-group name was not based on an available genus-group name and is therefore unavailable. *Madahoplia* Lacroix, 1998: 551 was not described until the following year.

Synonym: Gymnolomina Burmeister, 1844

Original spelling and citation: Gymnolomidae Burmeister 1844: 138

Type genus: *Gymnoloma* Dejean, 1833: 167

Synonym: Heterochelina Burmeister, 1844

Original spelling and citation: Heterochelidae Burmeister 1844: 86

Type genus: *Heterochelus* Burmeister, 1844: 87

Synonym: Lepisiina Burmeister, 1844

Original spelling and citation: Lepisiidae Burmeister 1844: 166

Type genus: *Lepisia* LePeletier and Serville, 1828: 374 (LePeletier and Serville 1828a)

Synonym: Scelophysina Péringuey, 1902

Original spelling and citation: Scelophysides Péringuey, 1902: 624

Type genus: *Scelophysa* Burmeister, 1844: 168

Tribe COLYMBOMORPHINI Blanchard, 1850

Original spelling and citation: Colymbomorphytae Blanchard 1850: 97

Type genus: *Colymbomorpha* Blanchard, 1850: 98

Tribe TANYPROCTINI Erichson 1847

Original spelling and citation: Tanyproctini Erichson 1847b: 653

Type genus: *Tanyproctus* Ménétries, 1832: 185

†**Tribe CRETOMELOLONTHINI Nikolajev, 1998**

Original spelling and citation: Cretomelolonthini Nikolajev 1998: 80

Type genus: *Cretomelolontha* Nikolajev, 1998: 81

Subfamily RUTELINAE MacLeay, 1819

Original spelling and citation: Rutelidae MacLeay 1819: 69

Type genus: *Rutela* Latreille, 1802: 151

Tribe RUTELINI MacLeay, 1819

Original spelling and citation: Rutelidae MacLeay 1819: 69

Type genus: *Rutela* Latreille, 1802: 151

Subtribe AREODINA Burmeister, 1844

Original spelling and citation: Areodidae Burmeister 1844: 423

Type genus: *Areoda* MacLeay, 1819: 158

Subtribe HETEROSTERNINA Bates, 1888

Original spelling and citation: Heterosterninae Bates 1888: 286

Type genus: *Heterosternus* Dupont, 1832: 10

Synonym: Macropnina Horn, 1866

Original spelling and citation: Macropni Horn 1866: 398

Type genus: *Macropnus* Horn, 1866: 397

Remark: Although Macropnina has priority over Heterosternina, the later is in prevailing usage and must be considered the valid using a reversal of precedence (Article 23.9). Macropnina has not been used as a valid name since it was first proposed. Therefore, I invoke Article 23.9.2 and provide evidence that Heterosternina has been used as a valid name in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years. In compliance with the requirements of the Code, the following list of qualified publications, in chronological order, used Heterosternina as a valid family-group name, which is sufficient evidence that it is in prevailing usage: Machatschke 1972; Morón 1979; Morón 1983; Morón, Villalobos, and Deloya 1985; Morón 1987; Sigwalt 1987; Jameson 1990; Morón 1990; Morón 1991; Morón and Howden 1992; Morón 1993; Morón 1994; Delgado and Blackaller-Bages 1997; Morón 1997; Morón and Blackaller 1997; Jameson 1998; Morón, Deloya, Ramírez-Campos, and Hernández-Rodríguez 1998; Soula 1998; Delgado, Pérez, and Blackaller 2000; Morón and Nogueira 2000; Morón-Ríos and Morón 2001; Curoe and Morón 2003; Smith and Morón 2003; Paucar-Cabrera 2005; and Reyes Novelo and Morón 2005.

Subtribe DIDREPANEPHORINA Ohaus, 1918

Original spelling and citation: Didrepanephorina Ohaus 1918: 14

Type genus: *Didrepanephorus* Wood-Mason, 1878: 423

Subtribe LASIOCALINA Ohaus, 1918

Original spelling and citation: Lasiocalina Ohaus 1918: 30

Type genus: *Lasiocala* Blanchard, 1851: 220

Subtribe PARASTASIINA Burmeister, 1844

Original spelling and citation: Parastasiidae Burmeister 1844: 368

Type genus: *Parastasia* Westwood, 1841: 204 (Westwood 1841b)

Subtribe ORYCTOMORPHINA Burmeister, 1847

Original spelling and citation: Oryctomorphidae Burmeister 1847: 28

Type genus: *Oryctomorphus* Guérin-Méneville, 1831: 3

Subtribe DESMONYCHINA Arrow, 1917

Original spelling and citation: Desmonychinae Arrow 1917: 359

Type genus: *Desmonyx* Arrow, 1907: 355

Subtribe RUTELINA MacLeay, 1819

Original spelling and citation: Rutelidae MacLeay 1819: 69

Type genus: *Rutela* Latreille, 1802: 151

Synonym: Chasmodiina Burmeister, 1844
 Original spelling and citation: Chasmodiidae Burmeister 1844: 333
 Type genus: *Chasmodia* MacLeay, 1819: 155

Synonym: Chrysophorina Burmeister, 1844
 Original spelling and citation: Chrysophoridae Burmeister 1844: 412
 Type genus: *Chrysophora* Dejean, 1821: 60

Synonym: Macraspidina Burmeister, 1844
 Original spelling and citation: Macraspididae Burmeister 1844: 343
 Type genus: *Macraspis* MacLeay, 1819: 156

Synonym: Pelidnotina Burmeister, 1844
 Original spelling and citation: Pelidnotidae Burmeister 1844: 388
 Type genus: *Pelidnota* MacLeay, 1819: 157

Synonym: Anticheirina Lacordaire, 1856
 Original spelling and citation: Antichirides Lacordaire 1856: 341
 Type genus: *Anticheira* Eschscholtz, 1818: 475

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Synonym: Plusiotina Bates, 1888
 Original spelling and citation: Plusiotina Bates 1888: 276
 Type genus: *Plusiotis* Burmeister, 1844: 417

Synonym: Fruhstorferiina Ohaus, 1918
 Original spelling and citation: Frusterferiina Ohaus 1918: 43
 Type genus: *Fruhstorferia* Kolbe, 1894

Tribe ANATISTINI Imhoff, 1856

Original spelling and citation: Anatistidae Imhoff, 1856: xi
 Type genus: *Anatista* Brême, 1844: 305

Remark: Although Anatistini has not been used in any publication since before 1900 and Spodochlamyini has been used recently as a valid tribe, a reversal of precedence (Article 23.9) cannot be used to preserve the latter. Spodochlamyini has not been used as a valid name in at least 25 works published by at least 10 authors in the immediately preceding 50 years. Therefore, Anatistini must be considered the valid name for this tribe.

Synonym: Spodochlamyini Ohaus, 1918: 166
 Original spelling and citation: Spodochlamyini Ohaus 1918: 166
 Type genus: *Spodochlamys* Burmeister, 1855: 528

Tribe ANOPLIGNATHINI MacLeay, 1819

Original spelling and citation: Anoplognathidae MacLeay 1819: 81
 Type genus: *Anoplognathus* Leach, 1815: 156 (Leach 1815*b*)

Subtribe ANOPLIGNATHINA MacLeay, 1819

Original spelling and citation: Anoplognathidae MacLeay 1819: 81
 Type genus: *Anoplognathus* Leach, 1815: 156 (Leach 1815*b*)

Subtribe SCHIZOZNATHINA Ohaus, 1918

Original spelling and citation: Schizognathina Ohaus 1918: 174
 Type genus: *Schizognathus* Fischer von Waldheim, 1823: 263

Subtribe PHALANGOGONIINA Ohaus, 1918

Original spelling and citation: Phalangogoniina Ohaus 1918: 176
 Type genus: *Phalangogonia* Burmeister, 1844: 451

Subtribe PLATYCOELIINA Burmeister, 1844

Original spelling and citation: Platycœliidae Burmeister 1844: 451

Type genus: *Platycœlia* Dejean, 1833: 154

Subtribe BRACHYSTERNINA Burmeister, 1844

Original spelling and citation: Brachysternidae Burmeister 1844: 455

Type genus: *Brachysternus* Guérin-Ménéville, 1831: 3

Tribe GENIATINI Burmeister, 1844

Original spelling and citation: Geniatidae Burmeister 1844: 478

Type genus: *Geniates* Kirby, 1819: 401 (Kirby 1819a)

Synonym: Leucothyreini Burmeister, 1844

Original spelling and citation: Leucothyreidae Burmeister 1844: 485

Type genus: *Leucothyreus* MacLeay, 1819: 145

Tribe ALVARENGIINI Frey, 1975

Original spelling and citation: Alvarengiini Frey 1975: 84

Type genus: *Alvarengius* Frey, 1975: 84

Remark: Pachylides (Lacordaire 1856: 394) was used for taxa within this tribe but this family-group name was not originally Latinized and has not been subsequently Latinized and accepted as valid, therefore it is unavailable. Additionally, this name is based on the genus *Pachylus* Burmeister, 1847, which is a junior homonym.

Tribe ANOMALINI Streubel, 1839

Original spelling and citation: Anomalidae Streubel 1839: 136

Type genus: *Anomala* Samouelle, 1819: 191

Remark: The type genus, *Anomala* Samouelle, 1819, is not a junior homonym of *Anomala* von Block, 1799. The von Block name was suppressed for the purposes of the Principle of Priority and the Principle of Homonymy (ICZN 1989).

Subtribe ANOMALINA Streubel, 1839

Original spelling and citation: Anomalidae Streubel 1839: 136

Type genus: *Anomala* Samouelle, 1819: 191

Synonym: Euchlorina Hope, 1839

Original spelling and citation: Euchloridae Hope 1839: 67

Type genus: *Euchlora* MacLeay, 1819: 147

Remark: Although Euchlorina has priority over Anomalina, the later is in prevailing usage and must be considered the valid using a reversal of precedence (Article 23.9). Euchlorina has not been used as a valid name since it was first proposed. Therefore, I invoke Article 23.9.2 and provide evidence that Anomalina has been used as a valid name in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years. In compliance with the requirements of the Code, the following list of qualified publications, in chronological order, used Anomalina (or this stem with any other family-group suffix) as a valid family-group name, which is sufficient evidence that it is in prevailing usage: Ritcher 1966; Howden and Hardy 1971; Machatschke 1971; Machatschke 1972; Machatschke 1973a; Machatschke 1973b; Woodruff 1973; Potts 1974; Potts 1977a; Potts 1977b; Jameson 1990; Ratcliffe 1991; Bader 1992; Cassis and Weir 1992; Morón 1997; Browne and Scholtz 1998; Jameson 1998; Harpootlian 2001; Micó, Verdú, and Galante 2001; Morón and Howden 2001; Ratcliffe, Jameson, and Smith 2002; Jameson, Paucar-Cabrera, and Solís 2003; Micó, Morón, and Galante 2003; Jameson and Hawkins 2005; Paucar-Cabrera 2005; Smith and Evans 2005; and Micó, Gómez, and Galante 2006.

Synonym: Dilophochilina Ohaus, 1918

Original spelling and citation: Dilophochilina Ohaus 1918: 133

Type genus: *Dilophochila* Bates, 1888: 261

Subtribe POPILLIINA Ohaus, 1918

Original spelling and citation: Popilliina Ohaus 1918: 133

Type genus: *Popillia* Dejean, 1821: 60

Subtribe ISOPLIINA Péringuey, 1902

Original spelling and citation: Isopliini Péringuey 1902: 564

Type genus: *Isoplia* Burmeister, 1855: 487

Subtribe ANISOPLIINA Burmeister, 1844

Original spelling and citation: Anisopliadae Burmeister 1844: 208

Type genus: *Anisoplia* Schönherr, 1817: 186

Subtribe LEPTHOPLIINA Potts, 1974

Original spelling and citation: Lepthopliini Potts 1974: 152

Type genus: *Leptohoplia* Saylor, 1935: 132

Remark: Potts (1974) inadvertently misspelled Leptohopliini when he erected the family-group name.

Tribe ADORETINI Burmeister, 1844

Original spelling and citation: Adoretidae Burmeister 1844: 466

Type genus: *Adoretus* Laporte, 1840: 142

Subtribe ADORRHINYPTIINA Arrow, 1917

Original spelling and citation: Adorrhinyptiini Arrow 1917: 273

Type genus: *Adorrhinyptia* Arrow, 1917: 273

Subtribe ADORETINA Burmeister, 1844

Original spelling and citation: Adoretidae Burmeister 1844: 466

Type genus: *Adoretus* Laporte, 1840: 142

Synonym: Adorodociina Ohaus, 1912

Original spelling and citation: Adorodociina Ohaus 1912a: 151

Type genus: *Adorodocia* Brenske, 1893: 1

Synonym: Adoroleptina Ohaus, 1912

Original spelling and citation: Adoroleptina Ohaus 1912a: 151

Type genus: *Adoroleptus* Brenske, 1893: 1

Synonym: Pseudadoretina Ohaus, 1912

Original spelling and citation: Pseudadoretina Ohaus 1912a: 151

Type genus: *Pseudadoretus* Semenov-Tian-Shanskij, 1889: 202

Synonym: Scaphorhinadoretina Ohaus, 1912

Original spelling and citation: Scaphorhinadoretina Ohaus 1912a: 151

Type genus: *Scaphorhinadoretus* Ohaus, 1912: 426 (Ohaus 1912a)

Subtribe PACHYRHINADORETINA Ohaus, 1912

Original spelling and citation: Pachyrhinadoretina Ohaus 1912a: 151

Type genus: *Pachyrhinadoretus* Ohaus, 1912: 509 (Ohaus 1912a)

Subtribe TRIGONOSTOMINA Ohaus, 1912

Original spelling and citation: Trigonostomina Ohaus 1912a: 151

Type genus: *Trigonostomum* Burmeister, 1844: 466

Subtribe PRODORETINA Ohaus, 1912

Original spelling and citation: ProdoRETINA Ohaus 1912a: 151

Type genus: *ProdoRETUS* Brenske, 1893: 1

Subfamily DYNASTINAE MacLeay, 1819

Original spelling and citation: Dynastidae MacLeay 1819: 64

Type genus: *Dynastes* MacLeay, 1819: 22

Tribe HEXODONTINI Lacordaire, 1856

Original spelling and citation: Hexodontides Lacordaire 1856: 391

Type genus: *Hexodon* Olivier, 1789: 1

Remark: Lacordaire (1856: 391) and Imhoff (1856: 17) both used Hexodontides in the same year and the Imhoff (1856) paper refers to the Lacordaire (1856) paper (numerous times). This is internal evidence in Imhoff (1856) that the Lacordaire (1856) paper was published first so Lacordaire should be credited with authorship of this family-group name. Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Tribe CYCLOCEPHALINI Laporte, 1840

Original spelling and citation: Cyclocephalites Laporte 1840: 124

Type genus: *Cyclocephala* Dejean, 1821: 57

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Synonym: Chalepini Burmeister, 1847

Original spelling and citation: Chalepidae Burmeister 1847: 71

Type genus: *Chalepus* MacLeay 1819: 149

Synonym: Peltonotini Arrow, 1917

Original spelling and citation: Peltonotini Arrow 1917: 27

Type genus: *Peltonotus* Burmeister, 1847: 75

Synonym: Acrobolbiini Ohaus, 1918

Original spelling and citation: Acrobolbiina Ohaus 1918: 13

Type genus: *Acrobolbia* Ohaus, 1912: 316 (Ohaus 1912b)

Tribe DYNASTINI MacLeay, 1819

Original spelling and citation: Dynastidae MacLeay 1819: 64

Type genus: *Dynastes* MacLeay, 1819: 22

Synonym: Xylotrupini Hope, 1845

Original spelling and citation: Xylotrupidae Hope 1845: 7

Type genus: *Xylotrupes* Hope, 1837: ix

Synonym: Megasomatidae Imhoff, 1856

Original spelling and citation: Megasomidae Imhoff 1856: 19

Type genus: *Megasoma* Kirby, 1825: 566

Tribe ORYCTINI Mulsant, 1842

Original spelling and citation: Oryctésaires Mulsant 1842: 372

Type genus: *Oryctes* Illiger, 1798: 11 (Kugelann and Illiger 1798)

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Synonym: Megacerini Burmeister, 1847

Original spelling and citation: Megaceridae Burmeister 1847: 212

Type genus: *Megaceras* Hope, 1837: 82

Synonym: Strategini Burmeister, 1847

Original spelling and citation: Strategidae Burmeister 1847: 87

Type genus: *Strategus* Kirby, 1828: 644 (Kirby and Spence 1828)

Tribe ORYCTODERINI Endrödi, 1966

Original spelling and citation: Oryctoderini Endrödi 1966: 25

Type genus: *Oryctoderus* Boisduval, 1835: 160

Tribe PENTODONTINI Mulsant, 1842

Original spelling and citation: Pentodonaires Mulsant 1842: 372

Type genus: *Pentodon* Hope, 1837: 30

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Subtribe PENTODONTINA Mulsant, 1842

Original spelling and citation: Pentodonaires Mulsant 1842: 372

Type genus: *Pentodon* Hope, 1837: 30

Synonym: Bothynina Burmeister, 1847

Original spelling and citation: Bothynidae Burmeister 1847: 90

Type genus: *Bothynus* Hope, 1837: 30

Synonym: Pimelopodina Burmeister, 1847

Original spelling and citation: Pimelopodea Burmeister 1847: 172

Type genus: *Pimelopus* Erichson, 1842: 159

Synonym: Podalgina Burmeister, 1847

Original spelling and citation: Podalgidae Burmeister 1847: 90

Type genus: *Podalgus* Burmeister, 1847: 117

Synonym: Metanastina Carne, 1957

Original spelling and citation: Metanastini Carne 1957: 32

Type genus: *Metanastes* Arrow, 1911: 166 (Arrow 1911a)

Remark: When Carne (1957) erected this family-group name, he placed the genus *Pentodon* in it. Since *Pentodon* is the type genus of Pentodontina, Metanastini is unnecessary and should be considered a synonym of Pentodontina.

