

INSECTA MUNDI

A Journal of World Insect Systematics

0014

Checklist of the Aphodiini of Mexico, Central and South America (Coleoptera: Scarabaeidae: Aphodiinae)

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Date of Issue: 24 August 2007

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Insecta Mundi 0014: 1-14

Published in 2007 by

Center for Systematic Entomology, Inc.
P. O. Box 147100
Gainesville, FL 32604-7100 U. S. A.
<http://www.centerforsystematicentomology.org/>

Insecta Mundi is a journal primarily devoted to insect systematics, but articles can be published on any non-marine arthropod taxon. Manuscripts considered for publication include, but are not limited to, systematic or taxonomic studies, revisions, nomenclatural changes, faunal studies, book reviews, phylogenetic analyses, biological or behavioral studies, etc. **Insecta Mundi** is widely distributed, and referenced or abstracted by several sources including the Zoological Record, CAB Abstracts, etc.

As of 2007, **Insecta Mundi** is published irregularly throughout the year, not as a quarterly issues. As manuscripts are completed they are published and given an individual number. Manuscripts must be peer reviewed prior to submission, after which they are again reviewed by the editorial board to insure quality. One author of each submitted manuscript must be a current member of the Center for Systematic Entomology.

Managing editor: Paul E. Skelley, e-mail: skellep@doacs.state.fl.us

Production editor: Michael C. Thomas, e-mail: thomasm@doacs.state.fl.us

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ISSN 0749-6737

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Abstract. This preliminary checklist of Aphodiini south of the United States is prepared to provide published data for a future web-based checklist of all New World Aphodiinae. All species names are used in combination with their currently accepted generic name, creating many new combinations. A few genus-species combinations are discussed. New synonymies based on recent studies of type specimens are made: *Aphodius azteca* Harold = *Aphodius multimaculosus* Hinton; *Aphodius ornatus* Schmidt = *Aphodius magnopunctatus* Hinton; *Aphodius caracaensis* Petrovitz = *Aphodius brasiliicola* Balthasar; *Aphodius guatemalensis* Bates = *Aphodius striatipennis* Petrovitz; *Aphodius kuntzeni* Schmidt = *Aphodius amplinotum* Gordon and Howden = *Aphodius michiliensis* Deloya; *Aphodius bimaculosus* Schmidt = *Aphodius xalapensis* Galante et al.; *Aphodius caracanus* Balthasar = *Aphodius martinsi* Petrovitz; *Aphodius volxemi* Harold = *Aphodius squamifer* Petrovitz.

Introduction

Much research has been accomplished on New World Aphodiinae in recent years. Nomenclatorial changes have been proposed, new genera described, and progress made with the Eupariini (primarily by Z. T. Stebnicka in numerous papers), the Psammodiini (Gordon and Pittino 1992), and North American Aphodiini (Gordon and Skelley 2007). Other recent works include a review of Aphodiinae from southern South America (Smith and Skelley 2007), a review of *Liothorax* Motschulsky (M. Dellacasa et al. 2007c), a revision of *Cephalocyclus* M. Dellacasa et al. (M. Dellacasa et al. 2007a), and numerous other generic level works by M. Dellacasa, Gordon, and G. Dellacasa.

Giovanni Dellacasa et al. (2001) raised all subgenera of Aphodiini to genus level, but did not include a species list of new generic combinations or current placements for all species. Subsequently, many types have been studied, resulting in necessary changes in generic placement and previously unpublished synonymies.

One aspect of an NSF-PEET project headed by M. L. Jameson and B. C. Ratcliffe, University of Nebraska State Museum, is to produce a web-based checklist and key to genera for all New World scarabs with P. Skelley organizing the Aphodiinae section. This web-based work is not the place to propose new combinations or make nomenclatural changes. The checklist below has been prepared to

more accurately place Aphodiini of Mexico, Central and South America, and to clear up minor nomenclatorial problems.

This list is not meant to solve all presently known taxonomic concerns; it is not a full catalog and no new taxa are proposed. The primary purpose of this list is to update and validate generic combinations for species occurring in the region. Some taxa are questionably members of the New World fauna, or are tentatively placed within a genus. In the latter case, an “(s.l.)” [= *sensu lato*] is utilized to indicate the generic placement is questionable and under research.

