European Journal of Taxonomy 1038: 1–225
https://doi.org/10.5852/ejt.2026.1038.3175

europeanjournaloftaxonomy.eu
ISSN 2118-9773
2026 · Gama E.R.R. *et al.*

Received: 28 August 2024 • *Accepted: 12 August 2025* • *Published: 2 February 2026*

Topic editor: Tony Robillard • *Section editor: Maxwell Barclay* • *Desk editor: Pepe Fernández*

Monograph

urn:lsid:zoobank.org:pub:09FBBB01-5A0B-4329-A627-3946B9814D44

Identification guide to the Aphodiinae (Coleoptera: Scarabaeidae) of Brazil

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Abstract. An identification guide for the Aphodiinae of Brazil is provided. Aphodiinae are a subfamily of Scarabaeidae comprising small and saprophagous beetles normally recognizable by the elongated body, clypeus covering the mouth parts and metatibiae with two apical spurs. In Brazil, the subfamily is composed of 40 genera and 148 species. Through the analysis of material in collections and literature, an identification guide for the subfamily in Brazil was written. Dichotomous keys for all genera and species are provided. Three genera (*Amerilochus* Skelley, 2007, *Saprolochus* Stebnicka & Galante, 2007 and *Stebnickiella* Skelley, 2007) and 15 species (*Blackburneus surinamensis* Dellacasa, Dellacasa & Gordon, 2011, *Blackburneus thomasi* Dellacasa, Dellacasa & Gordon, 2011, *Labarrus lividus* (Olivier, 1789), *Aidophus kolbei* (Schmidt, 1911), *Ataeniopsis haroldi* (Steinheil & Stroblel, 1872), *Batesiana chamorroi* Skelley & Vaz-de-Mello, 2022, *Iarupea lopeteguii* Martínez, 1953, *Lomanoxia canthonopsis* Skelley & Howden, 2003, *Lomanoxoides bitubericollis* (Schmidt, 1909), *Odontolytes guayara* (Stebnicka, 2002), *Odontolytes loretoensis* (Stebnicka, 2002), *Tanyana guyanaensis* (Stebnicka, 2003), *Amerilochus cinereus* Skelley, 2007, *Saprolochus tridentatus* Skelley, 2007, *Stebnickiella zosterixys* Skelley, 2007) are considered new records for the country. *Ataenius bolivarensis* Stebnicka, 2007 and *Cartwrightia cartwrighti* Cartwright, 1967 are tentatively considered as new records. *Ataenius* Harold, 1867 is treated at species group level only. *Platytomus longulus* (Cartwright, 1948) and *Platytomus freudei* (Balthasar, 1960) are treated as a species complexes. The known distributions of many species are updated.

Keywords. Identification guide, dichotomous keys, Aphodiinae, *Ataenius*.

Gama E.R.R., Skelley P.E. & Vaz-de-Mello F.Z. 2026. Identification guide to the Aphodiinae (Coleoptera: Scarabaeidae) of Brazil. *European Journal of Taxonomy* 1038: 1–225. https://doi.org/10.5852/ejt.2026.1038.3175

Introduction

Aphodiinae Leach, 1815 are a subfamily of Scarabaeidae Latreille, 1802 comprised of small and saprophagous beetles (Stebnicka 2001b; Bouchard *et al.* 2011). The subfamily has a world-wide distribution and over 3500 species are currently described (Stebnicka 2001b; Schoolmeesters 2023). Aphodiinae can normally be recognized by their elongate body, dilated clypeus covering the mouth parts, antenna with nine antennomeres with a club formed by the last three antennomeres, metatibiae with two apical spurs and abdomen with six ventrites (Schmidt 1922; Skelley & Gordon 2002).

While the subfamily largely includes saprophagous beetles, many species are coprophagous (Stebnicka 2001b; Dellacasa *et al.* 2010a). Coprophagous Aphodiinae are mainly associated with mammal dung, feeding and nesting in the faecal matter or in the soil below (Yoshida & Katakura 1992; Verdú & Galante 1999; Stebnicka 2001b). The group can also be found under wood-bark, associated with fungi, some have been reported feeding on dung of xylophagous beetles such as Passalidae Leach, 1815 (Chapin 1940; Stebnicka 2000, 2001a). Many groups have been found in termite and ant nests (Tangelder & Krikken 1982; Krikken & Huijbregts 1987; Stebnicka 2007a).

The knowledge of South American Aphodiinae has been greatly increased in recent years, with many problematic groups, such as *Ataenius* Harold, 1867, being reviewed and new taxa described (e.g., Stebnicka 2007b; Dellacasa *et al.* 2011, 2012; Skelley & Vaz-de-Mello 2020). These affect our knowledge of the subfamily in Brazil. Currently there are 148 species and 40 genera recorded for Brazil (Gama & Vaz-de-Mello 2024). Yet, the subfamily remains unexplored and only superficially identified by Brazilian researchers when compared to other Scarabaeidae (Rodrigues *et al.* 2010; Almeida *et al.* 2015; Cajaiba *et al.* 2017, 2018; Oliveira *et al.* 2021; Rossetto *et al.* 2021).

This deficiency might be attributed to the lack of identification keys directed at the Brazilian fauna. When there is no specialist or reliable reference collection to help with the identification, we must look for specialized literature to correctly determine the specimens at hand (Papavero 1994). The only comprehensive generic key for American Aphodiinae was written by Skelley (2008). Unfortunately, the key does not take into consideration groups described or reviewed after its creation (Skelley 2008; Dellacasa *et al.* 2010a, 2011, 2012). On top of that, specific keys are scattered across many, sometimes old, papers which only makes determining species even more difficult (e.g., Cartwright 1948, 1955; Stebnicka 1999a, 1999b, 2007a, 2009).

With these issues in mind, the purpose of this study was to create a comprehensive identification guide that compiles all of the most recent taxonomic papers on Aphodiinae with a focus on the fauna reported for Brazil. We believe the knowledge of the taxa already reported for the country can be expanded and that new records can be made. Our hope is that this will help and inspire additional studies on the subfamily in the country.

Material and methods

The list of Aphodiinae species in Brazil was created based on previous literature records (Supp. file 2), and augmented with newly examined materials. Information on sexual dimorphism and known collecting methodology for each species was specified based on the available literature (e.g., Stebnicka 2009) and on the analyzed material. The construction of the dichotomous keys and diagnoses was made using the available literature and observations from the previously identified analyzed specimens. Dichotomous keys for species are provided for all genera, except *Ataenius*, which due to its diversity is here treated at species group level only. The Portuguese version of all keys can be found in Supp. file 1. Identification of previously unidentified specimens was made using the available literature and by comparison with the reference collections (see list of Repositories). Some species were not available for study in the consulted

collections. For these species, the information presented here (diagnostic characters and distribution) follows the available literature (see remarks under those species).

Pictures of the species were taken using a LEICA M205C stereo microscope. Image plates were constructed using the GIMP software. Whenever possible, photographs of type specimens of species not available for the present work were requested. Distributional maps were made with the information present on the labels of the analyzed material and the available literature. When no coordinates were available, the software Google Earth was used to acquire the approximate coordinates of the collecting localities. Distributional maps were plotted using QGIS software ver. 3.40.1 (QGIS Development Team 2024).

Measurements

Measurements are presented in millimetres. Information on body length of each species was taken from original descriptions or from the most recent published taxonomic work (e.g., Harold 1867a; Stebnicka 2009).

Repositories

CEMT = Coleção Entomológica de Mato Grosso Eurides Furtado, Universidade Federal de Mato Grosso, Cuiabá, Brazil (Fernando Zagury Vaz-de-Mello)
FSCA = GRSCICOLL ID 2931, Florida State Collection of Arthropods, Gainesville, Florida, United States of America (Paul E. Skelley)
INPA = GRSCICOLL ID 14793, Instituto Nacional de Pesquisas da Amazônia, Manaus, Amazonas, Brazil (José Albertino Rafael & Marcio Oliveira)
NRM = GRSCICOLL ID 3100, Swedish Museum of Natural History, Stockholm, Sweden (Johannes Bergsten)

Terminology

The terminology for morphological characters follows Dellacasa *et al.* (2001a) and Stebnicka (2009) with a few modifications made following Lawrence *et al.* (2011). For example, Stebnicka (2009) refers to the visible sterna as sternum or sternites, here we refer to these structures as ventrites following Lawrence *et al.* (2011).

Results

List of Aphodiinae species in Brazil

Class Insecta Linnaeus, 1758
Order Coleoptera Linnaeus, 1758
Suborder Polyphaga Emery, 1886
Superfamily Scarabeoidea Latreille, 1802
Family Scarabaeidae Latreille, 1802
Subfamily Aphodiinae Leach, 1815
Tribe Aphodiini Leach, 1815
Subtribe Aphodiina Leach, 1815

Genus ***Blackburneus*** Schmidt, 1913

Blackburneus amazonicus Dellacasa, Dellacasa & Gordon, 2011.
Blackburneus argentinensis (Schmidt, 1909)
= *Aphodius argentinensis* Schmidt, 1909d: 101
= *Aphodius* (*Blackburneus*) *argentinensis* – Schmidt, 1913: 133
= *Blackburneus argentinensis* – Skelley *et al*. 2007: 2

Blackburneus caracaensis (Petrovitz, 1970)
= *Aphodius* (*Blackburneus*) *caracaensis* – Petrovitz, 1970: 228
= *Aphodius* (*Blackburneus*) *brasilicola* Balthasar, 1971: 60
= *Blackburneus caracaensis* – Skelley *et al*. 2007: 2
Blackburneus furcatus (Schmidt, 1909)
= *Aphodius furcatus* Schmidt, 1909a: 10
= *Aphodius* (*Blackburneus*) *furcatus* – Schmidt 1913: 137
= *Blackburneus furcatus* – Paulian 1942: 75
Blackburneus indio (Petrovitz, 1973)
= *Aphodius* (*Blackburneus*) *indio* Petrovitz, 1973: 143
= *Blackburneus indio* – Skelley *et al*. 2007: 2
Blackburneus laxepunctatus (Schmidt, 1910)
= *Aphodius laxepunctatus* Schmidt, 1910: 356
= *Aphodius* (*Blackburneus*) *laxepunctatus* – Schmidt 1913: 137
= *Blackburneus laxepunctatus* – Skelley *et al*. 2007: 2
Blackburneus richteri (Schmidt, 1911)
= *Aphodius richteri* Schmidt, 1911b: 21
= *Aphodius* (*Blackburneus*) *richteri* – Schmidt 1913: 138
= *Blackburneus richteri* – Skelley *et al*. 2007: 2
Blackburneus surinamensis Dellacasa, Dellacasa & Gordon, 2011 (new record)
Blackburneus thomasi Dellacasa, Dellacasa & Gordon, 2011 (new record)