Subtribe CHEIROPLATINA Carne, 1957

Original spelling and citation: Cheiropatina Carne 1957: 61

Type genus: *Cheiropatys* Hope, 1837: 29

Subtribe DIPELICINA Carne, 1957

Original spelling and citation: Dipelicina Carne 1957: 117

Type genus: *Dipelicus* Hope, 1843: 62

Subtribe PSEUDORYCTINA Carne, 1957

Original spelling and citation: Pseudoryctina Carne 1957: 121

Type genus: *Pseudoryctes* Sharp, 1873: 267

Tribe AGAOCEPHALINI Burmeister, 1847

Original spelling and citation: Agaocephalidae Burmeister 1847: 280

Type genus: *Agaocephala* LePeletier and Serville, 1828: 570 (LePeletier and Serville, 1828a)

Remark: The original spelling of this genus is *Agacephala*, but it was later spelled *Agaocephala* by Mannerheim (1829: 56) and almost all authors since (although a few recent authors have used the original spelling). Since the incorrect subsequent spelling is in prevailing usage, it is now considered the correct original spelling of the name under Article 33.3.1.

Tribe PHILEURINI Burmeister, 1847

Original spelling and citation: Phileuridae Burmeister 1847: 138

Type genus: *Phileurus* Latreille, 1807: 103

Subtribe PHILEURINA Burmeister, 1847

Original spelling and citation: Phileuridae Burmeister 1847: 138

Type genus: *Phileurus* Latreille, 1807: 103

Subtribe CRYPTODINA Burmeister and Schaum, 1840

Original spelling and citation: Cryptodinae Burmeister and Schaum 1840: 360

Type genus: *Cryptodus* MacLeay, 1819: 138

Subfamily CETONINAE Leach, 1815

Original spelling and citation: Cetonida Leach 1815a: 99

Type genus: *Cetonia* Fabricius, 1775: 42

Remark: Although Cetoninae has priority over Melolonthinae, the later is in prevailing usage at the family level and must not be displaced by the older name under Article 35.5. This is relevant for authors who consider Melolonthidae to be a family containing the subfamily Cetoninae.

Tribe VALGINI Mulsant, 1842

Original spelling and citation: Valguaires Mulsant 1842: 519

Type genus: *Valgus* Scriba, 1790: 66

Remark: Valguaires Mulsant (1842: 718) and Valgidae Burmeister (1842: 718) were both used in the same year. Mulsant (1842) was published in August 1842 (Sherborn 1922) and the introduction to Burmeister (1842) is dated September 1842. Therefore, Mulsant (1842) was published first and should be credited with authorship of this family-group name. Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Subtribe MICROVALGINA Kolbe, 1904

Original spelling and citation: Microvalginae Kolbe, 1904: 10

Type genus: *Microvalgus* Kraatz, 1883: 374

Subtribe VALGINA Mulsant, 1842

Original spelling and citation: Valguaires Mulsant 1842: 519

Type genus: *Valgus* Scriba, 1790: 66

Synonym: Acanthovalgina Kolbe, 1904

Original spelling and citation: Acanthovalginae Kolbe 1904: 11

Type genus: *Acanthovalgus* Kraatz, 1895: 444

Synonym: Cosmovalgina Kolbe, 1904

Original spelling and citation: Cosmovalginae Kolbe 1904: 11

Type genus: *Cosmovalgus* Kolbe, 1897: 204

Synonym: Dasyvalgina Kolbe, 1904

Original spelling and citation: Dasyvalginae Kolbe 1904: 11

Type genus: *Dasyvalgus* Kolbe, 1904: 34

Synonym: Ischnovalgina Kolbe, 1904

Original spelling and citation: Ischnovalginae Kolbe 1904: 9

Type genus: *Ischnovalgus* Kolbe, 1897: 190

Synonym: Sphinctovalgina Kolbe, 1904

Original spelling and citation: Sphinctovalginae Kolbe 1904: 9

Type genus: *Sphinctovalgus* Kolbe, 1904: 51

Tribe TRICHIINI Fleming, 1821

Original spelling and citation: Trichiadae Fleming 1821: 50

Type genus: *Trichius* Fabricius, 1775: 40

Remark: Trichiinae Lozek, 1956 (Mollusca: Gastropoda) is a junior homonym of this family-group name. A recent case to the International Commission on Zoological Nomenclature to emend the spelling of the gastropod to remove it from homonymy was not approved (ICZN 2004).

Subtribe CRYPTODONTINA Lacordaire, 1856

Original spelling and citation: Cryptodontides Lacordaire 1856: 462

Type genus: *Cryptodontes* Burmeister, 1847: 292

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Subtribe PLATYGENIINA Krikken, 1984

Original spelling and citation: *Platygeniini* Krikken 1984: 18

Type genus: *Platygenia* MacLeay, 1819: 151

Subtribe TRICHIINA Fleming, 1821

Original spelling and citation: *Trichiadae* Fleming 1821: 50

Type genus: *Trichius* Fabricius, 1775: 40

Synonym: *Elpidina* Péringuey, 1907

Original spelling and citation: *Elpidides* Péringuey, 1907: 314

Type genus: *Elpidus* Péringuey, 1907: 318

Synonym: *Myodermina* Péringuey, 1907

Original spelling and citation: *Myodermini* Péringuey 1907: 294

Type genus: *Myodermun* Burmeister and Schaum, 1840: 396

Subtribe INCAINA Burmeister, 1842

Original spelling and citation: *Incadae* Burmeister 1842: 704

Type genus: *Inca* LePeletier and Serville, 1828: 380 (LePeletier and Serville, 1828a)

Subtribe OSMODERMATINA Schenkling, 1922

Original spelling and citation: *Osmodermini* Schenkling 1922: 3

Type genus: *Osmoderma* LePeletier and Serville, 1828: 702 (LePeletier and Serville, 1828b)

Tribe CREMASTOCHEILINI Burmeister and Schaum, 1841

Original spelling and citation: *Cremastochilidae* Burmeister and Schaum 1841: 243

Type genus: *Cremastocheilus* Knoch, 1801: 115

Subtribe SPILOPHORINA Krikken, 1984

Original spelling and citation: *Spilophorina* Krikken 1984: 25

Type genus: *Spilophorus* Schaum, 1848: 61*

Subtribe MACROMINA Burmeister and Schaum, 1840

Original spelling and citation: *Macrominae* Burmeister and Schaum 1840: 360

Type genus: *Macroma* Gory and Percheron, 1833: 35

Subtribe TROGODINA Krikken, 1984

Original spelling and citation: *Trogodina* Krikken 1984: 27

Type genus: *Trogodes* Westwood, 1874: 30

Subtribe NYASSININA Krikken, 1984

Original spelling and citation: *Nyassinina* Krikken 1984: 25

Type genus: *Nyassinus* Westwood, 1879: 199

Subtribe HETEROGENIINA Krikken, 1984

Original spelling and citation: *Heterogeniina* Krikken 1984: 25

Type genus: *Heterogenius* Moser, 1911: 143

Subtribe ASPILINA Krikken, 1984

Original spelling and citation: *Aspilina* Krikken 1984: 25

Type genus: *Aspilus* Schaum, 1848: 61*

Subtribe COENOCHELINA Burmeister, 1842

Original spelling and citation: *Coenochilidae* Burmeister 1842: 148

Type genus: *Coenochilus* Schaum, 1841: 268 (in Burmeister and Schaum 1841)

Subtribe CYMOPHORINA Krikken, 1984

Original spelling and citation: Cymophorina Krikken 1984: 23

Type genus: *Cymophorus* Kirby, 1827: 153

Subtribe TRICHOPLINA Krikken, 1984

Original spelling and citation: Trichoplinea Krikken 1984: 23

Type genus: *Trichoplus* Burmeister, 1842: 660

Subtribe OPLOSTOMATINA Krikken, 1984

Original spelling and citation: Oplostomina Krikken 1984: 23

Type genus: *Oplostomus* MacLeay, 1838: 20

Subtribe TELOCHILINA Krikken, 1984

Original spelling and citation: Telochilina Krikken 1984: 21

Type genus: *Telochilus* Krikken, 1975: 21

Subtribe GENUCHINA Krikken, 1984

Original spelling and citation: Genuchina Krikken 1984: 21

Type genus: *Genuchus* Kirby, 1825: 569

Subtribe PILINURGINA Krikken, 1984

Original spelling and citation: Pulinurgina Krikken 1984: 25

Type genus: *Pilinurgus* Burmeister, 1842: 658

Subtribe GOLIATHOPSIDINA Krikken, 1984

Original spelling and citation: Goliathopsidina Krikken 1984: 25

Type genus: *Goliathopsis* Janson, 1881: 609

Subtribe CREMASTOCHEILINA Burmeister and Schaum, 1841

Original spelling and citation: Cremastochilidae Burmeister and Schaum 1841: 243

Type genus: *Cremastocheilus* Knoch, 1801: 115

Subtribe LISSOGENIINA Krikken, 1984

Original spelling and citation: Lissogeniina Krikken 1984: 25

Type genus: *Lissogenius* Schaum, 1845: 420

Tribe XIPHOSCELIDINI Burmeister, 1842

Original spelling and citation: Xiphoscelidae Burmeister 1842: 613

Type genus: *Xiphoscelis* Burmeister, 1842: 613

Tribe STENOTARSINI Kraatz, 1880

Original spelling and citation: Stenotarsiden Kraatz 1880b: 182

Type genus: *Stenotarsia* Burmeister, 1842: 590

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Subtribe COPTOMIINA Schenkling, 1921

Original spelling and citation: Coptomiina Schenkling 1921: 147

Type genus: *Coptomia* Burmeister, 1842: 549

Subtribe ANOCHILIINA Krikken, 1984

Original spelling and citation: Anochiliina Krikken 1984: 31

Type genus: *Anochilia* Burmeister, 1842: 558

Remark: Pouillaude (1916) used Anochiliens but this name was published after 1900 and not Latinized, therefore it is unavailable from this publication.

Subtribe PANTOLIINA Krikken, 1984

Original spelling and citation: Pantoliina Krikken 1984: 33

Type genus: *Pantolia* Burmeister, 1842: 567

Remark: Pouillaude (1916) used Pantoliens but this name was published after 1900 and not Latinized, therefore it is unavailable from this publication.

Subtribe STENOTARSINA Kraatz, 1880

Original spelling and citation: Stenotarsiden Kraatz 1880*b*: 182

Type genus: *Stenotarsia* Burmeister, 1842: 590

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Subtribe EUCHROEINA Paulian and Descarpentries, 1982

Original spelling and citation: Euchroeina Paulian and Descarpentries 1982: 5

Type genus: *Euchroea* Burmeister, 1842: 571

Remark: Pouillaude (1916) used Euchrœens but this name was published after 1900 and not Latinized, therefore it is unavailable from this publication.

Subtribe DORYSCELINA Krikken, 1984

Original spelling and citation: Doryscelina Krikken 1984: 33

Type genus: *Doryscelis* Dejean, 1836: 189

Remark: Pouillaude (1916) used Dorysceliens but this name was published after 1900 and not Latinized, therefore it is unavailable from this publication.

Subtribe PARACHILIINA Krikken, 1984

Original spelling and citation: Parachiliina Krikken 1984: 33

Type genus: *Parachilia* Burmeister, 1842: 556

Subtribe HETEROPHANINA Schoch, 1894

Original spelling and citation: Heterophanae Schoch 1894: 173

Type genus: *Heterophana* Burmeister, 1842: 602

Subtribe CHROMOPTILIINA Krikken, 1984

Original spelling and citation: Chromoptiliina Krikken 1984: 31

Type genus: *Chromoptilia* Westwood, 1842: 128 (Westwood 1842*d*)

Subtribe HETEROSOMATINA Krikken, 1984

Original spelling and citation: Heterosomatina Krikken 1984: 29

Type genus: *Heterosoma* Schaum, 1845: 390

Tribe SCHIZORHININI Burmeister, 1842

Original spelling and citation: Schizorrhinidae Burmeister 1842: 530

Type genus: *Schizorhina* Kirby, 1825: 570

Subtribe SCHIZORHININA Burmeister, 1842

Original spelling and citation: Schizorrhinidae Burmeister 1842: 530

Type genus: *Schizorhina* Kirby, 1825: 570

Synonym: Diaphoniina Kraatz, 1880

Original spelling and citation: Diaphoniadae Kraatz 1880*b*: 195

Type genus: *Diaphonia* Newman, 1840: 366

Synonym: Eupoecilina Kraatz, 1880

Original spelling and citation: Eupoecilidae Kraatz 1880*b*: 188

Type genus: *Eupoecila* Burmeister, 1842: 540

Synonym: Hemipharina Kraatz, 1880

Original spelling and citation: Hemipharidae Kraatz 1880*b*: 182

Type genus: *Hemipharis* Burmeister, 1842: 531

Subtribe LOMAPTERINA Burmeister, 1842

Original spelling and citation: Lomapteridae Burmeister 1842: 310

Type genus: *Lomaptera* Gory and Percheron, 1833: 43

Synonym: Macronotina Burmeister, 1842

Original spelling and citation: Macronotidae Burmeister 1842: 318

Type genus: *Macronota* Hoffmannsegg, 1817: 15

Tribe GOLIATHINI Griffith and Pidgeon, 1832

Original spelling and citation: Goliathidae Griffith and Pidgeon 1832: 492

Type genus: *Goliathus* Lamarck, 1801: 209

Subtribe GOLIATHINA Griffith and Pidgeon, 1832

Original spelling and citation: Goliathidae Griffith and Pidgeon 1832: 492

Type genus: *Goliathus* Lamarck, 1801: 209

Synonym: Hypselogeniina Schoch, 1894

Original spelling and citation: Hypselogeniinae Schoch 1894: 169

Type genus: *Hypselogenia* Burmeister, 1840: [1]

Subtribe DICRONOCEPHALINA Krikken, 1984

Original spelling and citation: Dicronocephalina Krikken 1984: 37

Type genus: *Dicronocephalus* Hope, 1831: 24

Remark: The original spelling of this genus is *Dicronocephalus*, but it was later spelled *Dicronocephalus* by Hope (1837: 61), Westwood (1842c: 116), and most authors since (although a few recent authors have used the original spelling). Since the incorrect subsequent spelling is in prevailing usage, it is now considered the correct original spelling of the name under Article 33.3.1. The original spelling placed the name in homonymy with *Dicronocephalus* Hahn, 1826 (Hemiptera) but the adaptation of the subsequent spelling as the correct spelling avoids this homonymy problem.

Subtribe ICHNESTOMATINA Burmeister, 1842

Original spelling and citation: Ischnostomidae Burmeister 1842: 600

Type genus: *Ichnestoma* Gory and Percheron, 1833: 41

Subtribe CORYPHOCERINA Burmeister, 1842

Original spelling and citation: Coryphoceridae Burmeister 1842: 215

Type genus: *Coryphocera* Burmeister, 1842: 220

Synonym: Heterorhinina Kraatz, 1880

Original spelling and citation: Heterorrhinidae Kraatz 1880a: 21

Type genus: *Heterorhina* Westwood, 1842: 132 (Westwood 1842e)

Remark: Wallace (1868: 520) used "*Heterorhinae*" but from the context of the paper, it is clearly a *lapsus calami* for the genus *Heterorhina*. He did not intend to erect a new family-group name.

Synonym: Ceratorhinina Kraatz, 1880

Original spelling and citation: Ceratorrhinidae Kraatz 1880a: 18

Type genus: *Ceratorhina* Westwood, 1843: 170

Synonym: Bothrorrhina Schoch, 1894

Original spelling and citation: Bothrorrhinae Schoch 1894: 173

Type genus: *Bothrorrhina* Burmeister, 1842: 200

Synonym: Gnathocerina Schoch, 1894

Original spelling and citation: Gnathoceridae Schoch 1894: 170

Type genus: *Gnathocera* Kirby, 1825: 571

Synonym: Ischnoscelina Schoch, 1894

Original spelling and citation: Ischnosceli Schoch 1894: 170

Type genus: *Ischnoscelis* Burmeister, 1842: 179

Synonym: Coelorrhina Schoch, 1895

Original spelling and citation: Coelorrhinae Schoch 1895: III

Type genus: *Coelorrhina* Hope, 1841: 302

Remark: The original spelling of this genus is *Caelorrhina*, but it was later spelled *Coelorrhina* by Burmeister (1842: 206) and most authors since. Because the incorrect subsequent spelling is in prevailing usage, it is now considered the correct original spelling of the name under Article 33.3.1.