List of Aphodiini of Mexico, Central and South America

Subtribe Aphodiina

Acanthaphodius Schmidt, 1909c

Acanthaphodius bruchi Schmidt, 1909c: 67, Argentina, Chile.

Agoliinus Schmidt, 1913

Agoliinus cruentatus (LeConte, 1878: 456) [*Aphodius*], Mexico, USA.

= *Aphodius snowi* Brown, 1929: 209.

Agoliinus plutonicus (Fall, 1907: 245) [*Aphodius*], Mexico (Sonora), USA.

Agrilinus Mulsant and Rey, 1870

Agrilinus (s.l.) *azteca* (Harold, 1863: 381) [*Aphodius*], Guatemala, Mexico.

= *Aphodius multimaculosus* Hinton, 1934a: 190, **new synonymy** (from type).

Agrilinus (s.l.) *chiapasensis* (Galante et al., 2003: 306) [*Aphodius*] El Salvador, Mexico, **new combination.**

Agrilinus (s.l.) *ornatus* (Schmidt, 1911b: 14) [*Aphodius*], Mexico, **new combination.**

= *Aphodius magnopunctatus* Hinton, 1934a: 191, **new synonymy** (from type).

Aphodius Illiger, 1798

Aphodius fimetarius (Linnaeus, 1758: 348) [*Scarabaeus*], Canada, Mexico, USA.

[See M. Dellacasa and G. Dellacasa (2006: 113) for a full synonymy.]

Blackburneus Schmidt, 1913

Blackburneus argentinensis (Schmidt, 1909e: 101) [*Aphodius*], Argentina, Uruguay, **new combination.**

Blackburneus caracaensis (Petrovitz, 1970: 228) [*Aphodius*], Argentina, Bolivia, Brazil, Venezuela, **new combination.**

= *Aphodius brasiliicola* Balthasar, 1971: 60, **new synonymy** (from type).

Blackburneus charmionus (Bates, 1887: 89) [*Aphodius*], Costa Rica, El Salvador, Mexico.

Blackburneus diminutus (Bates, 1887: 89) [*Aphodius*], El Salvador, Guatemala.

Blackburneus erythrinus (Bates, 1887: 89) [*Aphodius*], Panama.

Blackburneus furcatus (Schmidt, 1909a: 10) [*Aphodius*], Brazil.

Blackburneus guatemalensis (Bates, 1887: 88) [*Aphodius*], Mexico to Panama.

= *Aphodius striatipennis* Petrovitz, 1962: 111, **new synonymy** (from type).

Blackburneus indio (Petrovitz, 1973: 143) [*Aphodius*], Bolivia?, Brazil, **new combination.**

Blackburneus laxepunctatus (Schmidt, 1910: 356) [*Aphodius*], Argentina, Brazil, French Guyana, Paraguay, Peru, Suriname, Venezuela, **new combination.**

Blackburneus richteri (Schmidt, 1911a: 21) [*Aphodius*], Argentina, Bolivia, **new combination.**

Blackburneus (s.l.) *rubeolus* (Palisot de Beauvois, 1805: 90) [*Scarabaeus*], Canada, Mexico, USA.

= *Aphodius copronomys* Melsheimer, 1844: 136.

Blackburneus saylorea (Robinson, 1940: 147) [*Aphodius*], Mexico?, USA.

Blackburneus (s.l.) *saylori* (Hinton, 1934a: 192) [*Aphodius*], Mexico, **new combination.**

Blackburneus xanthus (Bates, 1887: 90) [*Aphodius*], Panama.

Calamosternus Motschulsky, 1859

- Calamosternus colimaensis* (Hinton, 1934b: 200) [*Aphodius*], Mexico.
 = *Aphodius nubilus* Hinton, 1934a: 188 (not *Aphodius nubilus* Panzer, 1798).
Calamosternus granarius (Linnaeus, 1767: 547) [*Scarabaeus*], cosmopolitan.
 [See M. Dellacasa and G. Dellacasa (2006: 116) for a full synonymy.]