Genus ***Gonaphodioides*** Dellacasa, Dellacasa & Gordon, 2012

Gonaphodioides chapini (Hinton, 1934)
= *Aphodius chapini* Hinton, 1934b: 189
= *Aphodius ataenioides* Hinton, 1938: 123
= *Aphodius* (*Blackburneus*) *ataenioides* – Dellacasa 1987: 229
= *Aphodius* (*Blackburneus*) *chapini* – Dellacasa 1987: 351
= *Aphodius* (*Blackburneus*) *castanescens* Petrovitz, 1973: 145
= *Gonaphodiellus* (s. lat.) *chapini* – Skelley *et al.* 2007: 4
= *Gonaphodioides chapini* – Dellacasa *et al*. 2012: 17
Gonaphodioides sincerus (Petrovitz, 1973)
= *Aphodius* (*Gonaphodiellus*) *sincerus* Petrovitz, 1973: 142
= *Gonaphodiellus* (s. lat.) *sincerus* – Skelley *et al.* 2007: 4
= *Gonaphodioides sincerus* – Dellacasa *et al*. 2012: 17

Genus ***Labarrus*** Mulsant & Rey, 1870

Labarrus lividus (Olivier, 1789) (new record)
[See Dellacasa *et al.* 2016 for full synonymy]
Labarrus parnaguaensis (Petrovitz, 1961)
= *Aphodius* (*Nialus*) *parnaguaensis* Petrovitz, 1961b: 108
= *Aphodius* (*Labarrus*) *parnaguaensis* – Dellacasa 1987: 242
= *Labarrus parnaguaensis* – Bordat 2016: 29
Labarrus pseudolividus (Balthasar, 1941)
= *Aphodius cinticulus* Hope, 1847: 284
= *Aphodius* (*Nialus*) *pseudolividus* Balthasar, 1941c: 148
= *Aphodius* (*Nialus*) *lividus pseudolividus* – Endrödi & Rakovič 1981: 47
= *Aphodius* (*Labarrus*) *pseudolividus* – Dellacasa 1987: 242
= *Labarrus pseudolividus* – Dellacasa 2002: 170

Genus ***Neodiapterna*** Dellacasa, 1986

Neodiapterna erichsoni (Harold, 1861)
= *Aphodius erichsoni* Harold, 1861: 104
= *Aphodius* (*Diapterna*) *erichsoni* – Kozhantshikov 1913: 262
= *Aphodius* (*Neodiapterna*) *erichsoni* – Dellacasa 1987: 244
= *Neodiapterna erichsoni* – Dellacasa *et al*. 2001a: 200

Genus ***Neotrichaphodioides*** Dellacasa, Dellacasa & Skelley, 2010

Neotrichaphodioides caracanus (Balthasar, 1970)
= *Aphodius* (*Gonaphodiellus*) *caracanus* Balthasar, 1970: 250
= *Gonaphodiellus* (*Gonaphodiellus*) *martinsi* Petrovitz, 1970: 227
= *Neotrichaphodioides caracanus* – Dellacasa *et al*. 2010b: 3
Neotrichaphodioides volxemi (Harold, 1876)
= *Aphodius Van Volxemi* Harold, 1876: 93
= *Aphodius volxemi* – Blackwelder 1944: 213
= *Aphodius* (*Trichaphodius*) *volxemi* – Schmidt 1913: 136
= *Aphodius* (*Gonaphodiellus*) *squamifer* Petrovitz, 1970: 225
= *Neotrichaphodioides volxemi* – Dellacasa *et al*. 2010b: 5

Genus ***Nialaphodius*** Kolbe, 1908

Nialaphodius nigrita (Fabricius, 1801)
[See Dellacasa *et al.* 2016 for full synonymy]

Genus ***Pleuraphodius*** Schmidt, 1913

Pleuraphodius vespuccii (Petrovitz, 1972)
= *Aphodius vespuccii* Petrovitz, 1972: 162
= *Pleuraphodius vespucci* – Skelley *et al.* 2007: 6

Genus ***Trichaphodiellus*** Schmidt, 1913

Trichaphodiellus brasiliensis (Castelnau, 1840)
= *Aphodius brasiliensis* Castelnau, 1840: 65
= *Aphodius* (*Trichaphodiellus*) *brasiliensis* – Schmidt 1913: 167
= *Aphodius* (*Nialus*) *excellens* Endrödi, 1964: 187
= *Trichaphodiellus brasiliensis* – Dellacasa *et al*. 2001a: 288

Genus ***Trichaphodius*** Schmidt, 1913

Trichaphodius quadripartitus (Petrovitz, 1973)
= *Aphodius* (*Trichaphodius*) *quadripartitus* Petrovitz, 1973: 146
= *Trichaphodius quadripartitus* – Skelley *et al*. 2007: 7

Subtribe Didactyliina Pittino, 1985

Genus ***Aidophus*** Balthasar, 1963

Aidophus cabrali (Petrovitz, 1973)
= *Didactylia cabrali* Petrovitz, 1973: 148
= *Aidophus cabrali* – Dellacasa *et al*. 2001b: 198
Aidophus flechtmanni Stebnicka & Dellacasa, 2001
Aidophus impressus (Petrovitz, 1970)
= *Didactylia impressa* Petrovitz, 1970: 230
Aidophus infuscatopennis (Schmidt, 1909)
= *Aphodius infuscatopennis* Schmidt, 1909a: 12

= *Didactylia infuscatopennis* – Schmidt 1911b: 38
= *Aphodius* (*Aidophus*) *paraguayanus* Balthasar, 1963: 279
= *Aidophus impressus* – Dellacasa *et al*. 2000b: 202
Aidophus kolbei (Schmidt, 1911) (new record)
= *Didactylia kolbei* Schmidt, 1911b: 36
= *Aidophus kolbei* – Dellacasa *et al*. 2001b: 206

Tribe Eupariini Schmidt, 1910

Genus ***Aphotaenius*** Cartwright, 1952

Aphotaenius elegans Skelley & Vaz-de-Mello, 2020
Aphotaenius gaucho Skelley & Vaz-de-Mello, 2020
Aphotaenius plaumanni Cartwright, 1963
= *Haroldiataenius plaumanni* – Chalumeau 1983b: 2 (lapsus calami)

Genus ***Arupaia*** Stebnicka, 1999

Arupaia friedenreichi (Harold, 1870)
= *Euparia friedenreichi* Harold, 1870: 23
= *Iarupea guimaraesi* Martínez, 1955: 68
= *Arupaia friedenreichi* – Stebnicka 1999a: 289

Genus ***Ataeniopsis*** Petrovitz, 1973

Ataeniopsis haroldi (Steinheil & Stroblel, 1872) (new record)
= *Ataenius haroldi* Steinheil & Stroblel, 1872: 556
= *Ataenius* (*Ataeniopsis*) *haroldi* – Chalumeau 1992: 196
= *Ataeniopsis haroldi* – Stebnicka 2003b: 104
Ataeniopsis notabilis Petrovitz, 1973
= *Ataeniopsis notabilis* Petrovitz, 1973: 191. **added**
= *Ataenius* (*Ataeniopsis*) *notabilis* – Chalumeau, 1992: 196 (as synonym of *A. regulus*)
= *Ataeniopsis notabilis* – Stebnicka 2003: 106
Ataeniopsis parallelus (Petrovitz, 1961)
= *Ataenius parallelus* Petrovitz, 1961b: 148
= *Ataenius* (*Ataeniopsis*) *parallelus* – Chalumeau 1992: 196
= *Ataeniopsis parallelus* – Stebnicka 2003b: 104
Ataeniopsis regulus (Balthasar, 1947)
= *Ataenius regulus* Balthasar, 1947: 53
= *Ataenius bordoni* Petrovitz, 1972: 166
= *Ataenius abdominalis* Petrovitz, 1973: 154
= *Ataenius* (*Ataeniopsis*) *regulus* – Chalumeau 1992: 196
= *Ataeniopsis regulus* – Stebnicka 2003b: 105

Genus ***Ataenius*** Harold, 1867

Ataenius pertuga Balthasar, 1961

aequalis-platensis species group

Ataenius aequalis Harold, 1880
= *Ataenius insulicola* Chapin, 1940: 28
= *Ataenius titschacki* Balthasar, 1941c: 167
Ataenius clavatus Schmidt, 1916
Ataenius clitellarius Petrovitz, 1973
Ataenius koelleri Balthasar, 1963

Ataenius lenkoi Petrovitz, 1973
Ataenius longiclavus Petrovitz, 1970
Ataenius platensis (Blanchard, 1846)
= *Oxyomus platensis* Blanchard, 1843: 185
= *Ataenius integer* Harold, 1868: 86
= *Ataenius anticus* Fall, 1930: 105
= *Ataenius granchacoensis* Balthasar, 1939: 29
= *Ataenius histrionicus* Balthasar, 1947:49
= *Ataenius heyrovskyi* Balthasar, 1960:5
= *Ataenius degallieri* Chalumeau, 1990: 304
Ataenius plaumanni Petrovitz, 1973
Ataenius punctipennis Harold, 1868

complicatus species group

Ataenius complicatus Harold, 1869
= *Ataenius lorettii* Martínez, 1952: 194
Ataenius crenulatus Schmidt, 1910
= *Ataenius rickardsi* Hinton, 1938: 124
= *Ataenius ricardsi* [sic!] – Galante *et al.* 2003: 291
Ataenius elegans Harold, 1868
Ataenius forsteri Balthasar, 1960
Ataenius sculptilis Harold, 1868
Ataenius vazdemelloi Minkina, Gama & Skelley, 2024

crenator species group

Ataenius blapoides Balthasar, 1947
Ataenius crenator Harold, 1876
= *Ataenius nigritus* Petrovitz, 1973: 171

imbricatus species group

Ataenius balthasari Petrovitz, 1973
Ataenius carinatipennis Petrovitz, 1973
= *Ataenius granulipennis* Petrovitz, 1973: 152–154
Ataenius imbricatoides Schmidt, 1909
Ataenius imbricatus (Melsheimer, 1844)
= *Aphodius imbricatus* Melsheimer, 1844: 136
= *Ataenius sordidus* Harold, 1869b: 103
= *Ataenius imbricatus* – Gemminger & Harold 1869: 1066
Ataenius impressus (Petrovitz, 1963)
= *Dialytes impressus* Petrovitz, 1963b: 643
= *Ataenius impressus* – Stebnicka 1998b: 204
Ataenius morator Harold, 1869
= *Ataenius picipes* Fleutiaux & Sallé, 1889: 397
= *Ataenius tenebrosus* Arrow, 1903: 512
= *Ataenius insitivus* Balthasar, 1961:125
Ataenius petrovitzi Balthasar, 1960
= *Ataenius auropunctatus* Petrovitz, 1973: 166
Ataenius pseudostercorator Stebnicka, 2003
Ataenius scabrelloides Petrovitz, 1962
= *Ataenius superficialis* Cartwright, 1974: 30