Synonym: Rhomborhinina Schoch, 1894
 Original spelling and citation: Rhomborrhinae Schoch 1894: 171
 Type genus: *Rhomborhina* Hope, 1837: 120

Synonym: Tmesorrhina Schoch, 1894
 Original spelling and citation: Tmesorrhinae Schoch 1894: 170
 Type genus: *Tmesorrhina* Westwood, 1842: 71 (Westwood 1842*b*)

Synonym: Mecynorhinina Schenkling, 1921
 Original spelling and citation: Mecynorrhina Schenkling 1921: 15
 Type genus: *Mecynorhina* Hope, 1837: 119

Synonym: Stephanorrhina Schenkling, 1921
 Original spelling and citation: Stephanorrhina Schenkling 1921: 35
 Type genus: *Stephanorrhina* Burmeister, 1842: 208

Tribe CETONINI Leach, 1815

Original spelling and citation: Cetonida Leach 1815*a*: 99
 Type genus: *Cetonia* Fabricius, 1775: 42

Subtribe CETONINA Leach, 1815

Original spelling and citation: Cetonida Leach 1815*a*: 99
 Type genus: *Cetonia* Fabricius, 1775: 42

Synonym: Elaphinina Schoch, 1894
 Original spelling and citation: Elaphinina Schoch 1894: 175
 Type genus: *Elaphinis* Burmeister, 1842: 595

Synonym: Glycyphanina Schoch, 1894
 Original spelling and citation: Glycyphanina Schoch 1894: 175
 Type genus: *Glycyphana* Burmeister, 1842: 345

Synonym: Pachnodina Péringuey, 1907
 Original spelling and citation: Pachnodii Péringuey 1907: 371
 Type genus: *Pachnoda* Burmeister, 1842: 511

Synonym: Tephraeina Schenkling, 1921
 Original spelling and citation: Tephraeides Schenkling, 1921: 313
 Type genus: *Tephraea* Burmeister, 1842: 419

Subtribe EUPHORIA Schoch, 1894

Original spelling and citation: Euphoriae Schoch 1894: 175
 Type genus: *Euphoria* Burmeister, 1842: 370

Subtribe LEUCOCELINA Kraatz, 1882

Original spelling and citation: Leucoceliden Kraatz 1882*b*: 65
 Type genus: *Leucocelis* Burmeister, 1842: 421

Remark: Although this family-group name was not originally proposed in a Latinized form, it has subsequently been Latinized by numerous authors and should be considered available under Article 11.7.2.

Tribe GYMNETINI Kirby, 1827

Original spelling and citation: Gymnetidae Kirby 1827: 150
 Type genus: *Gymnetis* MacLeay, 1819: 152

Subtribe GYMNETINA Kirby, 1827

Original spelling and citation: Gymnetidae Kirby 1827: 150
 Type genus: *Gymnetis* MacLeay, 1819: 152

Synonym: Clinteriina Kraatz, 1882
 Original spelling and citation: Clinteriidae Kraatz 1882*a*: 49
 Type genus: *Clinteria* Burmeister, 1842: 299

Synonym: *Stethodesmatina* Schoch, 1894
 Original spelling and citation: *Stethodesmae* Schoch 1894: 172
 Type genus: *Stethodesma* Bainbridge, 1841: 482

Subtribe BLAESINA Schoch, 1895

Original spelling and citation: *Blaesiina* Schoch, 1895: III
 Type genus: *Blaesia* Burmeister, 1842: 615

Tribe DIPLOGNATHINI Burmeister, 1842

Original spelling and citation: *Diplognathidae* Burmeister 1842: 617
 Type genus: *Diplognatha* Gory and Percheron, 1833: 31
 Remark: The type genus was spelled both *Diplognatha* and *Diplognata* in Gory and Percheron (1833). The former spelling was used multiple times and is obviously the intended spelling of the name. *Diplognatha* has also been adapted by all subsequent authors and should be considered the correct spelling.

Synonym: *Porphyronotini* Péringuey, 1907
 Original spelling and citation: *Porphyronotii* Péringuey 1907: 371
 Type genus: *Porphyronota* Burmeister, 1842: 622

Tribe PHAEDIMINI Schoch, 1894

Original spelling and citation: *Phaedimi* Schoch 1894: 169
 Type genus: *Phaedimus* Westwood, 1841: 5 (Westwood 1841*a*)

Tribe TAENIODERINI Mikšić, 1976

Original spelling and citation: *Taenioderina* Mikšić 1976: 29
 Type genus: *Taeniodera* Burmeister, 1842: 325

Subtribe TAENIODERINA Mikšić, 1976

Original spelling and citation: *Taenioderina* Mikšić 1976: 29
 Type genus: *Taeniodera* Burmeister, 1842: 325

Subtribe CHALCOTHEINA Mikšić, 1976

Original spelling and citation: *Chalcotheina* Mikšić 1976: 29
 Type genus: *Chalcothea* Burmeister, 1842: 319

Acknowledgments

I thank Luca Bartolozzi (Museo di Storia Naturale dell'Università di Firenze), Aleš Bezděk (Institute of Entomology, Academy of Sciences of the Czech Republic), Art Evans (Virginia Museum of Natural History), Phil Harpootlian (Simpsonville, South Carolina), Dave Hawks (University of California-Riverside), Mary Liz Jameson (University of Nebraska), Frank Krell (The Natural History Museum, London), Al Newton (Field Museum of Natural History, Chicago), Matt Paulsen (University of Nebraska), Brett Ratcliffe (University of Nebraska), and Fernando Vaz-de-Mello (Instituto de Ecología, Xalapa, Mexico) for critical reviews, nomenclatural advice, and / or taxonomic insights into various scarabs groups. My acknowledgment of those listed above does not necessarily indicate that they agree with the classification or nomenclatural decisions within. I greatly appreciate assistance by the following people in finding old and obscure literature: Aleš Bezděk ((Institute of Entomology, Academy of Sciences of the Czech Republic), Pat Bouchard (Canadian National Collection of Insects), François Génier (Canadian Museum of Nature), Henry Howden (Canadian Museum of Nature), Frank Krell (The Natural History Museum, London), Al Newton (Field Museum of Natural History, Chicago), Matt Paulsen (University of Nebraska), Brett Ratcliffe (University of Nebraska), Paul Robbins (Cornell University), Aleš Smetana (Canadian National Collection of Insects), Fernando Vaz-de-Mello (Instituto de Ecología, Xalapa, Mexico), Mike Wayne (Canadian Museum of Nature Library), and Jason Weintraub (Academy of Natural Sciences, Philadelphia). I would also like to thank Neal Evenhuis (Bishop Museum, Honolulu) for graciously answering my numerous, pesky questions about the publication dates of old and / or obscure literature. This publication was supported, in part, by an NSF/BS&I grant (DEB-0342189) to A. B. T.

Smith and F. C. Ocampo, an NSF/PEET grant (DEB-0118669) to M. L. Jameson and B. C. Ratcliffe, and an NSERC-PDF award to A. B. T. Smith.

References Cited

- Ádám, L. 2003.** Faunisztikai adatok a Kárpát-medencéből (Coleoptera: Scarabaeoidea). *Folia Historico Naturalia Musei Matraensis* 27:101–136.
- Agassiz, L. 1847.** *Nomenclatoris Zoologici Index Universalis, Continens Nomina Systematica Classium, Ordinum, Familiarum et Generum Animalium Omnium, Tam Viventium quam Fossilium, Secundum Ordinem Alfabeticum Unicum Disposita, Adjectis Homonymiis Plantarum, nec non Variis Adnotationibus et Emendationibus.* Nomenclator Zoologicus, volume 12. Jent et Gassmann, Solothurn. [Dated 1846.]
- Allsopp, P. G. 1981.** Revision of the Australian species of *Phaenognatha* Hope (Coleoptera: Scarabaeidae: Aclopininae). *Journal of the Australian Entomological Society* 20:185–195.
- Alonso-Zarazaga, M. A., and C. H. C. Lyal. 1999.** *A World Catalogue of Families and Genera of Curculionoidea (Insecta: Coleoptera) (Excepting Scolytidae and Platypodidae).* Entomopraxis, Barcelona.
- Arrow, G. J. 1904.** Sound-production in the Lamellicorn beetles. *Transactions of the Entomological Society of London* 52:709–750.
- Arrow, G. J. 1905.** On some oriental aphodiid Coleoptera of the *Rhyparus* group, with description of a new genus. *Annals and Magazine of Natural History (series 7)* 15:534–540.
- Arrow, G. J. 1907.** Some new species and genera of Lamellicorn Coleoptera from the Indian Empire. *Annals and Magazine of Natural History (series 7)* 19:347–359.
- Arrow, G. J. 1911a.** Notes on the coleopterous subfamily Dynastinae, with descriptions of new genera and species. *Annals and Magazine of Natural History (series 8)* 8:151–176, plates 4–5.
- Arrow, G. J. 1911b.** Upon the Dynamopinae, a new subfamily of Lamellicorn beetle. *Annals and Magazine of Natural History (series 8)* 8:610–612.
- Arrow, G. J. 1917.** *The Fauna of British India, Including Ceylon and Burma. Coleoptera Lamellicornia Part II (Rutelinae, Desmonycinae, and Euchirinae).* Taylor and Francis, London, U.K.
- Arrow, G. J. 1931.** *The Fauna of British India, Including Ceylon and Burma. Coleoptera Lamellicornia Part III (Coprinae).* Taylor and Francis, London.
- Arrow, G. J. 1940.** A nomenclatural note (Coleoptera). *Proceedings of the Royal Entomological Society of London. Series B. Taxonomy* 9:16.
- Arrow, G. J. 1950.** *The Fauna of India including Pakistan, Ceylon, Burma and Malaya. Coleoptera Lamellicornia; Lucanidae and Passalidae,* volume 4. Taylor and Francis, London.
- Audouin, M. V., and M. A. Brullé. 1837.** *Histoire Naturelle des Insectes,* volume 6. Coléoptères 3. F. D. Pillot, Paris, France.
- Bader, A. M. 1992.** A review of the North and Central American *Strigoderma* (Coleoptera: Scarabaeidae). *Transactions of the American Entomological Society* 118:269–355.
- Bainbridge, W. 1841.** Descriptions of new species of Cetoniadae in the collection of the Rev. F. W. Hope, with some observations on the genus *Osmoderma*. *Annals and Magazine of Natural History series 1* volume 6:481–482.
- Balthasar, V. 1964.** *Monographie der Scarabaeidae und Aphodiidae der palaearktischen und orientalischen Region. Coleoptera: Lamellicornia.* Band 3. Tschechoslowakischen Akademie der Wissenschaften, Prague, Czechoslovakia.
- Baraud, J. 1979.** Coléoptères Scarabaeoidea de l'Afrique du Nord, 3 e note: les Pachydemiini. *Annales de la Société Entomologique de France (N. S.)* 15:247–310.
- Baraud, J. 1982.** Nouveaux Pachydemiini et Onthophagini de la faune paléarctique. *Nouvelle Revue d'Entomologie* 12:235–240.
- Baraud, J. 1985.** Révision des Pachydemiini des îles Canaries (Coleoptera, Melolonthidae). *Nouvelle Revue d'Entomologie (N. S.)* 2:129–140.

- Baraud, J. 1991.** *Otoclinus loebli*, nouvelle espèce d'Iran (Coleoptera, Melolonthidae, Pachydeminae). Archives des Sciences 44:289–291.
- Baraud, J., and T. Branco. 1991.** Scission du genre *Pachydemocera* Reitter, 1902 (Coleoptera, Melolonthidae, Pachydeminae). Bulletin de la Société Entomologique de France 96:175–181.
- Basilevsky, P. 1952.** Un Lucanide nouveau du Ruanda. Revue de Zoologie et de Botanique Africaines 46:35–40.
- Bates, H. W. 1888.** Insecta. Coleoptera. Rutelidae [pp. 216–296]. In: *Biologia Centrali-Americana*, volume 2, part 2. F. D. Godman and O. Salvin (eds.).
- Benderitter, E. 1920.** Description d'un genre et de deux espèces nouvelles d'Ochodaeinae. Annales de la Société Entomologique de Belgique 60:112–113.
- Benesh, B. 1955a.** Some notes on Neotropical stagbeetles (Coleoptera: Lucanidae). Entomological News 66:97–104.
- Benesh, B. 1955b.** Some further notes on the stagbeetles, with especial reference to Figulinae (Coleoptera: Lucanidae). Transactions of the American Entomological Society 81:59–76.
- Benesh, B. 1960.** Familia Lucanidae. Coleopterorum Catalogus Supplementa 8:1–178.
- Berthold, A. A. 1827.** *Latreille's Natürliche Familien des Thierreichs. Aus dem Französischen. Mit Anmerkungen und Zusätzen.* Landes-Industrie-Comptoir, Weimar.
- Billberg, G. J. 1820.** Novae insectorum species descriptiae. Mémoires de l'Académie Impériales des Sciences de St. Pétersbourg (5)7:381–395.
- Blackburn, T. 1898.** Further notes on Australian Coleoptera, with descriptions of new genera and species. XXIII. Transactions of the Royal Society of South Australia 22:18–64.
- Blanchard, C. É. 1845.** *Histoire des Insectes, Traitant de leurs Mœurs et de leurs Métamorphoses en Général et Comprenant une Nouvelle Classification Fondée sur leurs Rapports Naturels. Hyménoptères et Coléoptères*, part 1. Firmin Didot Frères, Paris, France.
- Blanchard, C. É. 1850.** Ordre des Coleoptera. In: *Muséum d'Histoire Naturelle de Paris. Catalogue de la Collection Entomologique. Classe des Insectes.* vol. 1, part 1. H. Milne-Edwards, C. É. Blanchard, and H. Lucas (eds.). Gide and Baudry, Paris, France.
- Blanchard, C. É. 1851.** Ordre des Coleoptera. In: *Muséum d'Histoire Naturelle de Paris. Catalogue de la Collection Entomologique. Classe des Insectes.* vol. 1, part 2. H. Milne-Edwards, C. É. Blanchard, and H. Lucas (eds.). Gide and Baudry, Paris, France.
- Boisduval, J. B. A. 1835.** *Voyage de Découvertes de L'Astrolabe Exécuté par Ordre du Roi, Pendant les Années 1826-1827-1828-1829, nous le Commandement de M. J. Dumont D'Urville. Fauna Entomologique de l'Océan Pacifique, avec l'Illustration des Insectes Nouveaux Recueillis Pendant le Voyage. Deuxième Partie. Coléoptères et Autres Ordres.* J. Tastu, Paris, France.
- Bouchard, P., J. F. Lawrence, A. Davies, and A. F. Newton. 2005.** Synoptic classification of the world Tenebrionidae (Insecta: Coleoptera) with a review of family-group names. Annales Zoologici 55:499–530.
- Boucher, S. 2005.** Évolution et phylogénie des Coléoptères Passalidae (Scarabaeoidea). Annales de la Société Entomologique de France 41:239–604.
- Boucumont, A. 1909.** Notes sur quelques sous-genres de Bolboceras [Col.] et description d'un sous-genre nouveau. Bulletin de la Société entomologique de France 1909:116–118.
- Boucumont, A. 1911.** Contribution à la classification de Geotrupidae [Col.]. Annales de la Société Entomologique de France 79:333–350. [Dated 1910].
- Boucumont, A. 1923.** Coprophaga Africana 2me note. Revue Zoologique Africaine 11:1–19.
- Boucumont, A. 1932.** Genre nouveau et espèces nouvelles ou peu connues de Bolbocerina [Col. Scarabaeidae]. Bulletin de la Société Entomologique de France 37:262–268.
- Bovo, B., and M. Zunino. 1983.** Nuovi generi di Geotrupini (Coleoptera, Scarabaeoidea: Geotrupidae) asiatici. Bollettino del Museo Regionale di Scienze Naturali Torino 1:397–416.
- Branco, T. 2006.** Authorship and date of the genus-group names *Rhizotrogus* and *Amphimallon* (Coleoptera: Melolonthidae). Elytron 19:43–48. [Dated 2005.].