Cephalocyclus M. Dellacasa, Gordon and G. Dellacasa, 1998

- Cephalocyclus bordati* M. Dellacasa, G. Dellacasa and Gordon, 2007a: 94, Mexico.
Cephalocyclus carmenae M. Dellacasa, G. Dellacasa and Gordon, 2007a: 95, Mexico.
Cephalocyclus cartagoensis M. Dellacasa, G. Dellacasa and Gordon, 2007a: 95, Costa Rica.
Cephalocyclus costaricensis M. Dellacasa, G. Dellacasa and Gordon, 2007a: 97, Costa Rica.
Cephalocyclus durangoensis (Bates, 1887: 91) [*Aphodius*], Mexico.
 = *Aphodius pugil* Balthasar, 1946: 55.
Cephalocyclus fuliginosus (Harold, 1863: 330) [*Aphodius*], Guatemala, Mexico.
Cephalocyclus gravidus (Harold, 1863: 330) [*Aphodius*], Mexico.
Cephalocyclus halffteri M. Dellacasa, G. Dellacasa and Gordon, 2007a: 105, Mexico.
Cephalocyclus hogeii (Bates, 1887: 90) [*Aphodius*], Guatemala, Mexico, USA?
 = *Aphodius transversus* Robinson, 1940: 145.
Cephalocyclus howdenorum M. Dellacasa, G. Dellacasa and Gordon, 2007a: 109, Mexico.
Cephalocyclus lagoi M. Dellacasa, G. Dellacasa and Gordon, 2007a: 110, Mexico.
Cephalocyclus luridiventris (Harold, 1862: 385) [*Aphodius*], Mexico.
Cephalocyclus mexicanus (Harold, 1862: 380) [*Aphodius*], Guatemala, Mexico.
 = *Aphodius omiltemius* Bates, 1889: 392.
Cephalocyclus ordonezi M. Dellacasa, G. Dellacasa and Gordon, 2007a: 116, Mexico.
Cephalocyclus potosinus M. Dellacasa, G. Dellacasa and Gordon, 2007a: 117, Mexico.
Cephalocyclus pullatus (Schmidt, 1913: 123) [*Aphodius*], Mexico.
Cephalocyclus puncticeps (Harold, 1862: 380) [*Aphodius*], Mexico.
Cephalocyclus rockefelleri M. Dellacasa, G. Dellacasa and Gordon, 2007a: 119, Mexico.
Cephalocyclus stebnickae Deloya and Ibáñez-Bernal, 2000: 320, Mexico.
Cephalocyclus villosipes (Harold, 1862: 384) [*Aphodius*], Mexico.

Cinacanthus Schmidt, 1913

- Cinacanthus crenicollis* (Fall, 1932: 189) [*Aphodius*], [Mexico?], USA.
 = *Aphodius spermophili* Gordon, 1973: 436.
Cinacanthus militaris (LeConte, 1858: 65) [*Aphodius*], Mexico, USA.

Coelotrachelus Schmidt, 1913

- Coelotrachelus burgosi* (Deloya and McCarty, 1992: 2) [*Aphodius*], Mexico, **new combination**.
Coelotrachelus kuntzeni (Schmidt, 1913: 140) [*Aphodius*], Mexico.
 = *Aphodius amplinotum* Gordon and Howden, 1973: 436, **new synonymy** (from type).
 = *Aphodius michiliensis* Deloya, 1991: 200, **new synonymy** (from type).
Coelotrachelus rudis (LeConte, 1878: 458) [*Aphodius*], Mexico, USA.
 = *Aphodius fenyesi* Van Dyke, 1947: 159.
Coelotrachelus symbius (Gordon and Howden, 1973: 438) [*Aphodius*], Mexico, **new combination**.
Coelotrachelus venustus (Schmidt, 1911a: 28) [*Aphodius*], Mexico, **new combination**.

Cryptoscatomaseter Gordon and Skelley, 2007

- Cryptoscatomaseter durangoi* (Gordon and Howden, 1973: 440) [*Aphodius*], Mexico, **new combination**.
Cryptoscatomaseter epulus (Gordon and Howden, 1973: 440) [*Aphodius*], Mexico, **new combination**.

Dellacasiellus Gordon and Skelley, 2007

- Dellacasiellus claudus* (Fall, 1932: 188) [*Aphodius*], Mexico, USA.