Ataenius schmidti Stebnicka, 2003
= *Ataenius argillaceous* Schmidt, 1916:103
Ataenius siminasus Petrovitz, 1973
Ataenius stercorator (Fabricius, 1775)
= *Scarabaeus stercorator* Fabricius, 1775: 20
= *Ataenius opacus* Harold, 1867a: 100
= *Ataenius stercorator* – Bates 1887: 96
Ataenius tuberculatus Schmidt, 1911

nugator species group

Ataenius nugator Harold, 1880
= *Ataenius bolivianus* Hinton, 1937:189–191

perforatus species group

Ataenius lanei Petrovitz, 1973
Ataenius opatrinus Harold, 1867
= *Ataenius narialis* Petrovitz, 1973:173–174
= *Ataenius woodruffi* Cartwright, 1974: 72
= *Ataenius paraperforatus* Deloya & Ibáñez-Bernal, 2000: 318
Ataenius perforatus Harold, 1867

scutellaris species group

Ataenius noronhai Stebnicka, 2007
Ataenius pereirai Petrovitz, 1970
Ataenius scutellaris Harold, 1867
= *Ataenius frater* Arrow, 1903: 512
= *Ataenius auberti* Paulian, 1937: 42
Ataenius skelleyi Stebnicka, 2007
Ataenius tarumensis Stebnicka, 2007

strigatus species group

Ataenius impiger Schmidt, 1916
= *Ataenius laterigranulatus* Balthasar, 1941c: 166
= *Ataenius perpunctatus* Balthasar, 1961: 124
Ataenius purator Harold, 1868
= *Ataenius gothi* Balthasar, 1933: 9
= *Ataenius gagates* Petrovitz, 1963a: 317
= *Ataenius splendens* Endrödi, 1962: 52

strigicauda species group

Ataenius columbicus Harold, 1880
= *Ataenius laterigranosus* Balthasar, 1947: 51
= *Ataenius tesari* Balthasar, 1947: 50
= *Ataenius fastus* Petrovitz, 1970: 236
Ataenius crenaticollis Petrovitz, 1973
Ataenius picinus Harold, 1867
= *Ataenius duplopunctatus* Lea, 1923: 6
= *Ataenius salutator* Fall, 1930: 99
= *Ataenius queroisii* Paulian, 1934: 41
= *Ataenius boucomontii* Paulian, 1937: 179
= *Ataenius darlingtoni* Hinton, 1937: 179
= *Ataenius alegrus* Balthasar, 1947: 50

= *Saprosites rugosus* Richards, 1959: 41
= *Ataenius paracognatus* Balthasar, 1961: 123
Ataenius strigicauda Bates, 1887
= *Ataenius aspericollis* Petrovitz, 1973: 178
= *Ataenius strigicaudus* Smith & Skelley, 2007: 37

texanus-carinator species group

Ataenius arenosus Harold, 1868
Ataenius attenuator Harold, 1874
= *Ataenius abditoides* Chapin, 1940: 18
= *Ataenius denticulatus* Petrovitz, 1965: 175–176
Ataenius bolivarensis Stebnicka, 2007 (new record?)
Ataenius canoasus Stebnicka, 2007
Ataenius carinator Harold, 1874
= *Ataenius vincentiae* Arrow, 1903: 513
Ataenius catarinaensis Stebnicka, 2007
Ataenius gracilis (Melsheimer, 1844)
= *Oxyomus gracilis* Melsheimer, 1844: 137
= *Ataenius gracilis* – Harold 1867c: 281
= *Saprosites nocturnus* Nomura, 1943: 77
= *Ataenius nocturnus* – Cartwright & Gordon 1971: 271
Ataenius kochi Balthasar, 1941
Ataenius londrinae Stebnicka, 2007
Ataenius opacipennis Schmidt, 1910
Ataenius noques Stebnicka, 2007
Ataenius pseudocarinator Balthasar, 1947

Genus ***Batesiana*** Chalumeau, 1983

Batesiana chamorroi Skelley & Vaz-de-Mello, 2022 (new record)
Batesiana tuberculata (Bates, 1887)
= *Euparia tuberculata* Bates, 1887: 94
= *Phalangochaeta tuberculata* – Martínez 1952: 95
= *Batesiana tuberculata* – Chalumeau 1983a: 143

Genus ***Cartwrightia*** Islas, 1958 (new record ?)

Cartwrightia cartwrighti Cartwright, 1967

Genus ***Euparixoides*** Hinton, 1936

Euparixoides johnsoni Stebnicka, 1998

Genus ***Flechtmanniella*** Stebnicka, 1999

Flechtmanniella laticollis (Petrovitz, 1973)
= *Euparia laticollis* Petrovitz, 1973: 181
= *Flechtmannia laticollis* – Stebnicka 1999a: 287
= *Flechtmanniella laticollis* – Stebnicka 1999c: 287

Genus ***Iarupea*** Martínez, 1953

Iarupea goias Stebnicka, 2007
Iarupea lopeteguii Martínez, 1953 (new record)
Iarupea luisae Stebnicka, 2007

Iarupea nigricans (Westwood, 1847)
= *Euparia nigricans* Westwood, 1847: 240
= *Euparia attenuata* Harold, 1870: 23
= *Iarupoides attenuata* Chalumeau & Howden, 1984: 87
= *Iarupea attenuata* – Stebnicka 1999a: 291
= *Iarupea nigricans* – Stebnicka 2009: 17
Iarupea serratipennis (Petrovitz, 1973)
= *Euparia serratipennis* Petrovitz, 1973: 185
= *Iarupea serratipennis* – Stebnicka 1999a: 292

Genus ***Lomanoxia*** Martínez, 1951

Lomanoxia canthonopsis Skelley & Howden, 2003 (new record)
Lomanoxia costulata (Harold, 1867)
= *Euparia costulata* Harold, 1867a: 82
= *Lomanoxia costulata* – Martínez 1951: 29
Lomanoxia ituensis Stebnicka, 1999
Lomanoxia melloi Stebnicka, 1999

Genus ***Lomanoxoides*** Stebnicka, 1999

Lomanoxoides bitubericollis (Schmidt, 1909) (new record)
= *Euparia bitubericollis* Schmidt, 1909c: 44
= *Lomanoxia bitubericollis* – Chalumeau & Howde 1984: 87
Lomanoxoides selviriaensis Stebnicka, 1999
Lomanoxoides setosus (Balthasar, 1941)
= *Odontolytes setosus* Balthasar, 1941a: 174
= *Ataenius thoracalis* Petrovitz, 1964: 284
= *Lomanoxoides thoracalis* – Stebnicka 1999a: 294
= *Lomanoxoides setosus* – Stebnicka & Galante 2007: 135
Lomanoxoides tesari (Balthasar, 1963)
= *Euparia tesari* Balthasar, 1963: 285
= *Ataenius fastigatus* Petrovitz, 1973: 168
= *Ataenius* (*Ataenius*) *hrubantovai* Chalumeau, 1992: 198
= *Lomanoxoides tesari* – Stebnicka 1999a: 295

Genus ***Martineziana*** Chalumeau & Özdikmen, 2006

Martineziana argentina (Harold, 1867)
= *Euparia argentina* Harold, 1867b: 99
= *Martinezia argentina* – Chalumeau 1983a: 150
= *Martineziella argentina* – Chalumeau 1986: 386
= *Martineziana argentina* – Chalumeau & Özdikmen 2006: 70
Martineziana dutertrei (Chalumeau, 1983)
= *Martineziella dutertrei* Chalumeau, 1983a: 147
= *Martineziana dutertrei* – Chalumeau 1986: 386
= *Myrmecaphodius excavaticollis* Woodruff, 1973: 101
= *Martineziana dutertrei* – Chalumeau & Özdikmen 2006: 70
Martineziana excavaticollis (Blanchard, 1843)
= *Oxyomus excavaticollis* Blanchard, 1843: 184
= *Euparia excavaticollis* – Harold 1870: 29
= *Myrmecaphodius excavaticollis* – Woodruff 1973: 101
= *Martinezia excavaticollis* – Chalumeau 1983a: 146

= *Martineziella excavaticollis* – Chalumeau 1986: 386
= *Martineziana excavaticollis* – Chalumeau & Özdikmen 2006: 70
Martineziana separata (Schmidt, 1909)
= *Euparia separata* Schmidt, 1909c: 44
= *Martinezia separa* [sic!] – Chalumeau 1983a: 146
= *Martineziella separata* – Chalumeau 1986: 386
= *Martineziana separata* – Chalumeau & Özdikmen 2006: 70
Martineziana simplex (Balthasar, 1963)
= *Euparia simplex* Balthasar, 1963: 284
= *Martinezia cambeforti* Chalumeau, 1983a: 145
= *Martineziella cambeforti* – Chalumeau 1986: 186
= *Martineziana simplex* – Stebnicka 2009: 21

Genus ***Odontolytes*** Kozhantshikov, 1916

Odontolytes andamanensis Kozhantshikov, 1916
= *Odontolochus* (*Odontolytes*) *andamanensis* – Balthasar 1964: 523
= *Phalangochaeta amazonica* Petrovitz, 1961a: 148–149
= *Auperia amazonica* – Stebnicka 2002: 771
= *Auperia andamanensis* – Stebnicka 2009: 29
= *Odontolytes andamanensis* – Krell *et al*. 2011: 174
Odontolytes capitosus (Harold, 1867)
= *Ataenius capitosus* Harold, 1867a: 83
= *Auperia capitosa* – Stebnicka 2002: 768
= *Odontolytes capitosus* – Krell *et al.* 2011: 175
Odontolytes denominatus (Chevrolat, 1864)
= *Auperia denominata* Chevrolat, 1864: 413
= *Ataenius arator* Harold, 1869b: 102
= *Ataenius euglyptus* Bates, 1887: 97
= *Odontolytes brevinotus* Chapin, 1940: 39–40
= *Ataenius benjaminbanderai* Islas, 1955: 497–499
= *Phalangochaeta grandis* Petrovitz, 1973: 179–181
= *Ataenius sciurus* Cartwright, 1974: 65
= *Odontolytes denominatus* – Krell *et al.* 2011: 175
Odontolytes guayara (Stebnicka, 2002) (new record)
= *Auperia guayara* Stebnicka, 2002: 756
= *Odontolytes guayara* – Krell *et al*. 2011: 175
Odontolytes huebneri (Petrovitz, 1970)
= *Euparia huebneri* Petrovitz, 1970: 232
= *Auperia huebneri* – Stebnicka 2002: 770
= *Phalangochaeta huebneri* – Chalumeau & Howden 1984: 87
= *Odontolytes huebneri* – Krell *et al.* 2011: 175
Odontolytes iquitosae (Stebnicka, 2002)
= *Auperia iquitosae* Stebnicka, 2002: 768
= *Odontolytes iquitosae* – Krell *et al*. 2011: 175
Odontolytes loretoensis (Stebnicka, 2002) (new record)
= *Auperia loretoensis* Stebnicka, 2002: 766–767
= *Odontolytes loretoensis* – Krell *et al*. 2011: 175
Odontolytes minutus (Petrovitz, 1973)
= *Euparia minuta* Petrovitz, 1973: 188
= *Auperia minuta* – Stebnicka 2002: 765