- Brême, F. 1844.** Insectes Coléoptères nouveaux ou peu connus. Première et deuxième decades. *Annales de la Société Entomologique de France* 2:287–313.
- Brenske, E. 1893.** Zur Kenntniss der Adoretiden Madagascars. *Societas Entomologica* 8:1–2.
- Brenske, E. 1898.** Die *Serica*-Arten der Erde. Monographisch bearbeitet. *Berliner Entomologische Zeitschrift* 42:345–438. [Dated 1897].
- Britton, E. B. 1955.** Coleoptera: Scarabaeidae: Melolonthinae and Dynastinae from the Monte Bello Islands, 1952. *Proceedings of the Linnean Society of London* 165:124–126.
- Britton, E. B. 1957.** *A Revision of the Australian Chafers (Coleoptera: Scarabaeidae: Melolonthinae)*. Volume 1. British Museum (Natural History), London, U.K.
- Britton, E. B. 1978.** A revision of the Australian chafers (Coleoptera: Scarabaeidae: Melolonthinae) vol. 2. Tribe Melolonthini. *Australian Journal of Zoology Supplementary Series* 60:1–150.
- Britton, E. B. 1986.** A revision of the Australian chafers (Coleoptera: Scarabaeidae: Melolonthinae) Vol. 4. Tribe Liparetrini: genus *Colpochila*. *Australian Journal of Zoology Supplementary Series* 118:1–135.
- Broun, T. 1886.** *Manual of New Zealand Coleoptera*, parts 3 and 4. George Didsbury, Government Printer, Wellington, New Zealand.
- Browne, D. J., and C. H. Scholtz. 1995.** Phylogeny of the families of Scarabaeoidea (Coleoptera) based on characters of the hindwing articulation, hindwing base and wing venation. *Systematic Entomology* 20:145–173.
- Browne, J., and C. H. Scholtz. 1998.** Evolution of the scarab hindwing articulation and wing base: a contribution toward the phylogeny of the Scarabaeidae (Scarabaeoidea: Coleoptera). *Systematic Entomology* 23:307–326.
- Burmeister, H. 1840.** III. Coleoptera. 7. Lamellicornia. 40. *Hypselogenia*, 2 unnumbered pages. In: *Genera Quaedam Insectorum*. H. Burmeister (ed.). Privately published, Berlin, Germany.
- Burmeister, H. 1842.** *Handbuch der Entomologie*, volume 3. T.C.F. Enslin, Berlin, Germany.
- Burmeister, H. 1844.** *Handbuch der Entomologie*, volume 4, part 1. T.C.F. Enslin, Berlin, Germany.
- Burmeister, H. 1846.** III. Coleoptera. 7. Lamellicornia. 27. *Copris*, 4 unnumbered pages. In: *Genera Quaedam Insectorum*. H. Burmeister (ed.). Privately published, Berlin, Germany.
- Burmeister, H. 1847.** *Handbuch der Entomologie*, volume 5. T.C.F. Enslin, Berlin, Germany.
- Burmeister, H. 1855.** *Handbuch der Entomologie*, volume 4, part 2. T.C.F. Enslin, Berlin, Germany.
- Burmeister, H. 1873.** Lamellicornia Argentina. *Stettiner Entomologische Zeitung* 34:403–417.
- Burmeister, H., and H. Schaum. 1840.** Kritische Revision der Lamellicornia melitophila. *Zeitschrift für die Entomologie* 2:353–378.
- Burmeister, H., and H. Schaum. 1841.** Kritische Revision der Lamellicornia melitophila. *Zeitschrift für die Entomologie* 3:226–282.
- Cambefort, Y. 1991.** From saprophagy to coprophagy [pp. 22–35]. In: *Dung Beetle Ecology*. I. Hanski and Y. Cambefort (eds.). Princeton University Press, Princeton, NJ.
- Carlson, D. V., and P. O. Ritcher. 1974.** A new genus of Ochodaeinae and a description of the larva of *Pseudochodaeus estriatus* (Schaeffer) (Coleoptera: Scarabaeidae). *Pan-Pacific Entomologist* 50:99–110.
- Carne, P. B. 1957.** *A Systematic Revision of the Australian Dynastinae (Coleoptera: Scarabaeidae)*. Commonwealth Scientific and Industrial Research Organization, Melbourne, Australia.
- Cartwright, O. L. 1977.** A new species of *Psammодиус* from sand dunes of California (Scarabaeidae: Aphodiinae: Eupariina). *Coleopterists Bulletin* 31:281–282.
- Cassis, G., and T. A. Weir. 1992.** Rutelinae [pp. 359–382]. In: *Zoological Catalogue of Australia. Coleoptera: Scarabaeoidea*, volume 9. W. W. K. Houston and T. A. Weir (eds.). AGPS, Canberra, Australia.

- Chalumeau, F. 1983.** *Batesiana* et *Martinezia*, nouveaux genres d'Eupariini (Coleoptera: Scarabaeidae: Aphodiinae) du nouveau monde. Bulletin Mensuel de la Société Linnéenne de Lyon 52:142–153.
- Chalumeau, F. 1992.** Eupariini du nouveau monde: un mise au point (Coleoptera, Scarabaeidae) (1re partie). Nouvelle Revue d'Entomologie 9:189–206.
- Chavanon, G., and A. Zirari. 1998.** Un nouveau *Pachydema* Castelnau, 1832 du Maroc: *Pachydema camberforti* n. sp. (Coleoptera, Melolonthidae). Nouvelle Revue d'Entomologie (N. S.) 15:329–331.
- *Creutzer, C. 1799.** *Entomologische Versuche* (Kleine Beiträge zur nahren Berichtigungen einiger Kaferarten mit 3 ausgemahften Kupfertafeln von Sturm J.). Wien, Austria.
- Cruz, M., and I. Martínez. 2002.** Data on nesting and preimaginal development in two Mexican species of *Ataenius* Harold, 1867 (Coleoptera, Scarabaeoidea, Aphodiidae; Eupariinae). Folia Entomologica Mexicana 41:1–5.
- Curoe, D. J., and M. A. Morón. 2003.** A new species of *Promacropoides* Sigwalt (Coleoptera: Scarabaeidae: Rutelinae) from Panamá. Zootaxa 312:1–8.
- Dalman, J. W. 1824.** *Ephemerides entomologica*. P. A. Norstedt, Stockholm.
- Dejean, P. F. M. A. 1821.** *Catalogue de la Collection de Coléoptères de M. le Baron Dejean*. Crevot Libraire, Paris, France.
- Dejean, P. F. M. A. 1833.** *Catalogue des Coléoptères de la Collection de M. le Comte Dejean*, Fascicules 1–2. Méquignon-Marvis Père et Fils, Paris.
- Dejean, P. F. M. A. 1836.** *Catalogue des Coléoptères de la Collection de M. le Comte Dejean*. Troisième Édition, Revue, Corrigée et Augmentée, Fascicules 1–4. Méquignon-Marvis Père et Fils, Paris, France.
- Dellacasa, M. 1988.** Contribution to a world-wide catalogue of Aegialiidae, Aphodiidae, Aulonocnemidae, Termitotrogidae. (part I). Memorie della Società Entomologica Italiana 66:1–455. [Dated 1987.]
- Dellacasa, M., and Z. Stebnicka. 2001.** A new genus for *Oxyomus morosus* Harold, 1869 (Eupariini) and redefinition of *Oxyomus setosopunctatus* A. Schmidt, 1911 (Aphodiini) (Coleoptera Scarabaeidae: Aphodiinae). Acta Zoologica Mexicana (Nueva Serie) 83:29–34.
- Delgado, L., and J. Blackaller-Bages. 1997.** A new Mexican species of *Homoio sternus* (Coleoptera: Melolonthidae; Rutelinae). Journal of the New York Entomological Society 105:170–179.
- Delgado, L., A. Pérez, and J. Blackaller. 2000.** Claves para determinar a los taxones genericos y supragenericos de Scarabaeoidea Latreille, 1802 (Coleoptera) de Mexico. Folia Entomologica Mexicana 110:33–87.
- Deloya, C. 1994.** Distribucion del genero *Ataenius* Harold, 1867 en Mexico (Coleoptera: Scarabaeidae: Aphodiinae: Eupariini). Acta Zoologica Mexicana (Nueva Serie) 61:43–56.
- Dewailly, P. 1950.** Coléoptères Melolonthini de Madagascar. Mémoires de l'Institut Scientifique de Madagascar, série A 4:209–454.
- Deyrolle, H. 1863.** Nouveau genre de Lucanide. Annales de la Société Entomologique de France series 4 3:485–487.
- Deyrolle, H., and L. Fairmaire. 1878.** Descriptions de Coléoptères recueillis par M. l'abbé David dans la Chine centrale. Annales de la Société Entomologique de France (5)8:87–140.
- Didier, R., and E. Séguy. 1953.** *Catalogue Illustré des Lucanides du Globe*. Paul Lechevalier, Paris, France.
- Dupont, H. 1832.** Hétérosterne. *Heterosternus*. Dupont. Magasin de Zoologie 2: plate 10.
- Endrödi, S. 1966.** Monographie der Dynastinae (Coleoptera, Lamellicornia). I. Teil. Entomologische Abhandlungen Staatliches Museum für Tierkunde in Dresden 33:1–457.
- Endrödi, S. 1985.** *The Dynastinae of the World*. W. Junk, Dordrecht, Netherlands.
- Endrödi, S., and M. Rakovič. 1981.** Key to the species of South and south west African Aphodiinae. Folia Entomologica Hungarica 34:31–77.
- Erichson, W. F. 1835.** Neue Südamerikanische Käfergattungen aus der Familie der Blätterhörner. Archiv für Naturgeschichte 1:256–270.

- Erichson, W. F. 1840.** Die Pachypoden, eine kleine Gruppe aus der Familie der Melolonthen. *Entomographien* 1:29–43.
- Erichson, W. F. 1842.** Beitrag zur Insecten-Fauna von Vandiemensland, mit besonderer Berücksichtigung der geographischen Verbreitung der Insecten. *Archiv für Naturgeschichte* 8:83–287.
- Erichson, W. F. 1843.** Bericht über die wissenschaftlichen Leistungen in der Naturgeschichte der Insecten, Arachniden, Crustaceen u. Entomostraceen während des Jahres 1842. *Archiv für Naturgeschichte* 9:149–288.
- Erichson, W. F. 1847a.** *Conspectus Insectorum Coleopterum, quae in Republica Peruana observata sunt.* *Archiv für Naturgeschichte* 13:67–185.
- Erichson, W. F. 1847b.** *Naturgeschichte der Insecten Deutschlands*, volume 3, part 5. Nicolaischen Buchhandlung, Berlin, Germany.
- Erichson, W. F. 1848.** *Naturgeschichte der Insecten Deutschlands*, volume 3, part 5. Nicolaischen Buchhandlung, Berlin, Germany.
- Eschscholtz, J. F. 1818.** *Decades tres eleutheratorum novorum descripsit.* *Mémoires de l'Académie Impériale des Sciences de St. Pétersbourg* 6:451–484.
- Eschscholtz, J. F. 1822.** *Entomographien.* O. Reimer, Berlin.
- Evans, A. V. 1989.** Revision of the genus *Sparrmannia* Laporte (Coleoptera: Melolonthidae: Melolonthinae). *Journal of the Entomological Society of Southern Africa* 52:11–44.
- Evans, A. V. 2003.** A checklist of the New World chafers (Coleoptera: Scarabaeidae: Melolonthinae). *Zootaxa* 211:1–458.
- Evenhuis, N. L. 1997.** *Litteratura Taxonomica Dipterorum (1758–1930).* Volume I–II. Backhuys Publishers, Leiden, Netherlands.
- Evenhuis, N. L. 2003.** Publication and dating of the journals forming the *Annals and Magazine of Natural History* and the *Journal of Natural History.* *Zootaxa* 385:1–68.
- Fabricius, J. C. 1775.** *Systema Entomologiae, Sistens Insectorum Classes, Ordines, Genera, Species, Adiectis Synonymis, Locis, Descriptionibus, Observationibus.* Officina Libraria Kortii, Flensburg and Leipzig.
- Fabricius, J. C. 1792.** *Entomologiae Systematicae Emendatae et Auctae*, volume 1, part 1. C. G. Proft, Copenhagen, Denmark.
- Fabricius, J. C. 1798.** *Supplementum Entomologiae Systematicae.* Proft et Storge, Copenhagen, Denmark.
- Fabricius, J. C. 1801.** *Systema Eleutheratorum Secundum Ordines, Genera, Species: Adiectis Synonymis, Locis, Observationibus, Descriptionibus*, volume 2. Impensis Bibliopolii Academici Novi, Kiel, Germany.
- Fairmaire, L. 1850.** Description d'un nouveau genre de lucanide. *Annales de la Société Entomologique de France (series 2)* 8:53–57.
- Fall, H. C. 1901.** A change of name. *Canadian Entomologist* 33:324.
- Fallén, C. F. 1807.** *Observationes Entomologicae*, part 3. Litteris Berlingianis, Lund.
- Ferreira, M. C. 1953.** Monografia dos Escarabaeídeos da Africa do Sul. Tribo-Scarabaeini. I Parte Sub-tribo Pachysomides. *Boletim da Sociedade de Estudos da Provincia de Moçambique* 23:1–87.
- Fischer von Waldheim, G. 1823.** Coleoptera quaedam exotica, descripta. *Mémoires de la Société Impériale des Naturalistes de Moscou* 6:254–267.
- Fleming, J. 1821.** Insecta. In: *Supplement to the Fourth, Fifth, and Sixth Editions of the Encyclopaedia Britannica*, volume 5, part 1. Archibald Constable and Company, Edinburgh, Scotland.
- Frey, G. 1974a.** Ein neuer amerikanische Gattung der Tribus Pachydemini (Col. Melolonthidae). *Entomologische Arbeiten aus dem Museum G. Frey* 25:139–140.
- Frey, G. 1974b.** Ein neuer *Trichinopus* aus dem Museum Alexander König in Bonn (Col. Melolonthidae Pachydemini). *Entomologische Arbeiten aus dem Museum G. Frey* 25:342.
- Frey, G. 1975.** Eine neue südamerikanische Gattung und Tribus der Melolonthiden. *Entomologische Arbeiten aus dem Museum G. Frey* 26:84–85.
- Gené, J. 1836.** De quibusdam insectis sardiniae novis aut minus cognitis. *Memorie della Reale Accademia della Scienze di Torino* 39:161–199.

- Geoffroy, E. L. 1762.** *Histoire Abrégée des Insectes*, volume 1. Calixte-Volland and Rémont, Paris, France.
- Germain, P. 1897.** Apuntes Entomológicos. Agrupacion de los Taurocerastidae. Anales de la Universidad de Chile 98:287–300.
- Germain, P. 1903.** Apuntes Entomológicos. Anales de la Universidad de Chile 112:343–365.
- Gordon, R., and S. McCleve. 2003.** Five new species of *Euparixia* Brown (Coleoptera: Aphodiidae: Eupariinae), with a revised key to species. Proceedings of the Entomological Society of Washington 105:685–697.
- Gory, H., and A. Percheron. 1833.** *Monographie des Cétaines et Genres Voisins, Formant, dans les Familles Naturelles de Latreille, la Division des Scarabées Méliothiles*. J.-B. Baillière, Paris, France.
- Gravely, F. H. 1914.** An account of the oriental Passalidae (Coleoptera), based primarily on the collection in the Indian Museum. Memoirs of the Indian Museum 3:177–353, plates XI–XII.
- Griffith, E., and E. Pidgeon. 1832.** *The Class Insecta Arranged by the Baron Cuvier, with Supplementary Additions to each Order*. Volume 1, Whittaker, Treacher, and Co., London, U.K..
- Guérin-Méneville, F. E. 1831.** Insectes. In: *Voyage Autour du Monde, Exécuté par Ordre du Roi, sur la Corvette de la Majesté, la Coquille, Pendant les Années 1822, 1823, 1824 et 1825, sous le Ministère et Conformément aux Instructions de S. E. M. Le Marquis de Clermont-Tonnerre, Ministre de la Marine; et Publié sous les Auspices de son Excellence Mgr le Cte de Chabrol, Ministre de la Marine et des Colonies* M. L. I. Duperrey (ed.). Atlas (Histoire naturelle, Zoologie), Arthus Bertrand, Paris, France.
- Guérin-Méneville, F. E. 1840.** Description de quelques Coléoptères des côtes du détroit de Magellan. Revue Zoologique 1840:295–305.
- Halffter, G. 1961.** Monografía de las especies norteamericanas del genero *Canthon* Hoffsg. (Coleopt., Scarab.). Ciencia 20:225–320.
- Halffter, G., and E. G. Matthews. 1966.** The natural history of dung beetles of the subfamily Scarabaeinae (Coleoptera, Scarabaeidae). Folia Entomologica Mexicana 12–14:1–312.
- Hardy, A. R. 1978.** Three new Pachydemini and a key to the species of the genus *Phobetus* (Coleoptera: Scarabaeidae). Coleopterists Bulletin 32:47–52.
- Harold, E. 1861.** Beiträge zur Kenntniss einiger coprophagen Lamellicornia. Berliner Entomologische Zeitschrift 5:92–115.
- Harold, E. 1867a.** Zur Kenntniss der Gattung *Canthidium* und ihrer nächsten Verwandten. Coleopterologische Hefte 1:1–61.
- Harold, E. 1867b.** Diagnosen neuer Coprophagen. Coleopterologische Hefte 1:76–83.
- Harold, E. 1868.** Die chilensischen Aphodiden. Berliner Entomologische Zeitschrift 11:278–282. [Dated 1867].
- Harold, E. 1869.** Abänderungen vergebener Namen. Coleopterologische Hefte 5:122–125.
- Harold, E. 1877.** Enumération des Lamellicornes Coprophages rapportés de l'Archipel Malais, de la Nouvelle Guinée et de l'Australie boréale par M. M. J. Doria, O. Beccari et L. M. D'Albertis. Annali del Museo Civico di Storia Naturale di Genova 10:38–110.
- Harpootlian, P. J. 2001.** Scarab beetles (Coleoptera: Scarabaeidae) of South Carolina. Biota of South Carolina 2:1–157.
- Harris, T. W. 1827.** Minutes towards a history of some American species of Melolonthae particularly injurious to vegetation. Massachusetts Agricultural Journal 10:1–12.
- Harris, T. W. 1841.** *A Report on the Insects of Massachusetts, Injurious to Vegetation*. Folsom, Wells, and Thurston, Cambridge, U.K.
- Heer, O. 1841.** *Fauna Coleopterorum Helvetica*, part 1, fascicle 3. Orellii, Fuesslini et Sociorum, Zurich, Switzerland.
- Heller, K. M. 1900.** Neue Käfer von Celebes IV. Abhandlungen und Berichte des Königlichen Zoologischen und Anthropologisch-Ethnographischen Museums zu Dresden 9:1–46.