- Dellacasiellus concavus* (Say, 1823: 214) [*Aphodius*], Mexico, USA.
 = *Aphodius cressoni* Robinson, 1946: 51.
Dellacasiellus fucosus (Schmidt, 1916: 97) [*Aphodius*], Mexico, USA.
 = *Aphodius rubidus* LeConte, 1857: 41 (not *Aphodius rubidus* Olivier, 1789).
Dellacasiellus kirni (Cartwright, 1944: 131) [*Aphodius*], Mexico, USA.
Dellacasiellus pseudofucosus Gordon and Skelley, 2007: 497, Mexico, USA.
Dellacasiellus ruficlarus (Fall, 1932: 189) [*Aphodius*], Mexico, USA.
 = *Aphodius subcarinatus* Robinson, 1946: 50.

Diapterna Horn, 1887

- Diapterna dugesi* (Bates, 1887: 83) [*Aphodius*], Mexico.

Drepanocanthoides Schmidt, 1913

- Drepanocanthoides (s.l.) larreae* (Horn, 1887: 41) [*Aphodius*] Mexico, USA.
 = *Aphodius bifrons* Bates, 1887: 90.

Ferrerianus M. Dellacasa, G. Dellacasa, and Gordon 2007b

- Ferrerianus biimpressus* (Schmidt, 1909d: 177) [*Aphodius*], Paraguay.

Flaviellus Gordon and Skelley, 2007

- Flaviellus perfimbriatus* (Gordon, 1977b: 278) [*Aphodius*], Mexico, USA.
Flaviellus (s.l.) subtruncatus (LeConte, 1878: 457) [*Aphodius*], [Mexico?], USA.
 = *Aphodius rehni* Robinson, 1938: 109.

Geomyphilus Gordon and Skelley, 2007

- Geomyphilus (s.l.) barrerai* (Islas, 1956: 493) [*Aphodius*], Mexico, **new combination**.
Geomyphilus (s.l.) coronadoi (Islas, 1956: 495) [*Aphodius*], Mexico, **new combination**.
Geomyphilus (s.l.) macgregori (Islas, 1955: 223) [*Aphodius*], Mexico, **new combination**.
Geomyphilus (s.l.) pierai (Lobo and Deloya, 1996: 44) [*Aphodius*], Mexico, **new combination**.

Gonaphodiellus Schmidt, 1913

- Gonaphodiellus (s.l.) acutecernans* (Balthasar, 1960b: 57) [*Aphodius*], Bolivia, **new combination**.
Gonaphodiellus (s.l.) ataenioides (Hinton, 1938: 123) [*Aphodius*], Panama, **new combination**.
Gonaphodiellus bimaculosus (Schmidt, 1909b: 19) [*Aphodius*], Mexico, **new combination**.
 = *Aphodius xalapensis* Galante et al., 2003: 304, **new synonymy** (from description).
Gonaphodiellus (s.l.) caracanus (Balthasar, 1970: 250) [*Aphodius*], Brazil, **new combination**.
 = *Aphodius martinsi* Petrovitz, 1970: 227, **new synonymy** (from type).
Gonaphodiellus (s.l.) castanescens (Petrovitz, 1973: 145) [*Aphodius*], Brazil, Peru, **new combination**.
Gonaphodiellus (s.l.) chapini (Hinton, 1934a: 189) [*Aphodius*], Panama, **new combination**.
Gonaphodiellus (s.l.) columbicus (Harold, 1880: 36) [*Aphodius*], Colombia, Panama, Venezuela, **new combination**.
Gonaphodiellus ecuadoriensis (Petrovitz, 1961b: 444) [*Aphodius*], Ecuador.
Gonaphodiellus (s.l.) forsterianus (Balthasar, 1960a: 2) [*Aphodius*], Bolivia, Costa Rica, **new combination**.
Gonaphodiellus hoffmanni (Islas, 1946: 451) [*Aphodius*], Mexico, **new combination**.
Gonaphodiellus nigrinus (Schmidt, 1916: 115) [*Aphodius*], Peru, **new combination, new status**.
 [Described as variety of *A. pacatus* Harold, 1880.]
Gonaphodiellus opisthius (Bates, 1887: 92) [*Aphodius*], Costa Rica?, Guatemala, Mexico.
Gonaphodiellus pacatus (Harold, 1880: 37) [*Aphodius*], Colombia, Panama.
Gonaphodiellus sexguttatus (Schmidt, 1916: 114) [*Aphodius*], Colombia, Costa Rica, **new combination**.
Gonaphodiellus (s.l.) sincerus (Petrovitz, 1973: 142) [*Aphodius*], Brazil, **new combination**.
Gonaphodiellus (s.l.) volxemi (Harold, 1876: 93) [*Aphodius*], Brazil, **new combination**.