= *Phalangochaeta minuta* – Chalumeau & Howden 1984: 87
= *Odontolytes minutus* – Krell *et al*. 2011: 175
Odontolytes rondoniae (Stebnicka, 2002)
= *Auperia rondoniae* Stebnicka, 2002: 755
= *Odontolytes rondoniae* – Krell *et al.* 2011: 175
Odontolytes teutoniae (Stebnicka, 2002)
= *Auperia teutoniae* Stebnicka, 2002: 762
= *Odontolytes teutoniae* – Krell *et al.* 2011: 175
Odontolytes transversarius (Schmidt, 1909)
= *Ataenius transversarius* Schmidt, 1909c: 43
= *Phalangochaeta transversaria* – Stebnicka 1998: 200
= *Auperia trasversarius* – Stebnicka 2002: 760
= *Euparia bolivari* Petrovitz, 1973: 183
= *Phalangochaeta bolivari* – Chalumeau & Howden 1984: 87
= *Odontolytes transversarius* – Krell *et al*. 2011: 175

Genus ***Paraplesiataenius*** Chalumeau, 1992

Paraplesiataenius catarinaensis Stebnicka, 2003
Paraplesiataenius genieri Stebnicka, 2003

Genus ***Parataenius*** Balthasar, 1961

Parataenius derbesis (Solier, 1851)
= *Aphodius derbesis* Solier, 1851: 72
= *Euparia rubripes* Boheman, 1858: 51
= *Euparia cribricollis* Burmeister, 1877: 411
= *Ataenius laborator* Harold, 1869b: 102
= *Parataenius mirabilis* Balthasar, 1961: 121
= *Parataenius derbesis* – Dellacasa 1987: 120
Parataenius simulator (Harold, 1868)
= *Ataenius simulator* Harold, 1868: 85
= *Psammodius schwarzi* Linell, 1896: 721
= *Parataenius granuliceps* Petrovitz, 1971: 102
= *Ataenius* (*Brancotaenius*) *lusitanicus* Paulian, 1979: 66
= *Parataenius simulator* – Dellacasa 1987: 281

Genus ***Passaliolla*** Balthasar, 1945

Passaliolla aspericeps (Harold, 1896)
= *Saprosites aspericeps* Harold, 1876: 58
= *Passaliolla brasiliana* Balthasar, 1965: 443
= *Passaliolla aspericeps* – Stebnicka 2000: 236
Passaliolla cancellata (Bates, 1997)
= *Saprosites cancellatus* Bates, 1887: 92
= *Passaliolla depressa* Balthasar, 1945: 105
= *Passaliolla cancellata* – Stebnicka 2000: 237
Passaliolla corticalis (Bates, 1997)
= *Saprosites corticalis* Bates, 1887: 93
= *Passaliolla imitatrix* Balthasar, 1965: 444
= *Passaliolla corticalis* – Stebnicka 2000: 237
Passaliolla eugastrica (Harold, 1869)
= *Saprosites eugastricus* Harold, 1869b: 101
= *Passaliolla eugastrica* – Stebnicka 2000: 236

Genus ***Pseudataenius*** Brown, 1927

Pseudataenius gracilitarsis (Petrovitz, 1973)
= *Ataenioides gracilitarsis* Petrovitz, 1973: 150

= *Pseudataenius gracilitarsis* – Stebnicka & Skelley 2009: 12

Genus ***Saprosites*** Redtenbacher, 1858

Saprosites breviusculus Harold, 1867
= *Saprosites ohausi* Schmidt, 1911b: 45
Saprosites dentipes Harold, 1867
= *Saprosites granulifrons* Balthasar, 1938: 59
= *Saprosites ataenoides* Balthasar, 1945: 110
Saprosites parallelus Harold, 1867
Saprosites puncticollis Harold, 1867
= *Saprosites sulcifer* Schmidt, 1910: 361
Saprosites sulcatus Harold, 1867
= *Passalaphodius cartwrighti* Martínez, 1953: 82

Genus ***Selviria*** Stebnicka, 1999

Selviria anneae Stebnicka, 2005
Selviria matogrossoensis Stebnicka, 1999

Genus ***Tanyana*** Stebnicka, 2006

Tanyana aniae Minkina, 2022
Tanyana guyanaensis (Stebnicka, 2003) (new record)
= *Taenia guyanaensis* Stebnicka, 2003a: 356
= *Tanyana guyanaensis* – Stebnicka 2006: 183

Tribe Odontolochini Stebnicka & Howden, 1996

Genus ***Amerilochus*** Skelley, 2007 (new record)

Amerilochus cinereus Skelley, 2007

Genus ***Saprolochus*** Stebnicka & Galante, 2007 (new record)

Saprolochus tridentatus Skelley, 2007

Genus ***Saprositellus*** Balthasar, 1967

Saprositellus denticulatus Balthasar, 1967
Saprositellus ariquemes Stebnicka, 2003

Genus ***Stebnickiella*** Skelley, 2007 (new record)

Stebnickiella zosterixys Skelley, 2007

Tribe Psammodiini Mulsant, 1842
Subtribe Psammodiina Mulsant, 1842

Genus ***Leiopsammodius*** Rakovic, 1981

Leiopsammodius globatus (Petrovitz, 1972)
= *Psammodius globatus* Petrovitz, 1972: 163–164
= *Leiopsammodius globatus* – Rakovic 1990: 7
Leiopsammodius manaosi (Cartwright, 1955)
= *Psammodius manaosi* Cartwright, 1955: 437
= *Leiopsammodius manaosi* – Rakovic 1990: 10

Leiopsammodius martinezi (Cartwright, 1955)
= *Psammodius martinezi* Cartwright, 1955: 449
= *Leiopsammodius martinezi* – Rakovic 1990: 11
Leiopsammodius santaremi (Cartwright, 1955)
= *Psammodius santaremi* Cartwright, 1955: 438
= *Leiopsammodius santaremi* – Rakovic 1990: 11
Leiopsammodius soledadei (Petrovitz, 1961)
= *Psammodius soledadei* Petrovitz, 1961b: 130
= *Leiopsammodius soledadei* – Rakovic 1990: 12

Genus ***Odontopsammodius*** Gordon & Pittino, 1992

Odontopsammodius insulcatus (Schmidt, 1916)
= *Psammodius insulcatus* Schmidt, 1916: 102
= *Leiopsammodius insulcatus* – Rakovic 1990: 8
= *Odontopsammodius insulcatus* – Gordon & Pittino 1992: 266

Genus ***Trichiopsammobius*** Petrovitz, 1963

Trichiopsammobius brasiliensis Petrovitz, 1963

Subtribe Rhyssemina Pittino & Mariani, 1986
Genus ***Afrodiastictus*** Pittino & Mariani, 1986

Afrodiastictus minutus (Petrovitz, 1970)
= *Rhyssemus minutus* Petrovitz, 1970: 238
= *Afrodiastictus minutus* – Gordon & Pittino 1992: 270

Genus ***Neorhyssemus*** Gordon & Pittino, 1992

Neorhyssemus intrinsecus (Gordon & Cartwright, 1980)
= *Rhyssemus intrinsecus* Gordon & Cartwright, 1980: 17
= *Neorhyssemus intrinsecus* – Gordon & Pittino 1992: 270
Neorhyssemus lineatus (Gordon & Cartwright, 1980)
= *Rhyssemus lineatus* Gordon & Cartwright, 1980: 16
= *Neorhyssemus lineatus* – Gordon & Pittino 1992: 270
Neorhyssemus quinquecostatus (Schmidt, 1911)
= *Rhyssemus quinquecostatus* Schmidt, 1911a: 15
= *Neorhyssemus quinquecostatus* – Gordon & Pittino 1992: 270

Genus ***Platytomus*** Mulsant, 1842

Platytomus bordati Rakovic, Mencl & Král, 2020
Platytomus brasiliensis Rakovic, Mencl & Král, 2020
Platytomus freudei (Balthasar, 1960)
= *Diastictus freudei* Balthasar, 1960: 7
= *Platytomus freudei* – Pittino & Mariani 1986: 55
Platytomus longulus (Cartwright, 1948)
= *Pleurophorus longulus* Cartwright, 1948: 143–144
= *Platytomus longulus* – Pittino & Mariani 1986: 55
Platytomus parvulus (Chevrolat, 1864)
= *Psammodius parvulus* Chevrolat, 1864: 415
= *Diastictus parvulus* – Schmidt 1922: 488
= *Pleurophorus parvulus* – Chapin 1940: 8
= *Platytomus parvulus* – Pittino & Mariani 1986: 54

Tribe Rhyparini Schmidt, 1910

Genus ***Aschnarhyparus*** Makhan, 2006

Aschnarhyparus peregrinus (Hinton, 1934)
= *Termitodius peregrinus* Hinton, 1934a: 340
= *Termitodius bolivensis* Dajoz, 1971: 138
= *Aschnarhyparus soesilae* Makhan, 2006: 7–11
= *Aschnarhyparus peregrinus* – Skelley 2007a: 5

Genus ***Leptorhyparus*** Howden, 2003

Leptorhyparus brasiliensis Minkina, 2020

Genus ***Termitodius*** Wasmann, 1894

Termitodius coronatus Wasmann, 1894

Key to genera of Aphodiinae from Brazil (Portuguese version in Supp. file 1)

1. Posterior margin of elytra with one to two distinctly large tubercles (Fig. 27C–F) 2
– Posterior margin of elytra with no tubercle or with several small tubercles 5

2. Pronotum, anteriorly, with three evident longitudinal carinae, the middle one, posteriorly bifurcated; protibia with three distinct teeth ..... ***Cartwrightia*** Islas, 1958 (Fig. 27F)
– Pronotum with six longitudinal carinae. At least four of them interrupted by large pits; protibia, at most with two distinctly developed teeth (Fig. 27C–E) 3

3. Pronotal and elytral longitudinal carinae distinctly elevated; all pronotal carinae medially interrupted (Fig. 27C–D) 4
– Pronotal and elytral longitudinal carinae weakly elevated; two medial carinae of pronotum not completely interrupted by pits ..... ***Leptorhyparus*** Howden, 2003 (Fig. 27E)

4. Pronotal ridges not swollen anteriorly. Metatibia distinctly broader towards apex .... ***Aschnarhyparus*** Makhan, 2006 (Fig. 27C)
– Pronotal ridges swollen anteriorly. Metatibia not distinctly broader towards apex .... ***Termitodius*** Wasmann, 1894 (Fig. 27D)