- Hellwig, J. C. L. 1792.** Dritte Nachricht von neuen Gattungen im entomologischen System. *Neues Magazin für die Liebhaber der Entomologie* 1:385–408.
- Heyden, L., E. Reitter, and J. Weise. 1883.** *Catalogus Coleopterorum Europae et Caucasi*, editio tertia. Libraria Nicolai, Berlin, Germany.
- Holloway, B. A. 1968.** The relationship of *Syndesus* MacLeay and *Sinodendron* Schneider (Coleoptera: Lucanidae). *New Zealand Journal of Science* 11:264–269.
- Holloway, B. A. 1972.** The systematic position of the genus *Diphyllostoma* Fall (Coleoptera: Scarabaeoidea). *New Zealand Journal of Science* 15:31–38.
- Holloway, B. A. 1997.** Elytral surface structures as indicators of relationships in stag beetles, with special reference to the New Zealand species (Coleoptera: Lucanidae). *New Zealand Journal of Zoology* 24:47–64.
- Hoffmannsegg, J. C. 1817.** Entomologische Bemerkungen bei Gelegenheit der Abhandlungen über amerikanische Insecten. *Zoologisches Magazin* 1:8–56.
- Hope, F. W. 1831.** Synopsis of the new species of Nepal insects in the collection of Major General Hardwicke. *Zoological Miscellany* 1:21–32.
- Hope, F. W. 1833.** On the characters of several new genera and species of Coleopterous insects. *Proceedings of the Zoological Society of London* 1:61–64.
- Hope, F. W. 1837.** *The Coleopterists Manual, Containing the Lamellicorn Insects of Linneus and Fabricius*. Henry G. Bohn, London, U.K.
- Hope, F. W. 1839.** A monograph on Mr. William Sharp MacLeay's coleopterous genus *Euchlora*. *Proceedings of the Zoological Society of London* 7:65–75.
- Hope, F. W. 1840.** Descriptions of some new insects collected in Assam, by William Griffith, Esq., Assistant Surgeon in the Madras Medical Establishment. *Annals and Magazine of Natural History (series 1)* 6:299–301.
- Hope, F. W. 1841.** Descriptions of some nondescript Lamellicorn beetles in his collection. *Annals and Magazine of Natural History (series 1)* 8:302–304.
- Hope, F. W. 1842a.** On some rare and beautiful Coleopterous insects from Silhet, the major part belonging to the collection of Frederic Parry, Esq., of Cheltenham. *Proceedings of the Linnean Society of London* 1:127–128.
- Hope, F. W. 1842b.** Observations on the Coleoptera of Port Essington, in Australia, with descriptions of the following new species. *Annals and Magazine of Natural History series 1 volume 9*:423–430.
- Hope, F. W. 1843.** Descriptions of the Coleopterous insects sent to England by Dr. Cantor from Chusan and Canton, with observations on the entomology of China. *Annals and Magazine of Natural History (series 1)* 11:62–66.
- Hope, F. W. 1845.** On the entomology of China, with descriptions of the new species sent to England by Dr. Cantor from Chusan and Canton. *Transactions of the Entomological Society of London* 4:4–17.
- Horn, G. H. 1866.** Descriptions of some new genera and species of Central American Coleoptera. *Proceedings of the Academy of Natural Sciences of Philadelphia* 18:397–401.
- Houston, W. W. K., and T. A. Weir. 1992.** Melolonthinae [pp. 174–358]. In: *Zoological Catalogue of Australia. Coleoptera: Scarabaeoidea*, volume 9. W. W. K. Houston and T. A. Weir (eds.). AGPS, Canberra, Australia.
- Howden, H. F. 1973.** *Scarabatermes amazonensis*, a new genus, new species, of termitophilous Scarabaeidae (Coleoptera). *Canadian Entomologist* 105:29–33.
- Howden, H. F. 1997.** Podolasiini Howden, new tribe, and a revision of the included genera, *Podolasia* Harold and *Podostena* Howden, new genus (Coleoptera: Scarabaeidae: Melolonthinae). *Coleopterists Bulletin* 51:223–255.
- Howden, H. F. 2001.** A new tribe of Hybosorinae with a description of a new species of *Callosides* Howden (Coleoptera: Scarabaeidae). *Coleopterists Bulletin* 55:199–204.
- Howden, H. F., and J. B. Cooper. 1977.** The generic classification of the Bolboceratini of the Australian region, with descriptions of four new genera (Scarabaeidae: Geotrupinae). *Australian Journal of Zoology Supplementary Series* 50:1–50.
- Howden, H. F., and B. D. Gill. 1988.** A fourth genus of unusually modified Ceratocanthinae (Coleoptera: Scarabaeidae) from South America. *Canadian Journal of Zoology* 66:2077–2079.

- Howden, H. F., and B. D. Gill. 2000.** Tribes of New World Ceratocanthinae, with keys to genera and descriptions of new species (Coleoptera: Scarabaeidae). *Sociobiology* 35:281–329.
- Howden, H. F., and A. R. Hardy. 1971.** Generic placement and adult behaviour of the genus *Leptohoplia* Saylor (Coleoptera: Scarabaeidae). *Proceedings of the Entomological Society of Washington* 73:337–341.
- Howden, H. F., and J. F. Lawrence. 1974.** The New World Aesalinae, with notes on the North American lucanid sub-families (Coleoptera, Lucanidae). *Canadian Journal of Zoology* 52:1505–1510.
- Howden, H. F., and A. Martínez. 1963.** The new tribe Athyreini and its included genera (Coleoptera: Scarabaeidae, Geotrupidae). *Canadian Entomologist* 95:345–352.
- Howden, H. F., and R. I. Storey. 1992.** Phylogeny of the Rhyparini and the new tribe Stereomerini with descriptions of new genera and species (Coleoptera; Scarabaeidae; Aphodiinae). *Canadian Journal of Zoology* 70:1810–1823.
- Iablokoff-Khnozorian, S. M. 1977.** Über die Phylogenie der Lamellicornia (Insecta, Coleoptera). *Entomologische Abhandlungen Staatliches Museum für Tierkunde in Dresden* 41:135–200.
- Illiger, J. K. W. 1803.** Verzeichniss der in Portugall einheimischen Käfer. Erste Lieferung. *Magazin für Insektenkunde* 2:186–258.
- Imhoff, L. 1856.** *Versuch einer Einführung in das Studium der Koleoptern*. Schweighauser'sche Buchdruckerei, Basel, Switzerland.
- International Commission on Zoological Nomenclature (ICZN). 1962.** Opinion 621. Phaenomerididae Ohaus, 1913, and Phaenomerina Faust, 1898 (Insecta, Coleoptera); addition to the official list. *Bulletin of Zoological Nomenclature* 19:74–75.
- International Commission on Zoological Nomenclature (ICZN). 1989.** Opinion 1546. *Chelonus* Panzer, 1806 (Insecta, Hymenoptera) and *Anomala* Samouelle, 1819 (Insecta, Coleoptera): names conserved. *Bulletin of Zoological Nomenclature* 46:149–150.
- International Commission on Zoological Nomenclature (ICZN). 1994.** Opinion 1754. *Histoire abrégée des insectes qui se trouvent aux environs de Paris* (Geoffroy, 1762): some generic names conserved (Crustacea, Insecta). *Bulletin of Zoological Nomenclature* 51:58–70.
- International Commission on Zoological Nomenclature (ICZN). 1999.** *International Code of Zoological Nomenclature, Fourth Edition*. International Commission on Zoological Nomenclature, The Natural History Museum, London, U.K.
- International Commission on Zoological Nomenclature (ICZN). 2004.** Opinion 2079 (Case 2926). *Trichia* Hartmann, 1840 (Mollusca, Gastropoda): proposed conservation; and Trichiinae Lozek, 1956 (Gastropoda): proposed emendation of spelling to Trichiinae, so removing the homonymy with Trichiidae Fleming, 1821 (Insecta, Coleoptera) not approved. *Bulletin of Zoological Nomenclature* 61:177–181.
- Jacquelin du Val, P. N. C., and L. Fairmaire. 1859.** *Genera des Coléoptères d'Europe*, volume 3. A. Deyrolle, Paris, France.
- Jameson, M. L. 1990.** Revision, phylogeny and biogeography of the genera *Parabyrsopolis* Ohaus and *Viridimicus* new genus (Coleoptera: Scarabaeidae: Rutelinae). *Coleopterists Bulletin* 44:377–422.
- Jameson, M. L. 1998.** Phylogenetic analysis of the subtribe Rutelina and revision of the *Rutela* generic groups (Coleoptera: Scarabaeoidea: Rutelinae: Rutelini). *Bulletin of the University of Nebraska State Museum* 14:1–184. [Dated 1997.].
- Jameson, M. L., and S. J. Hawkins. 2005.** Synopsis of the genera of Geniatini (Coleoptera: Scarabaeidae: Rutelinae) with an annotated catalog of species. *Zootaxa* 874:1–76.
- Jameson, M. L., A. Paucar-Cabrera, and A. Solis. 2003.** Synopsis of the New World genera of Anomalini (Coleoptera: Scarabaeidae: Rutelinae) and description of a new genus from Costa Rica and Nicaragua. *Annals of the Entomological Society of America* 96:415–432.
- Janson, O. E. 1881.** Notes of new or little known Cetoniidae. *Cistula Entomologica* 2:603–611, plate 11.

- Janssens, A. 1946.** Contribution a l'étude des Coléoptères Lamellicornes coprophages. Bulletin du Musée Royal d'Histoire Naturelle de Belgique 22:1–13.
- Jekel, H. 1866.** Essai sur la classification naturelle des *Geotrupes* Latreille et descriptions d'espèces nouvelles. Annales de la Société Entomologique de France 4:513–618. [Dated 1865].
- Kaup, J. 1868a.** Prodomus zu einer Monographie der Passaliden. Coleopterologische Hefte 3:4–32.
- Kaup, J. 1868b.** Prodomus zu einer Monographie der Passaliden. Coleopterologische Hefte 4:1–31.
- Kaup, J. 1869.** Prodomus zu einer Monographie der Passaliden. Coleopterologische Hefte 5:1–40.
- Kaup, J. 1871.** Monographie der Passaliden. Berliner Entomologische Zeitschrift 15:1–125.
- Keith, D. 2002.** Sur quelques Pachydeminae (Coleoptera, Melolonthinae). Lambillionea 102:36–42.
- Keith, D. 2005.** Les *Elaphocera* du basin Méditerranéen oriental a hanches postérieures saillantes en pointe: deux nouvelles espèces de Grèce (Col. Melolonthidae Pachydeminae). Lambillionea 105:242–244.
- Keith, D., and O. Montreuil. 2004.** Révision des genres *Otoclinius* Brenske 1896, *Falsotoclinius* n. gen. et *Tanyproctoides* Petrovitz 1971 (Coleoptera: Melolonthidae: Pachydeminae). Annales de la Société Entomologique de France 40:213–228.
- Kikuta, T. 1986.** On the higher taxa of the stag beetle family Lucanidae [pp. 131–138]. In: *Papers on Entomology Presented to Professor Takeshiko Nakane in Commemoration of his Retirement*. Japanese Society of Coleopterology, Tokyo, Japan.
- Kirby, W. 1819a.** A century of insects, including several new genera described from his cabinet. Transactions of the Linnean Society of London 12:375–453. [Dated 1818.].
- Kirby, W. 1819b.** A description of several new species of insects collected in New Holland by Robert Brown. Transactions of the Linnean Society of London 12:454–482. [Dated 1818.].
- Kirby, W. 1825.** A description of such genera and species of insects, alluded to in the “Introduction to Entomology” of Messrs. Kirby and Spence, as appear not to have before sufficiently noticed or described. Transactions of the Linnean Society of London 14:563–572.
- Kirby, W. 1827.** A description of some new genera and species of petalocerous Coleoptera. Zoological Journal 3:145–158.
- Kirby, W. 1828.** A description of some Coleopterous insects in the collection of the Rev. F.W. Hope, F.L.S. Zoological Journal 3:520–525.
- Kirby, W. 1837.** The Insects. In: *Fauna Boreali-Americana*, part 4. J. Richardson, W. Swainson, and W. Kirby (eds.). Josiah Fletcher, Norwich, U.K.
- Kirby, W., and W. Spence. 1828.** *An Introduction to Entomology*, volume 4. Fifth Edition. Longman, Rees, Orme, Brown, and Green, London, U.K.
- Klug, J. C. F. 1838.** Ueber zwei neue Käfergattungen aus Madagaskar. Archiv für Naturgeschichte 4:67–72.
- Klug, J. C. F. 1845.** Coleoptera XV–XVI, 8 unnumbered pages, plate XLI–XLII. In: *Symbolae Physicae seu Icones et Descriptiones Insectorum quae ex itinere Africam Borealem et Asiam Occidentalem*, volume 5. C. G. Eherenberg (ed.). G. Reimeri, Berlin.
- Knoch, A. W. 1801.** *Neue Beiträge zur Insektenkunde*. Leipzig, Germany.
- Kolbe, H. J. 1894.** Ueber einige neue, von Herrn J. Fruhstorfer auf Java entdeckte Coleopteren. Stettiner Entomologische Zeitung 55:3–11.
- Kolbe, H. J. 1897.** Beiträge zur Kenntniss der melitophilen Lamellicornier (Coleoptera). VIII. Die afrikanischen Genera und Spezies der Valgiden. Stettiner Entomologische Zeitung 58:184–215.
- Kolbe, H. J. 1904.** Gattungen und Arten der Valgiden von Sumatra und Borneo. Stettiner Entomologische Zeitung 65:3–57.
- Kolbe, H. J. 1905.** Über die Lebensweise und die geographische Verbreitung der coprophagen Lamellicornier. Zoologischen Jahrbüchern Supplement 8:475–594.

- Kolbe, H. 1907.** Neue Coprophagen aus Afrika. 1. Annales de la Société Entomologique de Belgique 51:25–31.
- Kraatz, G. 1880a.** Genera nova Cetonidarum. Entomologische Monatsblätter 2:17–32.
- Kraatz, G. 1880b.** Genera Cetonidarum Australiae. Deutsche Entomologische Zeitschrift 24:177–214.
- Kraatz, G. 1882a.** Ueber die Gattung *Clinteria* Burm. Deutsche Entomologische Zeitschrift 26:49–51.
- Kraatz, G. 1882b.** Die africanischen Leucoceliden und die ihnen zunächst verwandten Gattungen der Cetoniden. Deutsche Entomologische Zeitschrift 26:65–78.
- Kraatz, G. 1883.** Ueber die Gattung *Valgus* und eine Anzahl neuer Arten derselben. Deutsche Entomologische Zeitschrift 27:371–379.
- Kraatz, G. 1895.** *Acanthovalgus* nov. gen. Valginorum. Deutsche Entomologische Zeitschrift 1895:444.
- Krikken, J. 1975.** *Telochilus freyi*, a new genus and species from Nigeria (Coleoptera: Cetoniidae). Zoologische Mededelingen 49:21–25.
- Krikken, J. 1984.** A new key to the suprageneric taxa in the beetle family Cetoniidae, with annotated lists of the known genera. Zoologische Verhandlungen 210:1–75.
- Kugelann, J. G., and J. K. W. Illiger. 1798.** *Verzeichniss der Käfer Preussens*. Johann Jacob Gebauer, Halle, Germany.
- Kuwert, A. 1891.** Systematische Uebersicht der Passaliden-Arten und Gattungen. Deutsche Entomologische Zeitschrift 1891:161–192.
- Kuwert, A. 1896.** Die Passaliden dichotomisch bearbeitet. Novitates Zoologicae 3:209–231.
- Lacordaire, J. T. 1856.** *Histoire Naturelle des Insectes. Genera des Coléoptères*, vol. 3. Librairie Encyclopédique de Roret, Paris, France.
- Lacroix, J. P. 1979.** Contributions à l'étude des Coléoptères lucanides du globe: deux genres nouveaux et onze espèces inédites (Chiasognathinae, Lucaninae, Chalcodinae, Cladognathinae, Dorcinae). Bulletin et Annales de la Société Royal Belge d'Entomologie 114:249–294. [Dated 1978.].
- Lacroix, M. 1989.** Insectes Coléoptères Melolonthidae (1re partie). Fauna de Madagascar 73:1–302.
- Lacroix, M. 1997.** Insectes Coléoptères Hopleiidae (1ère partie). Fauna de Madagascar 88:1–400.
- Lacroix, M. 1998.** Insectes Coléoptères Hopleiidae (2e partie). Fauna de Madagascar 88:401–755.
- Lacroix, M. 2001.** Pachydeminae de l'Est africain (Kenya et Tanzanie) (Coleoptera, Melolonthidae). Coléoptères 7:173–226.
- Lacroix, M. 2003.** Contribution à la connaissance des Pachydeminae africains. III. Nouveau genre et nouvelles espèces (Coleoptera, Melolonthidae). Coléoptères 9:63–82.
- Lacroix, M. 2004.** Contribution à la connaissance des Pachydeminae africains, IV. Nouvelle espèces (Coleoptera, Melolonthidae). Coléoptères 10:107–118.
- Lacroix, M. 2005.** Contribution à la connaissance des Pachydeminae africains, V. Nouvelles espèces de *Oedanomerus* Waterhouse (Coleoptera, Melolonthidae). Coléoptères 11:51–65.
- van Laicharting, J. N. 1781.** *Verzeichniss und Beschreibung der Tyroler Insecten. 1. Theil Käferartige Insecten*, volume 1. Johann Caspar Füessly, Zürich, Switzerland.
- Lamarck, J. B. 1801.** *Système des Animaux sans Vertèbres*. Muséum d'Histoire Naturelle, Paris, France.
- Landin, B.-O. 1949.** Entomological results from the Swedish expedition 1934 to Burma and British India; Coleoptera: Lamellicornia; Fam. Scarabaeidae collected by René Malaise. Arkiv för Zoologi 1:3–9.
- Landin, B.-O. 1960.** Report no. 5 from the Lund University expedition in 1957 to the Azores and Madeira. The Lamellicorn beetles of the Azores (Coleoptera) with some reflections on the classification of certain Aphodiini. Boletim do Museu Municipal do Funchal 13:49–84.
- van Lansberge, J. W. 1874a.** *Ennearabdus*, gen. nov.; *Synopsis Ritsemiae* Lansb. Annales de la Société Entomologique de Belgique 17:CXLIII–CXLIV.