= *Aphodius squamifer* Petrovitz, 1970: 225, **new synonymy** (from type).

Haroldiellus Gordon and Skelley, 2007

Haroldiellus lansbergei (Harold, 1874: 179) [*Aphodius*], Mexico.

Haroldiellus sallei (Harold, 1863: 336) [*Aphodius*], Caribbean, Central America to USA, West Indies.

= *Aphodius freyi* Balthasar, 1941b: 164.

Imelda M. Dellacasa, Gordon and G. Dellacasa, 2002

Imelda constricticollis (Bates, 1889: 392), [*Aphodius*], Mexico.

Jalisco M. Dellacasa, Gordon and G. Dellacasa, 2004b

Jalisco plumipes M. Dellacasa, Gordon and G. Dellacasa, 2004b: 70, Mexico.

Labarrus Mulsant and Rey, 1870

Labarrus lividus (Olivier, 1789: 86) [*Scarabaeus*], [Mexico?], Panama, USA, nearly cosmopolitan.

[See M. Dellacasa and G. Dellacasa (2006: 124) for a full synonymy.]

Labarrus parnaguaensis (Petrovitz, 1961a: 108) [*Aphodius*], Argentina, Brazil, Paraguay, **new combination**.

Labarrus pseudolividus (Balthasar, 1941a: 148) [*Aphodius*], widespread in New World.

Liothorax Motschulsky, 1859

Liothorax alternatus (Horn, 1870: 129) [*Aphodius*] Canada, [Mexico?], USA.

= *Aphodius inermis* Robinson, 1940: 147.

= *Aphodius moclipsi* Hatch, 1971: 457.

Liothorax innexus (Say, 1835: 177) [*Aphodius*], Mexico.

= *Aphodius flavocinctus* Harold, 1860: 614.

Liothorax levatus (Schmidt, 1907b: 568) [*Aphodius*], Mexico.

= *Aphodius nigroclavus* Hinton, 1934a: 188.

Melinopterus Mulsant, 1842

Melinopterus (*s.l.*) *consentaneus* (LeConte, 1850: 225) [*Aphodius*], Canada, [Mexico?], USA.

Melinopterus prodromus (Brahm, 1790: 3) [*Scarabaeus*], Palearctic, introduced Guatemala and USA.

[See M. Dellacasa and G. Dellacasa (2006: 127) for a full synonymy.]

Mendidius Harold, 1868

Mendidius (*s.l.*) *aculeatus* (Robinson, 1940: 143) [*Aphodius*], Mexico, USA.

Neodiapterna G. Dellacasa, 1986

Neodiapterna erichsoni (Harold, 1861: 104) [*Aphodius*], Argentina, Brazil, Paraguay.

Neodiapterna tognoni (G. Dellacasa and M. Dellacasa, 1997: 1) [*Aphodius*], Bolivia, **new combination**.

Neotrichonotulus M. Dellacasa, Gordon and G. Dellacasa, 2004a

Neotrichonotulus inurbanus (Gordon and Howden, 1973: 442) [*Aphodius*], Mexico, USA.

Neotrichonotulus perotensis (Deloya and Lobo, 1996: 50) [*Aphodius*], Mexico.

Neotrichonotulus urangai (Islas, 1955: 225) [*Aphodius*], Mexico.

Nialaphodius Kolbe, 1908

Nialaphodius nigrita (Fabricius, 1801: 73) [*Aphodius*], worldwide in tropics and subtropics.

[See M. Dellacasa and G. Dellacasa (2006: 130) for a full synonymy.]

Orodealisoides Schmidt, 1913

Orodealisoides reflexus (Schmidt, 1910: 357) [*Aphodius*], Argentina.