5. Fifth elytral interstria anteriorly elevated, tuberculate; fifth elytral stria anteriorly deeply grooved (Fig. 14B) 6
– Fifth interstria not elevated; fifth elytral stria anteriorly not grooved 7

6. Lateral margins of pronotum undulated, third and fifth interstria anteriorly elevated, tuberculate, humeral region prominent, crowned by a group of setae .... ***Iarupea*** Martínez, 1953 (Figs 14D–F, 15A–D)
– Lateral margin of pronotum straight, only fifth interstria anteriorly elevated, tuberculate, humeral region prominent, not crowned by a group of setae ..... ***Arupaia*** Stebnicka, 1999 (Fig. 14A–C)

7. Mesocoxa expanded, so long it almost touches the anterior part of elytral epipleuron. Mesepimeron and metepisternum covered by epipleuron (Figs 18B, 32B) 8
– Mesocoxa not expanded, well separated from epipleuron. Mesepimeron and metepisternum evident (Fig. 32A) 9

8. Lateral margins of pronotum serrated, posterior angles of pronotum acuminate .... ***Euparixoides*** Hinton, 1936 (Fig. 18F)

– Lateral margins of pronotum not serrated, posterior angles of pronotum not acuminate .... ***Lomanoxia*** Martínez, 1951 (Fig. 18A–E)

9. Lateral margins of pronotum entirely explanate (Fig. 17E–F) 10
– Lateral margin of pronotum not explanate or only anterior half explanate (Fig. 17C) 15

10. Lateral margin of pronotum with fringe of large and evident setae (Fig. 16A–F) 11
– Lateral margin of pronotum with fringe of small and inconspicuous setae or glabrous (Fig. 17B, E–F) 13

11. Elytral interstriae convex, tectiform ..... ***Lomanoxoides*** Stebnicka, 1999 (in part) (Fig. 19A–C)
– Elytral interstriae flat or weakly convex 12

12. Pronotum posterior margin with wide strigate excavation .... ***Martineziana*** Chalumeau & Özdikmen, 2006 (in part) (Fig. 16A–F)
– Pronotum thinly margined posteriorly ..... ***Selviria*** Stebnicka, 1999 (Fig. 17B)

13. Posterior margin of pronotum depressed, constricted, with at least one row of distinctly large and deep punctures ..... ***Stebnickiella*** Skelley, 2007 (Fig. 26E)
– Posterior margin of pronotum not depressed nor constricted, without row of particularly large punctures 14

14. Elytra with interstriae tuberculate ..... ***Batesiana*** Chalumeau, 1983 (Fig. 17E–F)
– Elytra with interstriae not tuberculate ..... ***Odontolytes*** Kozhantshikov, 1916 (in part) (Fig. 21A–F)

15. Apical spurs of metatibia set apart, thus allowing the basitarsomere to articulate between spurs (Fig. 6G) 16
– Apical spur of metatibia close, set beside metatarsal insertion, thus not allowing the basitarsomere to articulate between them (Fig. 12E) 24

16. Mesoscutellum long, triangular, equal to or similar to 1/3 the length of elytral suture; big convex black species with elytra posteriorly lighter ..... ***Neodiapterna*** Dellacasa, 1984 (Fig. 7B)
– Mesoscutellum variably shaped, length less than 1/6 of the length of the elytral suture 17

17. Specimens with interstriae carinate ..... ***Pleuraphodius*** Schmidt, 1913
– Specimens with interstriae flat or convex, but not carinate 18

18. Dorsal face of protibia distinctly punctate (Fig. 4E) 20
– Dorsal face of protibia not punctate 19

19. Body distinctly yellow with darkened areas on disc of pronotum, elytra and head .... ***Labarrus*** Mulsant & Rey, 1870 (Fig. 6A–G)
– Body piceous ..... ***Nialaphodius*** Kolbe, 1908 (Fig. 7C)

20. Lateral apical margin of metatibiae with fringe of setae gradually longer towards sides. Large and yellow specimens (length 4.0--8.0 mm) (Fig. 4F) 21
– Lateral apical margin of metatibiae with fringe of setae abruptly longer towards sides. Specimens variably colored, and somewhat smaller (length: 2.5mm--6.0mm) (Fig. 3E) 22

21. Clypeus sinuate anteriorly. Elytra glabrous near posterior margin .... ***Trichaphodiellus*** Schmidt, 1913 (Fig. 4D)

– Clypeus truncate. Elytra finely setaceous near posterior margin ..... ***Trichaphodius*** Schmidt, 1913 (Fig. 7A)

22. Posterior angles of pronotum truncated in dorsal view, in lateral view sometimes distinctly or faintly sinuate; metatibia slightly broadening towards apex (Figs 4A–C, 5B, D) 23
– Posterior angles of pronotum rounded in dorsal view, in lateral view not sinuate; metatibia conspicuously broadening towards apex ..... ***Blackburneus*** Schmidt, 1913 (Figs 2–3)

23. Clypeus distinctly sinuate medially ..... ***Gonaphodioides*** Dellacasa, Dellacasa & Gordon, 2012 (Fig. 4A–C)
– Clypeus not at all sinuate medially ..... ***Neotrichaphodioides*** Dellacasa, Dellacasa & Skelley, 2010 (Fig. 5A–D)

24. Pronotum with two complete longitudinal ridges, odd elytral interstriae carinate; specimens with body with argillaceous coating; protibia with two teeth ..... ***Amerilochus*** Skelley, 2007 (Fig. 26F)
– Pronotum with more than two longitudinal ridges or without ridges, may have transverse and longitudinal furrows or no furrows at all 25

25. Mesoventrite with deep V-shaped furrow parallel to lateral margin of mesocoxa, extending from mesometasternal suture to anterior margin of mesocoxa (Fig. 26B) 26
– Mesoventrite without deep furrow or with somewhat shallow depression 27

26. Metaventrite with coarse punctures near lateral margins ..... ***Saprolochus*** Stebnicka & Galante, 2007 (Fig. 26D)
– Metaventrite with fine punctures only ..... ***Tanyana*** Stebnicka, 2006 (Fig. 26A–C)

27. Clypeus with group of six to seven denticles on each side of median emargination ..... ***Saprositellus*** Balthasar, 1967 (Fig. 27A–B)
– Clypeus without or with only one denticle on each side of median emargination 28

28. Body covered by long and erect setae; head with clypeus distinctly granulate ..... ***Trichiopsammobius*** Petrovitz, 1963 (Fig. 29G)
– Body without the combination of characters above. Specimens glabrous or pilose, if pilose, then clypeus never granulate 29

29. Basal tarsomere of metatibiae posteriorly dilated, sub-triangularly shaped. Body strongly convex and oval (Fig. 29E–F) 30
– Basal tarsomere of metatarsus elongate, cylindrical to sub-cylindrical. Body variable, cylindrical, oval, convex or dorsoventrally flattened 31

30. Clypeus, on each side of median emargination, with small but clearly upturned denticle ..... ***Odontopsammodius*** Gordon & Pittino, 1992
– Clypeus rounded on each side of its median emargination ..... ***Leiopsammodius*** Rakovic, 1981 (Fig. 29E–F)

31. Pronotum with lateral transverse furrows, extending towards pronotal disc (Fig. 28A–D). If furrows not evident dorsally, then present as a small furrow marked by line of coarse punctures right behind the eyes (*Platytomus* sp.) (Figs 28D–G, 29A–D); pronotum always with posterior longitudinal furrow (Figs 28 A–G, 29A, C) 32
– Pronotal sculpture not as above, may present tubercles and/or fossa 34

32. Pronotum with three or more transverse furrows interrupted by one longitudinal furrow located posteromedially (Fig. 28A–C) 33
– Pronotum with faint longitudinal furrows located directly behind the eyes, furrow marked by line of coarse punctures .....***Platytomus*** Mulsant, 1842 (in part) (Figs 28D–G, 29A–D)

33. Elytral interstriae alternately carinate .....***Neorhyssemus*** Gordon & Pittino, 1992 (Fig. 28B–C)
– Elytral interstriae not alternately carinate .....***Afrodiastictus*** Pittino & Mariani, 1986 (Fig. 28A)

34. Body ventrally testaceuos yellow, dorsally yellow with head, disc of pronotum and elytra darkened .....***Aidophus*** Balthasar, 1963 (Fig. 1A–G)
– Body piceous, reddish piceous, or black 35

35. Ninth elytral interstria distinctly convex and expanded, forming a pseudoepipleuron. Remaining elytral interstriae flat .....***Flechtmanniella*** Stebnicka, 1999 (Fig. 17C–D)
– Ninth elytral interstria not particularly convex, not expanded, not forming a pseudoepipleuron. Remaining elytral interstriae either convex or not 36

36. Apex of meso- and metatibiae with at least two dentiform processes in addition to the two apical spurs and lateral spine (Fig. 23E) 37
– Apex of meso- and metatibiae with at most one dentiform process in addition to the apical spurs and lateral spine 39

37. Body cylindrical, dorso-ventrally flattened 38
– Body convex, oval .....***Aphotaenius*** Cartwright, 1952 (Fig. 20D–F)

38. Abdominal ventrites medially coalesced, sutures visible only on sides; sixth ventrite with two distinguished foveae on both sides .....***Passaliolla*** Balthasar, 1945 (Figs 23C–F, 24A–B)
– Abdominal ventrites not coalesced, without foveae ..... ***Saprosites*** Redtenbacher, 1858 (Figs 24C–F, 25A–F)

39. Anterior margin of profemur, near protibial base, with translucent ventral projection, without anterior groove (Fig. 7D) ..... ***Ataeniopsis*** Petrovitz, 1973 (Figs 7D–F, 8A–F)
– Profemur without projection, with anterior groove 40

40. Posterior and lateral margins of pronotum with wide furrow (Fig. 17A); furrow of posterior margin strongly transversely strigate. Disc of pygidium eroded, longitudinally wrinkled, without transverse carina ..... ***Martineziana*** Chalumeau & Özdikmen, 2006 (in part) (Fig. 17A)
– Posterior and lateral margins of pronotum, if furrowed, narrowly so and not strigate. Disc of pygidium eroded, but never with longitudinal wrinkles 41

41. Ventral surface of meso-metarsus with dense setae, if setae scarce, then mesoventrite with one or two large discal fossae .....***Odontolytes*** Kozhantshikov, 1916 (in part) (Figs 21A–F, 22A–B)
– Ventral surface of meso-metarsus with scarce setae; mesoventrite without discal fossae 42

42. Clypeus with granules; pronotum with clear, although shallow, posterior longitudinal furrow .....***Platytomus*** Mulsant, 1842 (in part) (Figs 28D–G, 29A–C)
– Clypeus may or may not present granules; pronotum never with posterior longitudinal furrow ... 43

43. Margin of clypeus, at the medial emargination, extremely thickened, 3 to 4 times as thick as the rest of clypeal margin (Fig. 19E). Specimens ovoid and with reddish elytra 44
– Margin not so greatly thickened, 2 times as thick as the rest of clypeal margin or not thickened at all 45