- van Lansberge, J. W. 1874b. Observations sur la classification des Lamellicornes coprophages. *Annales de la Société Entomologique de Belgique* 17:177–193.
- van Lansberge, J. W. 1875. Monographie des Onitides. *Annales de la Société Entomologique de Belgique* 18:5–148.
- Laporte, F. L. 1832a. Mémoire sur cinquante espèces nouvelles ou peu connues d'insectes. *Annales de la Société Entomologique de France* 1:386–415.
- Laporte, F. L. 1832b. Pachydeme. *Pachydema*. Laporte. *Magasin de Zoologie* 2: plate 37.
- Laporte, F. L. 1832c. Trochale. *Trochalus*. Laporte. *Magasin de Zoologie* 2: plate 44.
- Laporte, F. L. (Comte de Castelnaud). 1840. *Histoire Naturelle des Insectes Coléoptères* (volume 2 of *Histoire Naturelle des Animaux Articulés*). P. Duménil, Paris, France.
- Latreille, P. A. 1797. *Précis des Caractères Génériques des Insectes, Disposés dans un Ordre Naturel*. F. Bourdeaux, Paris, France.
- Latreille, P. A. 1802. *Histoire Naturelle, Générale et Particulière, des Crustacés et des Insectes*, volume 3. F. Dufart, Paris, France.
- Latreille, P. A. 1804. *Histoire Naturelle, Générale et Particulière, des Crustacés et des Insectes*, volume 10. F. Dufart, Paris, France.
- Latreille, P. A. 1807. *Genera Crustaceorum et insectorum Secundum Ordinem Naturalem in Familias Disposita, Iconibus Exemplisque Plurimis Explicata*, volume 2. Amand Koenig, Paris, France.
- Latreille, P. A. 1825. *Familles Naturelles du Règne Animal, Exposées Succinctement et dans un ordre analytique, avec l'Indication de leurs Genres*. J.-B. Baillière, Paris, France.
- Latreille, P. A. 1829. *Le Règne Animal Distribué d'Après son Organisation, pour Servir de Base à l'Histoire Naturelle des Animaux et d'Introduction à l'Anatomie Comparée. Par M. Le Baron Cuvier, avec Figures Dessinées d'Après Nature. Nouvelle Édition, Revue et Augmentée. Tome IV. Crustacés, Arachnides et Partie des Insectes*. Déterville, Paris, France.
- Lawrence, J. F., and A. F. Newton. 1995. Families and subfamilies of Coleoptera (with selected genera, notes, references and data on family-group names) [pp. 779–1006]. In: *Biology, Phylogeny, and Classification of Coleoptera: Papers Celebrating the 80th Birthday of Roy A. Crowson*. J. Pakaluk and S. A. Slipinski (eds.). Muzeum i Instytut Zoologii PAN, Warszawa, Poland.
- Leach, W. E. 1815a. Entomology [pp. 57–172]. In: *Edinburgh Encyclopaedia*, volume 9, part 1 Brewster (ed.), Edinburgh, Scotland.
- Leach, W. E.. 1815b. *Rutela* [pp. 43–44, plate 75]. In: *The Zoological Miscellany: Being Descriptions of New, or Interesting Animals*, (W. E. Leach. author). B. McMillan, London, U.K. [*Anoplognathus* validated in the "Index Systematicus" on page 156.]
- Lebis, E. 1953. Révision des Canthoninae de Madagascar (Col. Scarabaeidae). *Mémoires de l'Institut Scientifique de Madagascar*, série 3:107–252.
- LeConte, J. L. 1856a. Synopsis of the Melolonthidae of the United States. *Journal of the Academy of Natural Sciences of Philadelphia* (series 2) 3:225–288.
- LeConte, J. L. 1856b. Notice of three genera of Scarabaeidae found in the United States. *Proceedings of the Academy of National Sciences of Philadelphia* 8:19–25.
- LeConte, J. L. 1861. Classification of the Coleoptera of North America. Prepared for the Smithsonian Institution. *Smithsonian Miscellaneous Collections* 3:i–xxv + 1–214.
- LeConte, J. L. 1874. Descriptions of new Coleoptera chiefly from the Pacific slope of North America. *Transactions of the American Entomological Society* 5:43–72.
- Le Guillou, E. J. F. 1844. Description de vingt insectes Coléoptères recueillis pendant le voyage autour du monde de l'Astrolabe et la Zélée. *Revue Zoologique* 7:220–225.
- LePeletier, A. L. M., and J. G. A. Serville. 1828a. Scarabé, *Scarabaeus* [pp. 346–382]. In: *Encyclopédie Méthodique. Histoire Naturelle. Entomologie, ou Histoire Naturelle des Crustacés, des Arachnides et des Insectes*, volume 10, part 2. P. A. Latreille, A. L. M. LePeletier, J. G. A. Serville, and F. E. Guérin-Méneville (eds.). Mme veuve Agasse, Paris, France.
- LePeletier, A. L. M., and J. G. A. Serville. 1828b. Trichie, *Trichius* [pp. 701–704]. In: *Encyclopédie Méthodique. Histoire Naturelle. Entomologie, ou Histoire Naturelle des Crustacés, des Arachnides et des Insectes*, volume 10, part 2. P. A. Latreille, A. L. M.

- LePeletier, J. G. A. Serville, and F. E. Guérin-Méneville (eds.). Mme veuve Agasse, Paris, France.
- Lewis, G. 1895.** On the Lamellicorn Coleoptera of Japan, and notices of others. *Annals and Magazine of Natural History* (series 6) 16:374–408.
- Linnaeus, C. 1758.** *Systema Naturae per Regna Tria Naturae, Secundum Classes, Ordines, Genera, Species, cum Characteribus, Differentiis, Synonymis, Locis*, edition 10, volume 1. Laurentii Salvii, Stockholm, Sweden.
- López Colón, J. I. 1986.** Los Pachydemini de las Islas Canarias (Col. Scarabaeoidea). *Bolletín del Grupo Entomológico de Madrid* 2:83–106.
- López Colón, J. I. 1989.** Sobre la diferenciación de los taxones a nivel supraespecífico de los Pachydemini canarios (Coleoptera, Melolonthidae). *Bolletino del Museo Regionale di Scienze Naturali di Torino* 7:297–302.
- Machatschke, J. W. 1959.** Phylogenetische Untersuchungen über die Sericini (sensu Dalla Torre 1912) (Coleoptera: Lamellicornia, Melolonthidae). *Beiträge zur Entomologie* 9:730–746.
- Machatschke, J. W. 1971.** Vier neue *Anomala*-Arten aus Gabun (Coleoptera, Lamellicornia, Rutelinae, Anomalini). *Entomologische Arbeiten aus dem Museum G. Frey* 22:136–149.
- Machatschke, J. W. 1972.** Scarabaeoidea: Melolonthidae, Rutelinae. *Coleopterum Catalogus Supplementa* 66:1–361.
- Machatschke, J. W. 1973a.** Eine neue *Anomala* aus Äthiopien (Coleoptera: Lamellicornia, Melolonthidae, Rutelinae, Anomalini). *Entomologische Arbeiten aus dem Museum G. Frey* 24:249–254.
- Machatschke, J. W. 1973b.** Eine neue *Rhinyptia* (*Pararhinyptia*) aus Gabon (Coleoptera: Lamellicornia, Melolonthidae, Rutelinae, Anomalini). *Entomologische Arbeiten aus dem Museum G. Frey* 24:280–283.
- MacLeay, W. S. 1819.** *Horæ Entomologicae: or Essays on the Annulose Animals*, volume 1, part 1. S. Bagster, London, U.K.
- MacLeay, W. S. 1821.** *Horæ Entomologicae: or Essays on the Annulose Animals*, volume 1, part 2. S. Bagster, London, U.K.
- MacLeay, W. S. 1838.** Illustrations of the Annulosa of South Africa. In: *Illustrations of the Zoology of South Africa; Consisting Chiefly of Figures and Descriptions of the Objects of Natural History Collected During an Expedition into the Interior of South Africa, in the Years 1834, 1835, and 1836*. Invertebratae, volume 5. A. Smith (ed.). Smith, Elder and Co., London, U.K.
- Madge, R. B. 1989.** A catalogue of the family-group names in the Geodephaga, 1758–1985 (Coleoptera: Carabidae s. lat.). *Entomologica Scandinavica* 19:459–474.
- Maes, J.-M. 1992a.** Lista de los Lucanidae (Coleoptera) del Mundo. *Revista Nicaraguense de Entomología* 22A:1–60.
- Maes, J.-M. 1992b.** Lista de los Lucanidae (Coleoptera) del Mundo. *Revista Nicaraguense de Entomología* 22A:61–121.
- Mannerheim, C. G. 1829.** Description de quarante nouvelles espèces de scarabéides du Brésil. *Mémoires de la Société Impériale des Naturalistes de Moscou* 7:31–80, plate 1–2.
- Martínez, A. 1951.** Scarabaeidae nuevos o poco conocidos II. Misión de Estudios de Patología Regional Argentina 22:23–36.
- Martínez, A. 1968.** Insectos nuevos o poco conocidos XIII: Ceratocanthini nom. nov. para Acanthocerini (Coleoptera, Scarabaeidae, Troginae). *Revista de la Sociedad Entomológica Argentina* 30:9–16. [Dated 1967.].
- Martínez, A. 1972.** Un nuevo genero y especie de Pachydemini Chileno (Col. Scarabaeidae, Melolonthinae). *Entomologische Arbeiten aus dem Museum G. Frey* 23:86–92.
- Martínez, A. 1973.** El genero *Neogutierrezia* Martínez, 1953 (Col. Scarab. Melolonth. Pachydemini). *Anales de la Sociedad Científica Argentina* 195:25–41.
- Martínez, A. 1975.** Contribución al conocimiento de los Pachydemini neotropicales (Col. Scarabaeidae, Melolonthinae). *Entomologische Arbeiten aus dem Museum G. Frey* 26:227–251.
- Martínez, A. 1982.** Un nuevo genero de Pachydemini Argentino (Col. Scarab. Melolonthinae). *Revista Sociedad Entomologica Argentina* 41:89–91.

- Martínez, M. I., C. Deloya, and M. Dellacasa. 2001.** Anatomical and functional data on female and male reproductive systems of some dung beetle species of Aphodiinae and Eupariinae of Mexico (Coleoptera: Scarabaeoidea: Aphodiidae). *Proceedings of the Entomological Society of Washington* 103:227–248.
- Masumoto, K., and T. Ochi. 2005.** New records of *Atenius peregrinator* Harold (Scarabaeidae, Aphodiinae, Eupariini) from Okinawa Island. *Elytra* 33:490.
- Mateu, J. 1966.** Un nouveau Corythoderini termitophile récolté dans l'Ennedi (Col. Scarabaeidae Aphodiinae). *Bulletin de l'Institut Fondamental d'Afrique Noire* 28:717–721.
- Medvedev, S. I. 1951.** *Zhestkokrylye 10(1). Platinchatousye (Scarabaeidae), podsem. Melolonthinae. Fauna SSSR (new series) 46.* Zoologicheskii Institut Akademia Nauk SSSR, Moscow, USSR.
- Medvedev, S. I. 1952.** *Zhestkokrylye 10(2). Platinchatousye (Scarabaeidae), podsem. Melolonthinae. Fauna SSSR (new series) 52.* Zoologicheskii Institut Akademia Nauk SSSR, Moscow, USSR.
- Ménétries, E. 1832.** *Catalogue Raisonné des Objets de Zoologie Recueillis dans un Voyage au Caucase et Jusqu'aux Frontières Actuelles de la Perse Entrepris par Ordre de S. M. l'Empereur.* L'Académie Impériale des Sciences, St. Petersburg, Russia.
- Micó, E., B. Gómez, and E. Galante. 2006.** The Mesoamerican genus *Yaaxkumukia*: biogeography and descriptions of new species (Coleoptera: Rutelidae). *Annals of the Entomological Society of America* 99:1–6.
- Micó, E., M. A. Morón, and E. Galante. 2003.** New larval descriptions and biology of some New World Anomalini beetles (Scarabaeidae: Rutelinae). *Annals of the Entomological Society of America* 96:597–614.
- Micó, E., J. R. Verdú, and E. Galante. 2001.** Larval morphology of some Anisopliini grain beetles with a key to their larvae (Coleoptera: Scarabaeoidea: Rutelidae: Anomalinae). *European Journal of Entomology* 98:311–320.
- Miessen, G., and M. Cludts. 2002.** Les *Pachydema* Castelnau, 1832 nord-africaines des collections entomologiques de l'institut royal des Sciences naturelles de Belgique (I.R.Sc.N.B. - K.B.I.N.) (Coleoptera Scarabaeoidea Melolonthinae Pachydemini). *Bulletin de la Société Royale Belge d'Entomologie* 138:59–62.
- Mikšić, R. 1976.** *Monographie der Cetoniinae der Paläarktischen und Orientalischen Region*, volume 1. Forstinstitut in Sarajevo, Sarajevo, Yugoslavia.
- Miwa, Y. 1931.** A study on the lucanid-Coleoptera from the Japanese Empire 1. *Transactions of the Natural History Society of Formosa* 21:315–325.
- Mjöberg, E. 1917.** Results of Dr. E. Mjöberg's Swedish scientific expeditions to Australia 1910–1913. 14. Cetoniidae, Rutelidae, Passalidae, Chysomelidae: subfam. Sagrinae, Cassidinae, Hispinae. *Arkiv för Zoologi* 11:1–19.
- Montreuil, O. 2003.** *Tosevskiana* Pavičević, 1985, an enigmatic genus of European Melolonthinae Rhizotrogini removed from Pachydeminae (Coleoptera: Melolonthidae). *Annales de la Société Entomologique de France* 39:207–210.
- Morón, M. A. 1979.** Fauna de Coleópteros Lamellicornios de la Estación de Biología Tropical, “Los Tuxtlas”, Veracruz, Unam. México. *Anales del Instituto de Biología, Universidad Nacional Autónoma de México, Serie Zoología* 1:375–454.
- Morón, M. A. 1983.** A revision of the subtribe Heterosternina (Coleoptera, Melolonthidae, Rutelinae). *Folia Entomológica Mexicana* 55:31–101.
- Morón, M. A. 1987.** Adiciones a los Heterosternina (Coleoptera: Melolonthidae, Rutelinae). *Folia Entomológica Mexicana* 73:69–87.
- Morón, M. A. 1990.** Rutelini 1. Los Coleópteros de Mundo/The Beetles of the World 10:1–145.
- Morón, M. A. 1991.** Los escarabajos fitófagos, un ejemplo de la riqueza biótica de Mesoamérica (Coleoptera: Scarabaeoidea). *Giornale Italiano di Entomologia* 5:209–218.
- Morón, M. A. 1993.** *Catalogo de tipos depositados en la coleccion M. A. Morón Xalapa, Veracruz, Mexico (M-XAL) (Insecta, Coleoptera: Lamellicornia).* Sociedad Mexicana de Entomología, Xalapa, Mexico.