Orodealisoides rugosiceps (Harold, 1859: 213) [*Aphodius*], Chile, Peru.

Oscarinus Gordon and Skelley, 2007

- Oscarinus bottimeri* (Cartwright, 1957: 56) [*Aphodius*], Mexico (Nuevo Leon), USA.
Oscarinus crassuloides (Fall, 1907: 243) [*Aphodius*], Mexico, USA.
Oscarinus indutilis (Harold, 1874: 178) [*Aphodius*], Guatemala, Mexico, **new combination**.
Oscarinus spiniclypeus (Hinton, 1934a: 190) [*Aphodius*], Mexico.

Otophorus Mulsant, 1842

- Otophorus haemorrhoidalis* (Linnaeus, 1758: 348) [*Scarabaeus*], Palearctic, Nearctic (introduced).
[See M. Dellacasa and G. Dellacasa (2006: 132) for a full synonymy.]

Oxyomus Dejean, 1833

- Oxyomus setosopunctatus* Schmidt, 1911b: 15, Mexico.

Paranimbus Schmidt, 1913

- Paranimbus longitarsis* (Harold, 1860: 615) [*Aphodius*], Bolivia, **new combination**.
Paranimbus penai (Petrovitz, 1970: 229) [*Aphodius*], Ecuador, **new combination**.
Paranimbus peruanus (Erichson, 1834: 237) [*Aphodius*], Bolivia, Peru.
Paranimbus zoiai (G. Dellacasa, 1990: 426) [*Aphodius*], Argentina, Chile, **new combination**.

Pardalosus Gordon and Skelley, 2007

- Pardalosus pardalis* (LeConte, 1857: 41) [*Aphodius*], Canada, [Mexico?], USA.
Pardalosus pseudopardalis Gordon and Skelley, 2007: 380, Mexico, USA.
Pardalosus (s.l.) pumilio (Schmidt, 1907a: 201) [*Aphodius*], Mexico, USA.
= *Aphodius pumilus* Horn, 1887: 50 (not *Aphodius pumilus* Quedenfeldt, 1884).
Pardalosus (s.l.) serval (Say, 1835: 177) [*Aphodius*], [Mexico?], USA.
= *Aphodius steinheili* Harold, 1869: 100.
= *Aphodius serval pennsylvanicus* Robinson, 1940: 141.

Pharaphodius Reitter, 1892

- Pharaphodius (s.l.) oleosus* (Harold, 1871: 260) [*Aphodius*], Mexico.

Planolinellus M. Dellacasa and G. Dellacasa, 2005

- Planolinellus vittatus* (Say, 1825: 191) [*Aphodius*], Canada, Mexico, Old World, USA.
[See M. Dellacasa and G. Dellacasa (2006: 136) for a full synonymy.]

Planolinoides M. Dellacasa and G. Dellacasa, 2005

- Planolinoides duplex* (LeConte, 1878: 454) [*Aphodius*], Canada, [Mexico?], USA.
Planolinoides neotomae (Fall, 1907: 243) [*Aphodius*], Mexico, USA.

Planolinus Mulsant and Rey, 1870

- Planolinus tenellus* (Say, 1823: 213) [*Aphodius*] Canada, [Mexico?], USA.

Pleuraphodius Schmidt, 1913

- Pleuraphodius vespuccii* (Petrovitz, 1972: 162) [*Aphodius*], Brazil, **new combination**.

Podotenus Schmidt, 1913

- Podotenus gracilipes* (Harold, 1867: 279) [*Aphodius*], Chile, Western Australia.

Pseudagolius Schmidt, 1913

- Pseudagolius (s.l.) bicolor* (Say, 1823: 212) [*Aphodius*], [Mexico?], USA.
= *Aphodius comanchi* Robinson, 1940: 146.
Pseudagolius caballeroi (Islas, 1946: 453) [*Aphodius*], Mexico, **new combination**.
Pseudagolius coloradensis (Horn, 1870: 130) [*Aphodius*], Canada, Mexico, USA.
= *Aphodius flohri* Bates, 1887: 86.

Pseudagolius warneri Gordon and Skelley, 2007: 315, Mexico, USA.

Pseudogonaphodiellus M. Dellacasa, Gordon and G. Dellacasa, 2007d

Pseudogonaphodiellus zdzislawae M. Dellacasa, Gordon and G. Dellacasa, 2007d: 140, Mexico.