44. Lateral spine of mesotibia large and conspicuous ..... ***Lomanoxoides*** Stebnicka, 1999 (in part) (Fig. 19A–E)
– Lateral spine of mesotibia present, but greatly reduced, inconspicuous amidst apical setae (Fig. 20C) ..... ***Paraplesiataenius*** Chalumeau, 1992 (Fig. 20A–C)

45. Body robust, parallel-sided, clypeus with distinct strong transverse wrinkles, pronotum and elytra convex in lateral view. Metafemur as wide as profemur ..... ***Parataenius*** Balthasar, 1961 (Fig. 12D–F)
– Body not as robust, with or without weakly developed transverse wrinkles, pronotum and elytra weakly convex on lateral view. Metafemur thinner than profemur 46

46. Margin of clypeus, at the emargination, not thickened. Abdominal ventrites inconspicuously strigate. Ventrites not strigate near lateral margins, extremely weakly strigate at the middle. Sixth ventrite medially weakly strigate ..... ***Pseudataenius*** Brown, 1927 (Fig. 13A–D)
– Not with the above combination of characters ..... ***Ataenius*** Harold, 1867 (Figs 9–11, 12A–C)

Tribe Aphodiini Leach, 1815

Genus ***Aidophus*** Balthasar, 1963

Diagnosis

Length 3.0–5.0 mm. Body sub-cylindrical, testaceous to dark testaceous. Head, disc of pronotum and elytra with a dark spot variably developed; clypeus sinuate or emarginate; gena rounded with distinct pale and long setae. Apical spines of meso- and metatibiae set close, not allowing the first tarsomere to articulate between them. Sexual dimorphism evidenced by the transverse head and apical spine of protarsus in males, these can be lanceolate or laterally flat and downwards bent hook like or truncate. The abdomen of males of some species with a median fovea.

Remarks

Aidophus is currently comprised of 13 species distributed across several countries in the Neartic and Neotropical regions including the Mexican transitional zone (Dellacasa *et al.* 2001b; Clavijo-Bustos *et al.* 2023). For keys of all its species see Dellacasa *et al.* (2001b).

Key to species of *Aidophus* from Brazil (adapted from Dellacasa *et al.* 2001b) (Portuguese version in Supp. file 1)

1. Clypeus distinctly emarginate; entirely subrugosely punctate ..... ***A. infuscatopennis*** (Schmidt, 1909) (Fig. 1A)
– Clypeus discretely sinuate (males) or feebly emarginate (female); not subrugosely punctate or only anteriorly subrugosely punctate (Fig. 1B–E) 2

2. Posterior angles of pronotum truncate in lateral view; males abdomen with median fovea (Fig. 1F) 3
– Posterior angles of pronotum rounded in lateral view; males abdomen without median fovea 4

3. Elytral interstriae entirely flat ..... ***A. kolbei*** (Schmidt, 1911) (Fig. 1C–D)
– Elytral interstriae weakly convex near posterior margin ..... ***A. flechtmanni*** Stebnicka & Dellacasa, 2001 (Fig. 1E–G)

4. Clypeus anteriorly subrugosely punctured ..... ***A. cabrali*** (Petrovitz, 1973)
– Clypeus not subrugosely punctured anteriorly ..... ***A. impressus*** (Petrovitz, 1970) (Fig. 1B)

Aidophus cabrali (Petrovitz, 1973)
Fig. 33A

Didactylia cabrali Petrovitz, 1973: 148.

Aidophus cabrali – Dellacasa *et al*. 2001b: 198.

Diagnosis

Length 3.2 mm. Head emarginate medially; clypeus finely punctate, punctation subrugose anteriorly. Pronotum with dense and uneven punctation. Elytral interstriae eight and ten distinctively elevated posteriorly and with fine and scarce punctures.

Sexual dimorphism

Unknown, it may follow the pattern observed with the other species in the genus, where the male, normally, has a clypeus more transverse and discretely sinuate.

Collecting information

No information available in the literature.

Remarks

No specimens were available for the present study, thus the diagnosis provided and positioning of the species in the dichotomous key was made based solely on the available literature (Dellacasa *et al.* 2001b).

Aidophus flechtmanni Stebnicka & Dellacasa, 2001
Figs 1E–G, 33A

Aidophus flechtmanni Stebnicka & Dellacasa in Dellacasa *et al.* 2001: 200.

Diagnosis

Length 3.0–4.0 mm. Head with clypeus slightly emarginate and with fine and scarce punctures; gena obtusely rounded; frons with large punctures. Pronotum with punctures of two sizes; punctures symmetrically distributed on disc, but closer on sides; posterior angles of pronotum obtusely rounded. Elytra shagreened; interstriae discretely convex with finely punctate.

Type material

Paratypes

BRAZIL • 1 ♀; "[white paper, printed] BR-MS-Selvíria/UNESP Farm/Black light trap/*Brachiaria decumbens* pasture/ C.A.H. Flechtmann. col/ [handwritten to the side] 28/XI/1998. // [white paper, handwritten] Alex 08. // [red paper, printed] *Aidophus/ flechtmanni* n. sp./ ALLOTYPE/ DELLACASA M & ALII DES. 2001"; CEMT • 1 ♀; "[white paper, printed] BR-MS- Selvíria/UNESP Farm/Black light trap/*Brachiaria decumbens* pasture/ C.A.H. Flechtmann. col/ [handwritten to the side] 14/III/1996. // [red paper, printed] *Aidophus/ flechtmanni* n. sp./ PARATYPUS/ DELLACASA M & ALII DES. 2001"; CEMT • 1 ♀; "[white paper, printed] BR-MS-Selvíria/UNESP Farm/Black light trap/*Brachiaria decumbens* pasture/ C.A.H. Flechtmann. col/ [handwritten to the side] 14/III/1996. // [white paper, printed RS24. // [red paper, printed] *Aidophus/ flechtmanni* n. sp./ PARATYPUS/ DELLACASA M & ALII DES. 2001"; CEMT • 2 ♀♀; "[white paper, printed] BR-MS-Selvíria/UNESP Farm/ Black light trap/*Brachiaria decumbens* pasture/ C.A.H. Flechtmann. col/ [handwritten to the side] 28/XI/1998. // [red paper, printed] *Aidophus/ flechtmanni* n. sp./ PARATYPUS/ DELLACASA M & ALII DES. 2001"; CEMT.

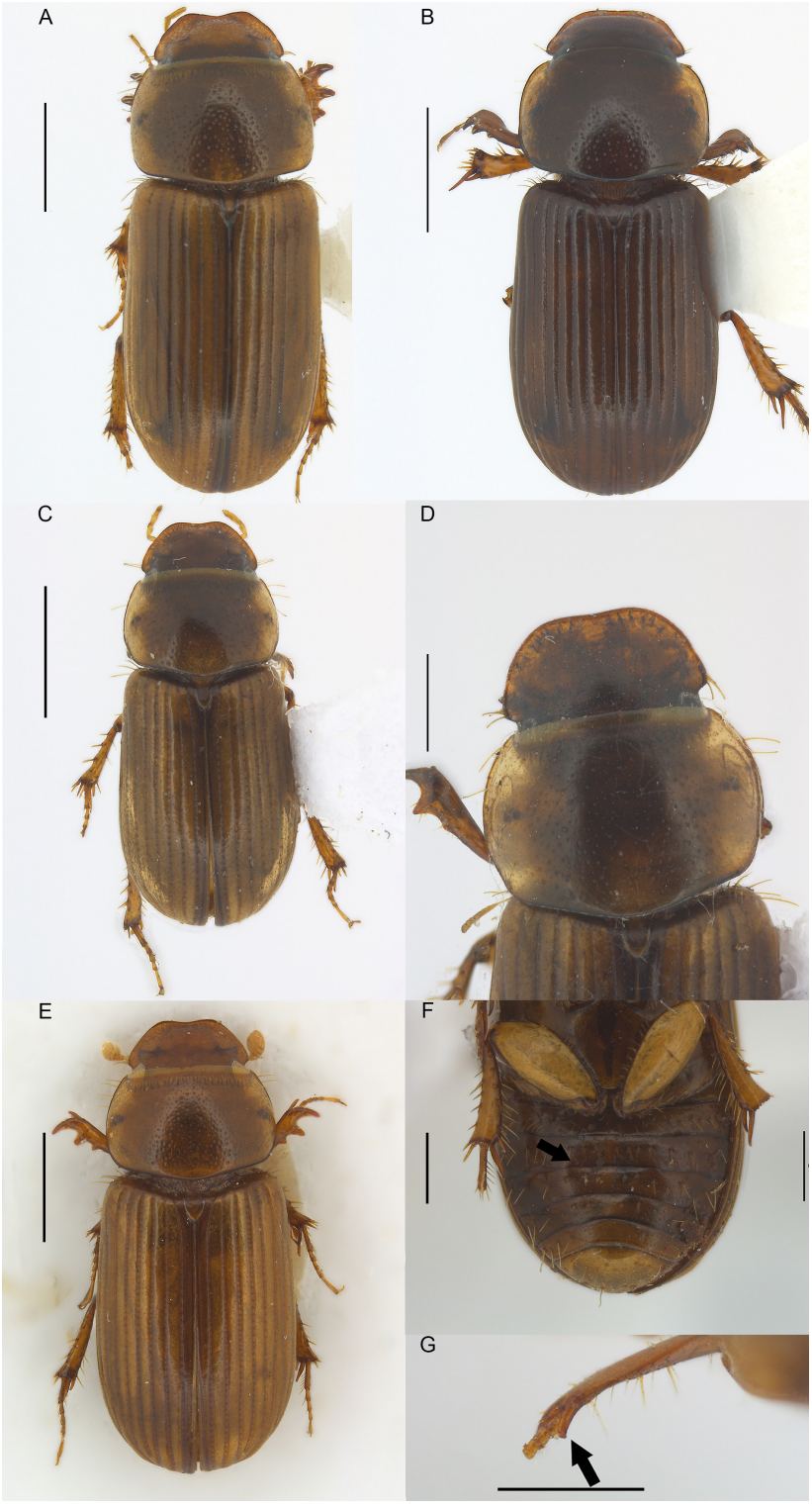

Fig. 1. A. *Aidophus infuscatopennis* (Schmidt, 1909), ♂ (CEMT), Selvíria, Mato Grosso, Brazil, dorsal habitus. **B**. *A. impressus* (Petrovitz, 1970), ♂ (CEMT), Floriano, Piauí, Brazil, dorsal habitus. **C–D**. *A. kolbei* (Schmidt, 1910) (CEMT), Cocalinho, Mato Grosso, Brazil. **C**. ♀ (CEMT), dorsal habitus. **D**. ♂ (CEMT), head dorsal view. **E–G**. *A. flechtmanni* Stebnicka & Dellacasa, 2001, ♂ (CEMT), Selvíria, Mato Grosso, Brazil. **E**. Dorsal habitus. **F**. Spur of protibia. **G**. Abdomen, ventral view (arrow indicate medial foveola). Scale bars: A–C, E = 1 mm; D, F–G = 0.5 mm.