- Morón, M. A. 1994.** Fauna de Coleoptera Lamellicornia en las montañas del noreste de Hidalgo, Mexico. *Acta Zoológica Mexicana* 63:7–59.
- Morón, M. A. 1997.** Capítulo 2, Rutelinae. In: *Atlas de los Escarabajos de México; Coleoptera: Lamellicornia; Vol. I Familia Melolonthidae*. M. A. Morón, B. C. Ratcliffe, and C. Deloya (eds.). Sociedad Mexicana de Entomología, Xalapa, México.
- Morón, M. A., and J. Blackaller. 1997.** Melolonthidae y Scarabaeidae [pp. 227–243]. In: *Historia Natural de Los Tuxtlas*. E. González Soriano, R. Dirzo, and R. C. Vogt (eds.). Universidad Nacional Autónoma de México, México City, Mexico.
- Morón, M. A., C. Deloya, A. Ramírez-Campos, and S. Hernández-Rodríguez. 1998.** Fauna de Coleoptera Lamellicornia de la region de Tepic, Nayarit, Mexico. *Acta Zoológica Mexicana* 75:73–116.
- Morón, M. A., and H. F. Howden. 1992.** A second species of *Plesiosternus* Morón with notes on other Heterosternina (Coleoptera: Scarabaeidae: Rutelinae). *Coleopterists Bulletin* 46:15–19.
- Morón, M. A., and H. F. Howden. 2001.** New species in the genus *Dilophochila* Bates (Coleoptera: Melolonthidae: Rutelinae: Anomalini). *Coleopterists Bulletin* 55:51–64.
- Morón, M. A., and G. Nogueira. 2000.** Third stage instar larva and pupa of *Paraheterosternus lueddeckei* (Becker) (Coleoptera: Melolonthidae; Rutelinae). *Journal of the Kansas Entomological Society* 73:62–67.
- Morón, M. A., F. J. Villalobos, and C. Deloya. 1985.** Fauna de Coleopteros Lamellicornios de Boca del Chajul, Chiapas, Mexico. *Folia Entomológica Mexicana* 66:57–118.
- Morón-Ríos, A., and M. A. Morón. 2001.** La fauna de Coleoptera Melolonthidae de la reserva de la biósfera “El Triunfo”, Chiapas, México. *Acta Zoológica Mexicana* 84:1–25.
- Moser, J. 1911.** Neue Cremastochiliden von Afrika und Yunnan. *Annales de la Société Entomologique de Belgique* 55:134–144.
- Motschulsky, V. 1858.** Insectes du Japon. *Études Entomologiques* 6:25–41. [Dated 1857].
- Mulsant, E. 1842.** *Histoire Naturelle des Coléoptères de France. Lamellicornes*. Maison, Libraire, Paris, France.
- Mulsant, E. 1851.** Description de deux nouvelles espèces de Coléoptères de la tribu des Lamellicornes, dont l'une sert à former un nouveau genre dans la famille des Trogidiens. *Mémoires de l'Académie Nationale des Sciences, Belles-Lettres et Arts de Lyon. Classe de Sciences* 1:138–140.
- Mulsant, E., and C. Rey. 1870.** Tribu des Lamellicornes. *Annales de la Société d'Agriculture, Sciences et Industries de Lyon* (4)2:241–650.
- Mulsant, E., and C. Rey. 1871.** Tribu des Lamellicornes. *Annales de la Société d'Agriculture, Sciences et Industries de Lyon* (4)3:155–480.
- Newman, E. 1840.** Descriptions of some new species of coleopterous insects. *Magazine of Natural History* (series 2) 4:362–368.
- Newton, A. F. Jr., and M. K. Thayer. 1992.** Current classification and family-group names in Staphyliniformia (Coleoptera). *Fieldiana, Zoology* (New Series) 67:1–92.
- Nikolajev, G. V. 1970.** [Taxonomic position of groups included in the subfamily Geotrupinae (Col., Scarabaeidae)] [pp. 31–34]. In: *Materials of the Second Scientific Session of Young Specialists and PhD Candidates (Thesis of Lectures)*. Kazakhstan, Russia, [In Russian.]
- Nikolajev, G. V. 1990.** [The usage of the particularities of wing venation for clarification of the system of Lamellicornia beetles] [pp. 98–99]. In: *Advances of Entomology in USSR: Coleoptera. Proceedings of the X Meeting of the All-Soviet Entomology Society, Leningrad, September 11–15, 1989*. G. S. Medvedev and B. A. Korotyaev (eds.). USSR Academy of Sciences Zoology Institute, Leningrad, USSR, [In Russian.]
- Nikolajev, G. V. 1992.** [Taxonomic characters and generic composition of Mesozoic Scarabaeidae (Coleoptera)]. *Paleontologicheskii Zhurnal* 1992: 75–88. English translation: *Paleontological Journal* 26:96–111, 1992. [In Russian.]

- Nikolajev, G. V. 1995a.** [New data on the systematics of the subfamily Ochodaeinae (Coleoptera, Scarabaeidae)]. Zoologicheskii Zhurnal 74: 72–82. English translation: Entomological Review 75:113–123, 1996. [In Russian.]
- Nikolajev, G. V. 1995b.** [A new subfamily of lamellicorn beetles (Coleoptera, Scarabaeidae) from the Lower Cretaceous of Transbaikalia and its phylogenetic relationships]. Paleontologicheskii Zhurnal 1995(2), 147–151. English translation: Paleontological Journal 29:185–192, 1995. [In Russian.]
- Nikolajev, G. V. 1996.** [Lamellicorn beetle species (Coleoptera, Scarabaeidae) with multistriate elytra, from the Lower Cretaceous Baisa locality, Transbaikalia]. Paleontologicheskii Zhurnal 1996: 91–99. English translation: Paleontological Journal 30:217–224, 1996. [In Russian.]
- Nikolajev, G. V. 1998.** [Pleurostict Lamellicorn beetles (Coleoptera, Scarabaeidae) from the Lower Cretaceous of Transbaikalia]. Paleontologicheskii Zhurnal 1998: 77–84. English translation: Paleontological Journal 32:513–520, 1998. [In Russian.]
- Nikolajev, G. V. 1999a.** [On the polyphyly of the subfamily Penichrolucaninae (Coleoptera, Lucanidae), with the erection of the new monotypic tribe Brasilucanini]. Tethys Entomological Research 1999:171–172. [In Russian.]
- Nikolajev, G. V. 1999b.** [New data on the systematics of the scarab beetles of the subfamily Hybosorinae (Coleoptera, Scarabaeidae): the establishment of the new tribe comprising four monotypic South American genera, and description of some new taxa from the Lower Cretaceous of Transbaikalia]. Tethys Entomological Research 1999:173–182. [In Russian.]
- Nikolajev, G. V. 2000a.** [A new subfamily of Lamellicorn beetles (Coleoptera, Scarabaeoidea) from the lower Cretaceous of Transbaikalia and Mongolia, and its position within the superfamily]. Paleontologicheskii Zhurnal 2000:63–66. [In Russian.]
- Nikolajev, G. V. 2000b.** New subfamily of the stag beetles (Coleoptera: Scarabaeidae: Lucanidae) from the Mesozoic of Mongolia, and its position in the system of the superfamily. Paleontological Journal 34:S327–S330.
- Nikolajev, G. V. 2000c.** A review of species of the genus *Hemictenius* Rtt. (Coleoptera, Scarabaeidae, Pachydeminae), with the isolation of the new genus *Asiactenius*. Tethys Entomological Research 2:137–150.
- Nikolajev, G. V. 2002a.** [To possible assignment of a new genus of Lamellicorn beetles from the Lower Cretaceous of Mongolia to the subfamily Pleocominae]. Paleontologicheskii Zhurnal 2002: 51–55. English translation: Paleontological Journal 36:279–282, 2002. [In Russian.]
- Nikolajev, G. V. 2002b.** A description of the larva of the genus *Eubolbitus* Reitter (Coleoptera, Scarabaeidae, Bolboceratinae). Euroasian Entomological Journal 1:207–209. [In Russian.]
- Nikolajev, G. V. 2003.** [The taxonomic composition of the subfamily Bolboceratinae (Coleoptera, Scarabaeidae) from Palaearctic faunistic region]. Tethys Entomological Research 8:187–206. [In Russian.]
- Nikolajev, G. V. 2005a.** Omorgini (Coleoptera, Scarabaeidae, Troginae)—a new tribe of scarab beetles. Euroasian Entomological Journal 4:321–322. [In Russian.]
- Nikolajev, G. V. 2005b.** [Scaraboid beetles of the subfamily Glaphyrinae (Coleoptera, Scarabaeidae) from the Lower Cretaceous of Transbaikalia]. *Zhivotniy Mir Dal'nego Vostoka [Animal World of the Far East]* 5:69–78. [In Russian.]
- Nikritin, L. M. 1977.** Infraotryad Scarabaeiformia. In: *Mezozoiskie zhestkokrylye*. L. V. Arnol'di, V. V. Zherikhin, L. M. Nikritin, and A. G. Ponomarenko (eds.). Trudy Paleontologicheskogo Instituta Akademiya Nauk SSSR, 161(b):119–130.
- Ocampo, F. C. 2006.** Phylogenetic analysis of the scarab family Hybosoridae and monographic revision of the New World subfamily Anaicinae (Coleoptera: Scarabaeoidea). 3. Phylogenetic analysis of the subfamily Anaicinae (Coleoptera: Scarabaeoidea). Bulletin of the University of Nebraska State Museum 19:13–177.
- Ohaus, F. 1912a.** Revision der Adoretini. (Col. Lamell. Rutelin.). Deutsche Entomologische Zeitschrift 1912:141–156, 267–282, 411–426, 509–524, 625–643.
- Ohaus, F. 1912b.** Beiträge zur Kenntnis der Ruteliden. X. Stettiner Entomologische Zeitung 73:273–319, 1 plate.

- Ohaus, F. 1918.** Scarabaeidae: Euchirinae, Phaenomerinae, Rutelinae. *Coleopterorum Catalogus* 20:1–241. [Dated 1915.]
- Olivier, A. G. 1789.** No. 7 Hexodon [pp. 4]. In: *Entomologie, ou Histoire Naturelle des Insectes, avec Leurs Caractères Génériques et Spécifiques, leurs Description, leur Synonymie, et leur Figure Enluminée. Coléoptères*, volume 1. Baudouin, Paris, France.
- d'Orbigny, H. 1896.** Synopsis de aphodiens d'Europe et du basin de le Méditerranée. *L'Abeille Journal d'Entomology* 28:197–271.
- d'Orbigny, H. 1915.** Synopsis d'un genre nouveau d'Oniticellides (Scarabaeidae Coprini) special a Madagascar. *Annales de la Société Entomologique de France* 84:402–434.
- Ordóñez Reséndiz, M., and A. C. Deloya. 2004.** New Mexican state record for *Ataenius texanus* Harold (Coleoptera: Scarabaeidae: Aphodiinae, Eupariini). *Coleopterists Bulletin* 58:20.
- Pakaluk, J., S. A. Slipinski, and J. F. Lawrence. 1994.** Current classification and family-group names in Cucujoidea (Coleoptera). *Genus* 5:223–268.
- Parry, F. J. S. 1864.** A catalogue of lucanoid Coleoptera; with illustrations and descriptions of various new and interesting species. *Transactions of the Entomological Society of London (series 3)* 2:1–113.
- Parry, F. J. S. 1870.** A revised catalogue of the lucanoid Coleoptera; with remarks on the nomenclature, and descriptions of new species. *Transactions of the Entomological Society of London* 1870:53–118.
- Paucar-Cabrera, A. 2005.** A catalog and distributional analysis of the Rutelinae (Coleoptera: Scarabaeidae) of Ecuador. *Zootaxa* 948:1–92.
- Paulian, R. 1959.** Un nouveau coleoptere scarabeide de Madagascar type d'une nouvelle sous-famille. *Le Naturaliste Malgache* 10:39–46. [Dated 1958.]
- Paulian, R. 1984.** Les Orphnidae Américains (Coléoptères, Scarabaeoidea). *Annales de la Société Entomologique de France* 20:65–92.
- Paulian, R., and A. Descarpentries. 1982.** Insectes Coléoptères. Cetoniiidae Euchroina. 1. Systématique. *Fauna de Madagascar* 57:1–67.
- Pereira, F. S., and A. Martínez. 1956.** Algunas notas sinonimicas en Phanaeini (Col. Scarabaeidae, Coprinae). *Revista Brasileira de Entomologia* 5:229–239.
- Péringuey, L. 1901.** Descriptive catalogue of the Coleoptera of South Africa. Fam. Lucanidae. Fam. Scarabaeidae. Sub-families: Coprinae, Aphodiinae, Troginae, Chironinae, Geotrupinae, Hybosorinae, Orphninae, Dynastinae. *Transactions of the South African Philosophical Society* 12:1–560.
- Péringuey, L. 1902.** Descriptive catalogue of the Coleoptera of South Africa. Fam. Scarabaeidae. Sub-families: Rutelinae, Hopliinae. *Transactions of the South African Philosophical Society* 12:561–896.
- Péringuey, L. 1904.** Descriptive catalogue of the Coleoptera of South Africa. Fam. Lucanidae. Fam. Scarabaeidae. Sub-families: Sericinae, Melolonthinae, Trichiinae, Valginae, Cetoninae. *Transactions of the South African Philosophical Society* 13:1–288.
- Péringuey, L. 1907.** Descriptive catalogue of the Coleoptera of South Africa. Fam. Lucanidae. Fam. Scarabaeidae. Sub-families: Sericinae, Melolonthinae, Trichiinae, Valginae, Cetoninae. *Transactions of the South African Philosophical Society* 13:289–546.
- Petrovitz, R. 1968.** Neue *Tanyproctus*- und *Atanyproctus*-Arten (Pachydemini, Melolonthinae, Scarabaeidae). *Entomologische Arbeiten aus dem Museum Frey* 19:237–247.
- Philippi, R. A. 1866.** Einige Insekten von Chile. *Stettiner Entomologische Zeitung* 27:109–117.
- Pittino, R. 1985.** Insects of Saudi Arabia Coleoptera Scarabaeoidea: a revision of the family Aphodiidae. *Fauna of Saudi Arabia* 6:267–360. [Dated 1984.]
- Pittino, R., and G. Mariani. 1986.** A revision of the Old World species of the genus *Diastictus* Muls. and its allies (*Platyotomus* Muls., *Pleurophorus* Muls., *Afrodiastictus* n. gen., *Bordatius* n. gen.) (Coleoptera, Aphodiidae, Psammodiini). *Giornale Italiano di Entomologia* 3:1–165.

- Portevin, G. 1931.** Histoire Naturelle des Coléoptères de France. Tome II Polyphaga: Lamellicornia, Palpicornia, Diversicornia. Encyclopédie Entomologique 13:1–542.
- Potts, R. W. L. 1974.** Revision of the Scarabaeidae: Anomalinae 1. The genera occurring in the United States and Canada (Coleoptera). Pan-Pacific Entomologist 50:148–154.
- Potts, R. W. L. 1977a.** Revision of the Scarabaeidae: Anomalinae 2. An annotated checklist of *Anomala* for the United States and Canada (Coleoptera). Pan-Pacific Entomologist 53:34–42.
- Potts, R. W. L. 1977b.** Revision of the Scarabaeidae: Anomalinae 3. A key to the species of *Anomala* of America north of Mexico (Coleoptera). Pan-Pacific Entomologist 53:129–134.
- Pouillaude, I. 1916.** Les Cétonides Malgaches. Insecta Revue Illustrée d'Entomologie 6:49–75.
- Rakovič, M. 1987.** A revision of the genus *Odochilus* Harold with remarks on the tribal classification of the subfamily Aphodiinae (Coleoptera, Scarabaeidae). Acta Entomologica Bohemoslovaca 84:27–44.
- Ratcliffe, B. C. 1991.** The scarab beetles of Nebraska. Bulletin of the University of Nebraska State Museum 12:1–333.
- Ratcliffe, B. C., M. L. Jameson, and A. B. T. Smith. 2002.** Scarabaeidae Latreille 1802, chapter 34. In: *American Beetles*. Volume 2. R. H. Arnett, M. C. Thomas, P. E. Skelley, and J. H. Frank (eds.). CRC Press, Boca Raton, FL.
- Reichensperger, A. 1915.** Myrmekophilen und termitophilen aus Natal und Zululand. Meddelanden från Göteborgs Musei Zoologiska Afdelning 5:1–20.
- Reitter, E. 1892.** Bestimmungs-Tabelle der Lucaniden und coprophagen Lamellicornen des palaearktischen Faunengebietes. Verhandlungen des Naturforschenden Vereins in Brünn 24:1–230.
- Reyes Novelo, E., and M. A. Morón. 2005.** Fauna de Coleoptera Melolonthidae y Passalidae de Tzacacab y Conkal, Yucatán, México. *Acta Zoológica Mexicana* 21:15–49.
- Ritcher, P. O. 1966.** *White Grubs and Their Allies*. Oregon State University Press, Corvallis.
- Sabatinielli, G., and G. Pontuale. 1998.** Melolonthinae and Pachydeminae of Arabia (Coleoptera: Scarabaeoidea: Melolonthidae). *Fauna of Arabia* 17:107–146.
- Samouelle, G. 1819.** *The Entomologist's Useful Compendium*. Thomas Boys, London, U.K..
- Sanmartín, I. 2003.** Dispersion vs. vicariance in the Mediterranean: historical biogeography of the Palearctic Pachydeminae (Coleoptera, Scarabaeoidea). *Journal of Biogeography* 30:1883–1897.
- Sanmartín, I., and F. Martín-Piera. 2003.** First phylogenetic analysis of the subfamily Pachydeminae (Coleoptera, Scarabaeoidea, Melolonthidae): The Palearctic Pachydeminae. *Journal of Zoological Systematics and Evolutionary Research* 41:2–46.
- Saylor, L. W. 1935.** A new genus and two new species of Coleoptera from California (Scarabaeidae). Pan-Pacific Entomologist 11:132–134.
- Schaum, H. R. 1845.** Observations critiques sur la famille des lamellicornes méliophiles. *Annales de la Société Entomologique de France* 2:333–426, plate 10. [Dated 1844.]
- *Schaum, H. R. 1848.** *Verzeichnis der Lamellicornia Melitophila*. Stettin, Poland.
- Schenkling, S. 1921.** Scarabaeidae: Cetoniinae. *Coleopterorum Catalogus* 72:1–431.
- Schenkling, S. 1922.** Scarabaeidae: Trichiinae, Valginae. *Coleopterorum Catalogus* 75:1–58.
- Schmidt, A. 1910.** Coleoptera Lamellicornia, fam. Aphodiidae Genera Insectorum 110:1–155, 3 plates.
- Schmidt, A. 1916.** Namenänderungen und Beschreibung neuer Aphodiinen (Col.). *Archiv für Naturgeschichte* 82(A) 1:95–116.
- Schoch, G. 1894.** Ueber die Systematik der Cetoniden. Mittheilungen der Schweizerischen Entomologischen Gesellschaft 9:164–225.
- Schoch, G. 1895.** *Die Gattung und Species meiner Cetonidensammlung. I. Teil: Goliathidae, Gymnetidae, Madagassae, Schizorrhinidae*. Zürcher & Furrer, Zürich.
- Schönherr, C. J. 1817.** *Synonymia Insectorum, oder Versuch einer Synonymie aller bisher bekannten Insecten; nach Fabricii Systema Eleutheratorum etc. geordnet. Erster Band. Eleutherata oder Käfer. Dritter Theil*. Bruzelius, Upsala. pp 97–506.
- Scholtz, C. H. 1991.** Nomenclatural changes in the Ochodaeidae (Coleoptera: Scarabaeoidea). *Coleopterists Bulletin* 45:30.