Pseudopodotenus G. Dellacasa, 1992

Pseudopodotenus fulviventris (Fairmaire and Germain, 1860: 268) [*Aphodius*], Chile.

Rugaphodius Gordon and Skelley, 2007

Rugaphodius rugatus (Schmidt, 1907a: 202) [*Aphodius*], Mexico, USA.

= *Aphodius rugifrons* Horn 1871: 295 (not *Aphodius rugifrons* Aubé, 1850).

Schaefferellus Gordon and Skelley, 2007

Schaefferellus arizonensis (Schaeffer, 1907: 61) [*Aphodius*], Mexico, USA.

Stenotothorax Schmidt, 1913

Stenotothorax sparsus (LeConte, 1878: 458) [*Aphodius*], Mexico, USA.

= *Aphodius blaisdelli* Fall, 1905: 129.

= *Aphodius sparsus sheldoni* Barrett, 1932: 172.

Symphodon Schmidt, 1913

Symphodon anomalum (Harold, 1874: 185) [*Aphodius*], Chile.

Tetraclipeoides Schmidt, 1913

Tetraclipeoides (s.l.) aemulus (Horn, 1887: 38) [*Aphodius*], Mexico, USA.

= *Aphodius fortuneus* Fall, 1932: 187.

Tetraclipeoides dentiger (LeConte, 1858: 65) [*Aphodius*], Mexico, USA.

Tetraclipeoides (s.l.) giulianii (Gordon, 1977a: 232) [*Aphodius*], Mexico, USA.

Tetraclipeoides (s.l.) quadridentatus Harold, 1861: 107 [*Aphodius*], Cuba, **new combination.**

Trichaphodiellus Schmidt, 1913

Trichaphodiellus brasiliensis (Laporte, 1840: 85) [*Aphodius*], Bolivia, Brazil, Colombia, Ecuador, [Mexico?], Peru, Venezuela.

= *Aphodius excellens* Endrödi, 1964: 187.

Trichaphodius Schmidt, 1913

Trichaphodius quadripartitus (Petrovitz, 1973: 146) [*Aphodius*], Brazil, **new combination.**

Trichonotuloides Balthasar, 1945

Trichonotuloides glyptus (Bates, 1887: 86) [*Aphodius*], Mexico.

Trichonotuloides latecrenatus (Bates, 1887: 86) [*Aphodius*], Guatemala.

= *Aphodius fossulatipennis* Balthasar, 1945: 44.

Xenoheptaulacus Hinton, 1934c

Xenoheptaulacus tricostatus (Harold, 1869: 101) [*Oxyomus*], Colombia, Panama, Venezuela.

= *Xenoheptaulacus carinator* Hinton, 1934c: 614.

Xeropsamobeus Saylor, 1937

Xeropsamobeus (s.l.) asellus (Schmidt, 1907a: 210) [*Aphodius*], Mexico (Durango), USA.

= *Aphodius nanus* Horn, 1887: 55 (not *Aphodius nanus* Fairmaire, 1860).

Xeropsamobeus desertus (Van Dyke, 1918: 10) [*Psammodyus*], Mexico, USA.

Xeropsamobeus (s.l.) scabriceps (LeConte, 1878: 457) [*Aphodius*], Mexico, USA.

Subtribe Didactyliina

Aidophus Balthasar, 1963

Aidophus cabrali (Petrovitz, 1973: 148) [*Didactylia*], Brazil.

Aidophus coheni Stebnicka and Skelley, 2005: 40, Ecuador.

Aidophus flaveolus (Harold, 1867: 280) [*Aphodius*], Argentina, Chile, Mexico?

Aidophus flechtmani Stebnicka and M. Dellacasa, 2001: 202 (in M. Dellacasa et al., 2001), Brazil.

Aidophus impressus (Petrovitz, 1970: 230) [*Didactylia*], Brazil.

Aidophus infuscatopennis (Schmidt, 1909a: 12) [*Aphodius*], Argentina, Bolivia, Brazil, Peru, Paraguay, Uruguay.

= *Aphodius* (*Aidophus*) *paraguayanus* Balthasar, 1963: 279.