Other material examined

BRAZIL – **Mato Grosso do Sul** • 4 ♂♂, 2 ♀♀; Selvíria, UNESP Farm; 28 Nov. 1993; C.A.H. Flechtmann leg.; Guzera bovine dropping; *Brachiaria decumbens* pasture; CEMT • 2 ♂♂; same data as for preceding 31 Oct. 1993; *Bubalus bubalis* dropping; CEMT • 1 ♂; Inocência, Fazenda Moinho; 19°13′12″ S, 52°9′34″ W; elev. 502 m; 21 Oct. 2018; H.L. Rainho leg; light; CEMT.

Sexual dimorphism

Males with protibial apical spine robust, abruptly downward bent, hook like. Abdomen of males with evident median fovea.

Collecting information

Individuals can be collected with light traps and from bovine feces in pasture of *Urochloa decumbens* (Stapf) R.D. Webster (Dellacasa *et al.* 2001b; Mesquita *et al.* 2017).

Aidophus impressus (Petrovitz, 1970)
Figs 1B, 33A

Didactylia impressa Petrovitz, 1970: 230.

Aidophus impressus – Dellacasa *et al*. 2000b: 202.

Diagnosis

Length 3.8–4.2 mm. Head with fine and coarse punctures; punctures symmetrically distributed; coarse punctures mixed with fine ones; coarse punctures more abundant on frons; clypeus with small emargination and weakly gibbous; finely punctate; gena obtusely angled. Pronotum with punctures of two sizes; larger punctures closer near lateral margins; posterior angles rounded. Elytral interstriae microreticulate; finely punctate; elytral interstriae eight and ten more elevated than others. Apical spine of metatibia somewhat shorter than the first tarsomere; first tarsomere slightly longer than the following three tarsomere combine.

Material examined

BRAZIL – **Piauí** • 2 ♂♂, 2 ♀♀; Floriano; 21 Oct. 2010; L. Carvalho leg; Cerrado s. str.; CEMT.

Sexual dimorphism

Males with head broader and more transverse that of female. Metatibia of male with first tarsomere about the same length of the superior apical spur; first tarsomere slightly longer than the following three tarsomeres. The female first tarsomere is shorter than the superior apical spur and shorter than the following three tarsomeres combined.

Aidophus infuscatopennis (Schmidt, 1909)
Figs 1A, 33B

Aphodius infuscatopennis Schmidt, 1909a: 12.
Aphodius (*Aidophus*) *paraguayanus* Balthasar, 1963: 279.

Didactylia infuscatopennis –Schmidt 1911b: 38.

Diagnosis

Length 3.0–4.0 mm. Head punctate; visibly downward bent, at least anteriorly; clypeus emarginate, margin rounded, convex and subrugosely granulate; frons with larger and more evident punctures.

Pronotum with punctures of two sizes; punctures scarce near lateral margins. Elytra shagreened; interstriae flat with scarce and fine punctation.

Material examined

ARGENTINA – **Corrientes** • 168 specs; Barrio Víctor Colas; 27°28′50″ S, 58°47′18″ W; elev. 64 m; 21 Oct. 2012; M.I. Polesel *et al.* leg.; CEMT. – **Mendoza** • 10 specs; Lavalle, Reserva Biológica Telteca; 9 Dec. 2002; Arriágada and Diéguez leg.; light; CEMT • 187 specs; Desaguadero; 5 Feb. 2017; G. Arriágada leg; light; CEMT. – **San Luis** • 61 spec.; Belgrano, Fdo. El Molle; 33°02′23″ S, 66°30′48″ W; elev. 622 m; 7 Feb. 2017; G. Arriágada leg.; CEMT • 1 spec.; same data as for preceding; 18 Feb.–8 Mar. 2012; human feces; CEMT • 2 specs; same data as for preceding; 14–18 Feb. 2018; J. Jensen leg.; light; CEMT. – **Santiago del Estero** • 1 spec.; Río Jan [Santiago del Estero, Río Salado]; Wagner leg.; CEMT.

BRAZIL – **Mato Grosso do Sul** • 1 spec.; Selvíria, UNESP Farm; 22 Oct. 1991; C.A.H. Flechtmann leg.; *Brachiaria decumbens* pasture; CEMT.

Sexual dimorphism

Males apical spur of protibia stout and flattened, obtusely truncate apically.

Collecting information

Specimens were collected in pastures of *Urochloa decumbens*, inside bovine faecal masses and with light and flight intercept traps (Mesquita *et al.* 2017).

Aidophus kolbei (Schmidt, 1911) (new record)
Figs 1C–D, 33A

Didactylia kolbei Schmidt, 1911b: 36.

Aidophus kolbei – Dellacasa *et al*. 2001b: 206.

Diagnosis

Length 3.0–3.5 mm. Head with clypeus sinuate, punctate with fine and spaced punctures; genal suture evident and somewhat raised; frons with punctures larger than those of clypeus. Pronotum with punctures of different sizes; larger punctures more concentrated laterally; posterior angles obtuse. Elytra microreticulate; interstriae flat with small and spaced punctures. First tarsomere of metatarsus a bit longer than larger apical spine and as long as the next three tarsomeres combined.

Material examined

BRAZIL – **Mato Grosso** • 3 ♂♂, 9 ♀♀; Cocalinho, Fazenda Água Preta; 14°08′22″ S, 51°28′53.33″ W; elev. 250 m; 9 Nov. 2019; M.E. Maldaner and F.Z. Vaz-de-Mello leg.; CEMT.

Sexual dimorphism

Males with head transverse, abdomen with large median fovea. Males with frons finely punctate, females with frons coarsely punctate.

Collecting data

Specimens were collected in pastures of sandy soil.

Genus ***Blackburneus*** Schmidt, 1913

Diagnosis

Length 2.5–5.0 mm. Body oval, glabrous, testaceous, red or brown. Head with clypeus not denticulate, emarginate medially; frontoclypeal suture distinct, not tuberculate. Pronotum punctate with punctures of two sizes; posteriorly lacking marginal line. Elytra without humeral teeth. Dorsal surface of protibia punctate. Meso- and metatibiae with distinct transverse carina in its lateral surface; metatibiae, apically fringed by setae of different sizes.

Remarks

Blackburneus is currently comprised of 50 species distributed across the Neotropical, Neartic and Afrotropical (?) regions (Dellacasa *et al.* 2001a, 2011; Schoolmeesters 2023). In the New World *Blackburneus* comprises 18 species (Dellacasa *et al.* 2011). For keys to all species see Dellacasa *et al.* (2011).

Key to species of *Blackburneus* in Brazil (adapted from Dellacasa *et al.* 2011) (Portuguese version in Supp. file 1)

1. Eyes dilated, equal to 1/3 or 1/2 the width of frons (Fig. 3D, F) 2
– Eyes not dilated, width less than 1/3 that of frons (Figs 2A–F, 3A–B) 3

2. Clypeus slightly sinuate, strongly gibbous medially, frontoclypeal suture depressed .... ***B. laxepunctatus*** (Schmidt, 1910) (Fig. 3D–E)
– Clypeus not at all sinuate, weakly gibbous medially, frontoclypeal suture not depressed ....***B. amazonicus*** Dellacasa, Dellacasa & Gordon, 2012 (Fig. 3F)

3. Elytral with discal interstriae convex 4
– Elytra with discal interstriae flat 6

4. Pronotal punctures of similar size, densely distributed across its hole surface, somewhat closer on sides ..... ***B. richteri*** (Schmidt, 1911) (Fig. 2E–G)
– Pronotum with punctures of two sizes, larger punctures concentrated near lateral margins 5

5. Head with scattered equidistant punctures, with frons punctated by coarser punctures. Pronotum with larger punctures restricted to lateral margins. First tarsomere of metatibiae longer than the following three combined .....***B. thomasi*** Dellacasa, Dellacasa & Gordon, 2011 (Fig. 3A)
– Head densely punctured, punctures of clypeus and frons similar in size. Pronotum with larger punctures scattered near posterior margins, sometimes with a few punctures present on disc, coarse punctures closer near lateral margins. First tarsomere of metatibiae shorter or with same length as the three following combined .....***B. caracaensis*** (Petrovitz, 1970) (Fig. 2C)

6. Clypeus weakly gibbous medially, frontoclypeal suture not depressed 7
– Clypeus strongly gibbous medially, frontoclypeal suture depressed 8

7. Specimens with frons finely punctate ..... ***B. indio*** (Petrovitz, 1973) (Fig. 2A)
– Specimens with frons coarsely punctate ....***B. surinamensis*** Dellacasa, Dellacasa & Gordon, 2011 (Fig. 2D)

8. Clypeus strongly gibbous; gibbosity anteriorly furcate in two oblique carinae ....***B. furcatus*** (Schmidt, 1909) (Fig. 3B–C)
– Clypeus weakly gibbous; gibbosity not anteriorly furcate ....***B. argentinensis*** (Schmidt, 1909) (Fig. 2B)

Blackburneus amazonicus Dellacasa, Dellacasa & Gordon, 2011
Figs 3F, 34B

Blackburneus amazonicus Dellacasa, Dellacasa & Gordon, 2011: 18.

Diagnosis

Length 3.0–3.5 mm. Body light to dark red. Head with punctures of two sizes; fine punctures everywhere distributed; coarser punctures present on frons, sometimes present on clypeus, near frontoclypeal suture; clypeus not sinuate, weakly gibbous; frontoclypeal suture evident; eyes wide, width equivalent to 1/3 or 1/2 that of frons. Pronotum with posterior margin and angles with line of coarse punctures. Elytra with interstriae of disc flat.

Type material examined

Holotype

BRAZIL • 1 ♂; "First label [white paper, typewritten] Brazil: Amazonia/ 70 km N. of Manaus/ Fazenda Porto Alegre/ MCS/ DBFF project/ [handwritten] 15- [typewritten]VI-86/ Bert Klein // Second label [white paper, typewritten] BAIT: HUMAN DUNG/ HAB. MATURE FOREST/ RESERVE: [handwritten] 2309/ NO.: / TIME: [handwritten] AM. // [red paper, printed] *Blackburneus*/ *amazonicus*/ Dellacasa M. & Alii, 2010/ HOLOTYPE. // [white paper, printed] // QR to the left; FSCA 00050480"; FSCA.