- Scholtz, C. H., D. d'Hotman, A. V. Evans, and A. Nel. 1988.** Phylogeny and systematics of the Ochodaeidae (Insecta: Coleoptera: Scarabaeoidea). *Journal of the Entomological Society of South Africa* 51:207–240.
- Scopoli, J. A. 1763.** *Entomologia Carniolica Exhibens Insecta Carnioliae Indigena et Distributa in Ordines, Genera, Species, Varietates. Methodo Linnaeana*. Trattner, Vienna, Austria.
- Scopoli, J. A. 1777.** *Introductio ad Historiam Naturalem Sistens Genera Lapidum, Plantarum et Animalium Hactenus Detecta, Characteribus Essentialibus Donata, in Tribus Divisa, Subinde ad Leges Naturae*. Wolfgangum Gerle, Prague.
- Scriba, L. G. 1790.** Verzeichnis der Insekten in der Darmstadter Gegend. *Journal für die Liebhaber der Entomologie* 1:40–73.
- Semenov-Tian-Shanskij, A. 1889.** Diagnoses Coleopterorum novorum ex Asia Centrali et Orientali. *Horae Societatis Entomologicae Rossicae* 24:193–226.
- Semenov-Tian-Shanskij, A. 1895.** Coleoptera Asiatica nova VI. *Horae Societatis Entomologicae Rossicae* 29:336–362.
- Semenov-Tian-Shanskij, A., and A. Reichardt. 1925.** De novo peculiari Aphodiinorum genere, tribum propriam formante (Coleoptera, Scarabaeidae). *Revue Russe d'Entomologie* 19:83–88.
- Sharp, D. 1873.** Description de nouveaux genres et de nouvelles espèces de Coléoptères Lamellicornes. *Revue et Magasin de Zoologie* (3)1:262–273.
- Sharp, D. 1877.** Descriptions of some new forms of aberrant Melolonthini from Australia forming a distinct subtribe (Systelopides). *Annali del Museo Civico di Storia Naturale di Genova* 9:311–320.
- Sharp, D. 1899.** Insects, part II. In: *The Cambridge Natural History*, volume 6. S. F. Harmer and A. E. Shipley (eds.). MacMillan and Company, London, U.K.
- Sherborn, C. D. 1922.** *Index Animalium. Part I. Introduction, Bibliography and Index A-Aff.* The British Museum, London, U.K.
- Sigwalt, B. 1987.** *Promacropoides bertrandi*: nouveau genre et nouvelle espèce de Rutelidae Heterosternina d'Equateur (Coleoptera, Scarabaeoidea). *Revue Française d'Entomologie (N. S.)* 9:13–15.
- Skelley, P. E., and R. D. Gordon. 2002.** Scarabaeidae Latreille 1802: Aphodiinae Leach 1815, chapter 34-I. In: *American Beetles*. Volume 2. R. H. Arnett, M. C. Thomas, P. E. Skelley, and J. H. Frank (eds.). CRC Press, Boca Raton, FL.
- Smith, A. B. T., and A. V. Evans. 2005.** A supplement to the checklist of the New World chafers (Coleoptera: Scarabaeidae: Melolonthinae) with notes on their tribal classification. *Zootaxa* 1032:29–60.
- Smith, A. B. T., D. C. Hawks, and J. M. Heraty. 2006.** An overview of the classification and evolution of the major scarab beetle clades (Coleoptera: Scarabaeoidea) based on preliminary molecular analysis. *Coleopterists Society Monographs* 5:35–46.
- Smith, A. B. T., and M. A. Morón. 2003.** Revision and phylogenetic analysis of the Central American endemic genus *Phalangogonia* Burmeister (Coleoptera: Scarabaeidae: Rutelinae: Anoplognathini). *Systematic Entomology* 28:323–338.
- Smith, T. R. 2005.** Observations on the habitat preferences of *Auperia denominata* Chevrolat (Scarabaeidae: Aphodiinae: Eupariini). *Coleopterists Bulletin* 59:256–257.
- Soula, M. 1998.** Rutelini 2. Revision des Anthicheirina 1. Les Coléoptères du Monde 26:1–116.
- Stebnicka, Z. T. 1977.** A revision of the world species of the tribe Aegialiini. *Acta Zoologica Cracoviensia* 22:397–506.
- Stebnicka, Z. T. 1997.** A new genus and species of Eupariini from Argentina (Coleoptera: Scarabaeoidea: Aphodiinae). *Acta Zoologica Cracoviensia* 40:71–73.
- Stebnicka, Z. T. 1999.** *Lomanoxia* Martínez, 1951, and a new tribe Lomanoxiini with notes on comparative morphology (Coleoptera: Scarabaeoidea: Aphodiinae). *Acta Zoologica Cracoviensia* 42:279–286.
- Stebnicka, Z. T. 2001a.** A revision of the Neotropical species of *Saprosites* Redtenbacher, 1858 (Insecta: Coleoptera: Scarabaeidae: Aphodiinae: Eupariini). *Entomologische Abhandlungen Staatliches Museum für Tierkunde Dresden* 59:221–242.

- Stebnicka, Z. T. 2001b.** The New World species of *Ataenius* Harold, 1867. I. Revision of the *A. crenator*-group, *A. nugar*-group and *A. perforatus*-group (Coleoptera: Scarabaeidae: Aphodiinae: Eupariini). Acta Zoologica Cracoviensia 44:253–283.
- Stebnicka, Z. T. 2002a.** The New World species of *Ataenius* Harold, 1867. II. Revision of the West Indian *A. terminalis*-group (Coleoptera: Scarabaeidae: Eupariini). Acta Zoologica Cracoviensia 45:259–281.
- Stebnicka, Z. T. 2002b.** The New World Eupariini: revision of the genus *Auperia* Chevrolat, 1864 (= *Phalangochaeta* Martinez, 1952) (Coleoptera: Scarabaeidae: Aphodiinae). Revue Suisse de Zoologie 109:741–775.
- Stebnicka, Z. 2003a.** Revision and hypothetical phylogenetic analysis of the species of the New World genus *Ataeniopsis* (Coleoptera: Aphodiinae: Eupariini). European Journal of Entomology 100:101–113.
- Stebnicka, Z. 2003b.** The New World species of *Ataenius* Harold, 1867. III. Revision of the *A. imbricatus*-group sensu lato (Coleoptera: Scarabaeidae: Aphodiinae: Eupariini). Acta Zoologica Cracoviensia 46:219–249.
- Stebnicka, Z. T. 2003c.** The genus *Paraplesiataenius* Chalumeau, with descriptions of two new species from Brazil (Coleoptera: Scarabaeidae: Eupariini). Coleopterists Bulletin 57:444–450.
- Stebnicka, Z. T. 2004.** The New World species of *Ataenius* Harold, 1867. IV. Revision of the *A. strigicauda*-group (Coleoptera: Scarabaeidae: Aphodiinae: Eupariini). Acta Zoologica Cracoviensia 47:211–228.
- Stebnicka, Z. T. 2005a.** A new species of *Saprosites* Redtenbacher from North Island, New Zealand, with phylogenetic implications (Coleoptera, Aphodiinae, Eupariini). New Zealand Journal of Zoology 32:47–51.
- Stebnicka, Z. T. 2005b.** A second species of *Selviria* Stebnicka from Brazil (Coleoptera: Scarabaeidae: Eupariini). Coleopterists Bulletin 59:23–25.
- Stebnicka, Z. T., and P. K. Lago. 2005.** The New World species of *Ataenius* Harold, 1867. V. Revision of the *A. strigatus* group (Scarabaeidae: Aphodiinae: Eupariini). Insecta Mundi 19:55–83.
- Stebnicka, Z. T., and H. F. Howden. 1995.** Revision of Australian genera in the tribes Aphodiini, Aegialiini and Proctophanini (Coleoptera: Scarabaeidae: Aphodiinae). Invertebrate Taxonomy 9:709–766.
- Stebnicka, Z. T., and H. F. Howden. 1996.** Australian genera and species in the tribes Odontolochini, Psammodiini, Rhyparini, Stereomerini and part of the Eupariini (Coleoptera: Scarabaeidae: Aphodiinae). Invertebrate Taxonomy 10:97–170.
- Stephens, J. F. 1831.** Description of *Chiasognathus grantii*, a new lucanideous insect forming the type of an undescribed genus, together with some brief remarks upon its structure and affinities. Transactions of the Cambridge Philosophical Society 4:209–217.
- Strand, E. 1928.** Nomenclatorische Bemerkungen über einige Coleopteren-Gattungen. Entomologisches Nachrichtenblatt 2:2–3.
- Streubel, A. V. 1839.** Ueber die Stellung der Brachyelytren oder Staphylinen im natürlichen System (Ein Beitrag zur Classification der Käfer). Isis von Oken 1839:126–137.
- Tangelder, I. R. M., and J. Krikken. 1982.** Termitophilous scarabs of the tribe Corythoderini: a taxonomic review (Coleoptera: Aphodiidae). Zoologische Verhandlungen 194:1–114.
- Vincini, A. M., A. N. López, H. A. Alvarez-Castillo, D. M. Carmona, P. L. Manetti, and M. A. Morón. 2001.** Descripción de los estados inmaduros y la hembra de *Myloxenoides tandilensis* Martínez, 1975 (Coleoptera: Melolonthidae: Melolonthinae: Pachydemini). Elytron 14:39–52. [Dated 2000].
- Vulcano, M. A., A. Martínez, and F. S. Pereira. 1961.** Eurysternini, nueva tribu de Scarabaeinae (Col. Scarabaeidae). Actas y Trabajos del Primer Congreso Sudamericano de Zoología 3:267–271. [Dated 1960.]
- Vulcano, M. A., and F. S. Pereira. 1961.** A subfamilia Penichrolucaninae (Col. Lucanidae) representada em América. Studia Entomologica 4:471–480.
- Wallace, A. R. 1868.** A catalogue of the Cetoniidea of the Malayan Archipelago, with descriptions of the new species. Transactions of the Entomological Society of London (3)4:519–601.

- Wasmann, E. 1918.** Myrmecophile und termitophile Coleopteren aus Ostindien, hauptsächlich gesammelt von P. J. Assmuth S. J. II. Scarabaeidae. Wiener Entomologische Zeitung 37:1–23.
- Weber, F. 1801.** *Observationes Entomologicae, Continentes Novorum Quae Condidit Generum Characteres, et Nuper Detectarum Specierum Descriptiones.* Bibliopolii Academici Novi, Kiel, Germany.
- Westwood, J. O. 1834.** Descriptio generum nonnullorum novorum e familiâ lucanidarum, cum tabulâ synopticâ familiae notulis illustratâ. Annales des Sciences Naturelles. Zoologie et Biologie Animale (2)1:112–122, plate 7.
- Westwood, J. O. 1838.** Lucanidarum novarum exoticarum Descriptiones, cum Monographia Generum Nigidii et Figuli. Entomological Magazine 5:259–268.
- Westwood, J. O. 1841a.** Plate I. Descriptions of some Asiatic cornuted species of Cetoniidae, [pp. 1–6, plate I]. In: *Arcana Entomologica; or Illustrations of New, Rare, and Interesting Insects*, volume 1. William Smith, London, U.K.
- Westwood, J. O. 1841b.** Insectorum novorum centuria. Annals and Magazine of Natural History (series 1) 8:203–205.
- Westwood, J. O. 1842a.** *Maechidius*, MacL., a genus of Lamellicorn beetles, with descriptions and figures of some new genera belonging to the same tribe. Annals and Magazine of Natural History (series 1) 8:457–458.
- Westwood, J. O. 1842b.** Plate XIX. Descriptions of some Cetoniidae from tropical Africa [pp. 69–72, plate 19]. In: *Arcana Entomologica; or Illustrations of New, Rare, and Interesting Insects*, volume 1. William Smith, London, U.K.
- Westwood, J. O. 1842c.** Plates XXIX and XXX. On the goliathideous Cetoniidae of Asia [pp. 113–122, plates 29–30]. In: *Arcana Entomologica; or Illustrations of New, Rare, and Interesting Insects*, volume 1. William Smith, London, U.K.
- Westwood, J. O. 1842d.** Plate XXXII. Illustrations of some species of Cetoniidae from Madagascar [pp. 125–128, plate 32]. In: *Arcana Entomologica; or Illustrations of New, Rare, and Interesting Insects*, volume 1. William Smith, London, U.K.
- Westwood, J. O. 1842e.** Plates XXXIII, XXXIV, XXXV, and XXXVI. On the goliathideous Cetoniidae of Asia [pp. 129–141, plates 33–36]. In: *Arcana Entomologica; or Illustrations of New, Rare, and Interesting Insects*, volume 1. William Smith, London, U.K.
- Westwood, J. O. 1843.** Plates XLII, XLIII, and XLIV. On the goliathideous Cetoniidae of Africa [pp. 163–176, plates 42–44]. In: *Arcana Entomologica; or Illustrations of New, Rare, and Interesting Insects*, volume 1. William Smith, London, U.K.
- Westwood, J. O. 1845a.** Memoir on the Geotrupidae and Trogidae. Annals and Magazine of Natural History (series 1) 15:438–441.
- *Westwood, J. O. 1845b.** On some exotic species of Aphodiidae. Proceedings of the Entomological Society of London 6:xciii.
- Westwood, J. O. 1845c.** On the Lamellicorn beetles which possess exerted mandibles and labrum, and 10-jointed antennae (continued). Transactions of the Entomological Society of London 1:155–160.
- Westwood, J. O. 1848a.** On the Australian species of the Coleopterous genus *Bolboceras*, Kirby. Proceedings of the Linnean Society of London 1:365–366.
- Westwood, J. O. 1848b.** Descriptions of some new or imperfectly known species of *Bolboceras*. Proceedings of the Linnean Society of London 1:384–387.
- Westwood, J. O. 1855.** Descriptions of some new species of exotic Lucanidae. Transactions of the Entomological Society of London 2:197–221.
- Westwood, J. O. 1871.** Descriptions of some new exotic species of Lucanidae. Transactions of the Entomological Society of London 1871:353–374.
- Westwood, J. O. 1874.** *Thesaurus Entomologicus Oxoniensis; or, illustrations of new, rare, and interesting insects, for the most part contained in the collections presented to the University of Oxford by the Rev. F.W. Hope, M.A., D.C.L., F.R.S., &c. with forty plates from drawings by the author.* MacMillan and Co., London, U.K.
- Westwood, J. O. 1879.** A decade of new Cetoniidae. Transactions of the Entomological Society of London 1879:199–208.

- Wheeler, G. 1912.** On the dates of the publications of the Entomological Society of London. Transactions of the Entomological Society of London 1911:750–767.
- White, A. 1842.** Descriptions of some hemipterous insects of the section Heteroptera. Transactions of the Entomological Society of London 3:84–94.
- Wood-Mason, J. 1878.** Description of *Didrepanephorus bifalcifer*, the type of a new genus and species of Rutelidae, remarkable for the huge sickle-shaped mandibular horns of the males. Annals and Magazine of Natural History (series 5) 2:422–426.
- Woodruff, R. E. 1973.** The scarab beetles of Florida (Coleoptera: Scarabaeidae). Part 1. The Laparosticti (subfamilies: Scarabaeinae, Aphodiinae, Hybosorinae, Ochodaeinae, Geotrupinae, Acanthocerinae). Arthropods of Florida and Neighboring Land Areas 8:1–220.
- Zunino, M. 1984.** Sistematica generica dei Geotrupinae (Coleoptera, Scarabaeoidea: Geotrupidae), filogenesi della sottofamiglia e considerazioni biogeografiche. Bollettino del Museo Regionale di Scienze Naturali Torino 2:9–162.