Aidophus kolbei (Schmidt, 1911a: 36) [*Didactylia*], Bolivia, Uruguay.

Aidophus notatus (Harold, 1859: 211) [*Aphodius*], Colombia, Guyana, Mexico, Panama, Venezuela, USA?

Aidophus panamensis (Harold, 1859: 212) [*Aphodius*], Panama, Venezuela?

Aidophus pella (Balthasar, 1960a: 1) [*Aphodius*], Bolivia.

Subtribe Proctophanina

Australaphodius Balthasar, 1942

Australaphodius frenchi (Blackburn, 1892: 35) [*Aphodius*], Australia, Chile, Mexico, New Zealand, South Africa, USA.

= *Aphodius ambiguus* Boheman, 1858: 51 (not *Aphodius bimaculatus* "var" *ambiguus* Mulsant, 1842).

= *Aphodius brevitarsis* Peringuey, 1901: 388 (not *Aphodius brevitarsis* Reitter, 1894).

= *Aphodius tarsalis* Schmidt, 1907a: 201.

= *Aphodius* (*Australaphodius*) *melbournicus* Balthasar, 1942: 203.

Discussion

Aphodius barrerai, *Aphodius coronadoi*, and *Aphodius pierai* (all from Mexico) were placed in *Platyderides* Schmidt by various authors. *Platyderides* is an Old World genus with no New World members (G. Dellacasa and Gordon 1988, Gordon and Skelley 2007). Thus, all New World taxa previously assigned to '*Platyderides*' need to be placed in some other genus to conform to current concepts. At present, these species (plus *Aphodius mcgregori*) seem most similar to members of *Geomyphilus*, and are tentatively placed in the genus pending further study.

Aphodius vespucii (from Brazil) was most recently placed in the subgenus *Pleuraphodius* in the catalog of M. Dellacasa (1988). *Pleuraphodius* is now considered to be restricted to the Old World (G. Dellacasa et al. 2001). However, the name appears to be based on a mislabeled specimen and should probably be removed from the list of New World taxa.

Aphodius quadridentatus (from Cuba), has been placed in the subgenus *Tetraclipeoides* only because it has four clypeal teeth. This character is known to be variable across and within genera, and the concept of *Tetraclipeoides* is now narrowly restricted (Gordon and Skelley 2007). *Aphodius quadridentatus* is tentatively retained in *Tetraclipeoides* pending study of the type.

Aphodius quadripartitus (from Brazil) was most recently placed in the subgenus *Trichaphodius* in the catalog of M. Dellacasa (1988). *Trichaphodius* appears to be restricted to the Old World (G. Dellacasa et al. 2001). However, the species name may be based on a mislabeled specimen and is tentatively retained in *Trichaphodius* pending study of the type.

Mexican records for the North American taxa *Flaviellus subtruncatus*, *Liothorax alternatus*, *Melinopterus consentaneus*, *Pardalosus pardalis*, *Pardalosus serval*, *Planolinoides duplex*, *Planolinus tenellus*, and *Pseudagolius bicolor* are all questionable. These records may be based on misidentifications, mislabeling, or an old concept of the species. See Gordon and Skelley (2007) for discussion of their distributions. *Trichaphodiellus brasiliensis* is primarily a South American species, making the Mexican record for this species questionable.

Labarrus lividus has been found around the world, and is reported from many countries in the New World. However, recent study reveals the vast majority of New World specimens to be *L. pseudolividus*, and some *L. parnaguaensis*. Presently, there are a few confirmed collections of *L. lividus* in the New World from the United States and Panama. See Petrovitz (1961a), M. Dellacasa et al. (2002), and Gordon and Skelley (2007) for discussion of this genus and keys to species.

Acknowledgments

We thank M. J. Paulsen, Florida State Collections of Arthropods, Gainesville, FL, and W. B. Warner, Chandler, AZ; M. C. Thomas and W. N. Dixon, Florida Department of Agriculture and Consumer Services, Gainesville, FL, for editorial reviews of the manuscript. Partial support to PES was provided through an NSF/PEET grant (DEB-0118669) to M. L. Jameson and B. C. Ratcliffe, University of Nebraska State Museum, Lincoln, NE-USA. This is Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Entomology Contribution No. 1079.

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