Other material examined

BRAZIL – **Acre** • 1 spec.; Assis Brasil; 10°35′44″ S, 69°37′12″ W; 21 Nov. 2016; Ortiz and Borges leg.; CDC light trap; CEMT. – **Amapá** • 1 spec.; Laranjal do Jari; 0°36′29″ S, 52°13′48″ W; 23 Jun. 2017; S. Milheira leg.; pitfall feces; CEMT. – **Amazonas** • 1 spec.; 60 km N of Manaus, Fazenda Esteio, ZF-3, Km 23; 9 Apr. 1985; B.C. Klein leg.; Malaise trap; Reserva 1208; CEMT • 2 specs; same data as for preceding; 16 May 1986; Reserva 1112; INPA • 1 spec.; same data as for preceding; CEMT • 1 spec.; same data as for preceding; 21 May 1986; INPA • 1 spec.; same data as for preceding; 10 Jun. 1986; Reserva 1208; INPA • 1 spec.; same data as for preceding; 11 Jun. 1986; INPA • 1 spec.; Manaus PDBFF, Dimana, 10 ha; 2°20′ S, 60°06′ W; 16 Mar. 2005; M.R. Radtke leg.; dung-pitfall; INPA • 1 spec.; same data as for preceding; PDBFF, Km 41; 2°26′ S, 59°45′ W; 8 Apr. 2005; INPA • 1 spec.; Reserva Ducke; 2°55′ S; 59°58′ W; 1 Mar. 2005; M.R. Radtke leg.; dung-pitfall; CEMT • 2 specs; same data as for preceding; INPA • 1 spec.; Manaus ZF-03, Km 41; 1996–1997; A. Ellen leg.; in feces of *Alouatta seniculus*; CEMT • 1 spec.; Manaus, P Q. Laranjeiras; 6 Jun. 1981; J. Arias leg.; INPA • 1 spec.; same data as for preceding; 3 Jun. 1981; INPA • 2 specs; Manaus; 29 Nov. 1977; B.C. Ratcliffe leg.; INPA • 1 spec.; same data as for preceding; 6 Dec. 1977; CEMT • 2 specs; same data as preceding; 20 Dec. 1977; CEMT • 9 specs; same data as preceding; INPA • 1 spec.; same data as for preceding; 27 Jun. 1978; CEMT • 2 specs; same data as for preceding; INPA • 1 spec.; same data as for preceding; 25 May 1978; INPA • 1 spec.; Manaus, Reserva Ducke, 26 km NW of Manaus; 25 Oct. 1977; CEMT • 1 spec.; same data as for preceding; INPA • 1 spec.; same data as for preceding; 11 Apr. 1978; CEMT • 2 specs; same data as for preceding; INPA • 1 spec.; same data as for preceding; 30 May 1978; CEMT • 1 spec.; same data as for preceding; 30 May 1978; INPA • 1 spec.; same data as for preceding; 13 Jun. 1978; CEMT • 10 specs; same data as for preceding; INPA • 1 spec.; same data as for preceding; 1 Aug. 1978; INPA • 1 spec.; same data as for preceding; Reserva Ducke, BR010, Km 26; 4 Oct. 1977; CEMT • 1 spec.; same data as for preceding; 3 Jan. 1978; INPA • 3 specs; same data as for preceding; 10 Jan. 1978; INPA • 1 spec.; same data as for preceding; 17 Jan. 1978; INPA • 1 spec.; same data as for preceding; 31 Jan. 1978; CEMT • 1 spec.; same data as for preceding; INPA • 1 spec.; same data as for preceding; 7 Feb. 1978; INPA • 1 spec.; same data as for preceding; 14 Mar. 1978; INPA • 1 spec.; same data as for preceding; 28 Mar. 1978; CEMT • 1 spec.; same data as for preceding; 15 Aug. 1978; INPA • 1 spec.; Manaus, Reserva Ducke, AM.010, Km 28; 13 Sep. 1977; INPA • 2 specs; same data as for preceding;

Reserva Ducke; Jun. 2011; J. Bonanomi leg.; CEMT • 4 specs; same data as for preceding; 3°00′20″ S, 59°56′25″ W; 16 May 2012; CEMT • 1 spec.; Mamicoré, BR319, Km 450, Resex Lago Capanã Grande; 5°54′33″ S, 62°23′56″ W; elev. 850 m; 30 Oct.–1 Nov. 2019; A.R. Azevedo leg.; human feces; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, P.E. Cristalino; 9°32′45″ S, 55°54′56″ W; elev. 248 m; 15–17 Nov. 2019; R.A. Azevedo leg.; human feces; CEMT • 3 specs; same data as for preceding; 9°40′59″ S, 55°54′57″ W; elev. 260 m; 15–17 Nov. 2019; CEMT • 11 specs; same data as for preceding; 9°35′50″ S, 55°53′40″ W; elev. 287 m; 15–17 Nov. 2019; CEMT • 2 specs; Brasnorte, Fazenda Hermínia; 11°57′02″ S, 58°14′49″ W; elev. 311 m; 29–30 Nov. 2017; A.F. Machado leg.; pitfall, floresta; CEMT • 2 specs; same data as for preceding; elev. 309 m; 29 Nov.–1 Dec. 2017; borda, human feces; CEMT • 1 spec.; same data as for preceding; 11°56′59″ S, 58°14′47″ W; elev. 304 m; 29 Nov.–1 Dec. 2017; CEMT • 1 spec.; same data as for preceding; 11°57′02″ S, 58°14′49″ W; elev. 311 m; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 9°50′19″ S, 58°15′3″ W; 13 Dec. 2009; Vaz-de-Mello leg.; matinha borda [matinha border]; pitfall; CEMT • 2 specs; same data as for preceding; 9°51′40″ S, 58°13′′12″ W; 2–4 Nov. 2021; J. Mariano *et al.* leg.; human feces; prainha; CEMT • 1 spec.; same data as for preceding; 9°50′47″ S, 58°14′09″ W; Talhão 46b, human feces; CEMT • 1 spec.; same data as for preceding; 9°50′44″ S, 58°14′3″ W; CEMT • 2 specs; same data as for preceding; 9°51′31″ S, 58°14′23″ W; Talhão 37; human feces; CEMT • 1 spec.; same data as for preceding; 9°51′28″ S, 58°14′23″ W; CEMT • 2 specs; same data as for preceding; 9°51′26″ S, 58°14′24″ W; CEMT • 1 spec.; same data as for preceding; 9°50′53″ S, 58°15′19″ W; 4–6 Nov. 2021; morrinho; human feces; CEMT • 1 spec.; same data as for preceding; 9°51′01″ S, 58°14′11″ W; 5–7 Nov. 2021; Talhão 48b; human feces; CEMT • 1 spec.; same data as for preceding; 9°49′29″ S, 58°16′14″ W; Talhão 70A; human feces; CEMT • 1 spec.; same data as for preceding; 9°49′26″ S, 58°16′15″ W; CEMT • 4 specs; same data as for preceding; 9°51′47″ S, 58°15′50″ W; Talhão 14b; human feces; CEMT • 4 specs; same data as for preceding 9°51′48″ S, 58°15′50″ W; CEMT • 1 spec.; same data as for preceding; 9°50′57″ S, 58°14′03″ W; Talhão 47; human feces; CEMT • 3 specs; same data as for preceding; 9°52′08″ S, 58°15′38″ W; 18–20 Oct. 2021; Talhão 19; human feces; CEMT • 1 spec.; same data as for preceding; 9°52′09″ S, 58°15′39″ W; CEMT • 4 specs; same data as for preceding; 9°50′49″ S, 58°14′4″ W; 19–21 Oct. 2021; Talhão 46b; human feces; CEMT • 1 spec.; same data as for preceding; 9°51′01″ S, 58°14′53″ W; Talhão 37; human feces; CEMT • 3 specs; same data as for preceding; 9°49′15″ S, 58°17′18″ W; 27–29 Oct. 2021; Trilha Castanheira, human feces; CEMT • 10 specs; same data as for preceding; 9°50′23″ S, 58°15′13″ W; 28–30 Oct. 2021; matinha, human feces; CEMT • 6 specs; same data as for preceding; 9°50′25″ S, 58°15′11″ W; CEMT • 5 specs; same data as for preceding; 9°50′27″ S, 58°15′8″ W; CEMT • 5 specs; same data as for preceding; 9°50′26″ S, 58°15′10″ W; CEMT • 1 spec.; same data as for preceding; 9°49′14″ S, 58°15′10″ W; ppbio; human feces; CEMT • 2 specs; same data as for preceding; 9°49′12″ S, 58°15′30″ W; CEMT • 2 specs; same data as for preceding; 9°49′17″ S, 58°15′30″ W; CEMT • 1 spec.; Diamantino; 16 Mar. 2018; L.G. Nunes and E. Carvalho leg.; CEMT • 1 spec.; same data as for preceding; 13°48′7″ S, 56°41′32″ W; L.G. Nunes and E. Carvalho leg.; human feces; CEMT • 1 spec.; same data as for preceding; 13°51′2″ S, 56°41′8″ W; 17 Mar. 2018; CEMT • 2 specs; São José do Rio Claro; 15°51′32″ S, 46°41′04″ W; 16 Mar. 2018; L.G. Nunes and E. Carvalho leg.; human feces; CEMT • 2 specs; same data as for preceding; 15°53′50″ S, 56°40′42″ W; 29 Jun. 2018; CEMT • 3 specs; same data as for preceding; 30 Jun. 2018; CEMT. – **Pará** • 1 spec.; Almeirim, Jari; 4 Feb. 2011; F.M. França leg.; feces; CEMT • 19 specs; same data as for preceding; 5 Feb. 2011; CEMT • 9 specs; same data as for preceding; 9 Feb. 2011; CEMT • 72 specs; same data as for preceding; 16 Feb. 2011; CEMT • 91 specs; same data as for preceding; 19 Feb. 2011; CEMT • 77 specs; same data as for preceding; 23 Feb. 2011; CEMT • 63 specs; same data as for preceding; 26 Feb. 2011; CEMT • 39 specs; same data as for preceding; 2 Mar. 2011; CEMT • 23 specs; same data as for preceding; 5 Mar. 2011; CEMT • 2 specs; same data as for preceding; 9 Mar. 2011; CEMT • 22 specs; same data as for preceding; 12 Mar. 2011; CEMT • 36 specs; same data as for preceding; 16 Mar. 2011; CEMT • 22 specs; same data as for preceding; 19 Mar. 2011; CEMT • 2 specs; same data as for preceding; 23 Feb. 2016; CEMT • 1 spec.; Belém, Comunidade Boa Vista; 1°30′57″ S, 48°26′18″ W; 12 Feb. 2014; Silva *et al.* leg.; human feces;

CEMT • 2 specs; same data as for preceding; 1°31′15″ S, 48°26′17″ W; CEMT • 2 specs; same data as for preceding; 1°31′14″ S, 48°26′12″ W; CEMT • 1 spec.; same data as for preceding; 1°31′15″ S, 48°26′18″ W; CEMT • 1 spec.; Belterra; 3°27′52″ S, 54°51′26″ W; 15 Mar. 2019; F. França leg.; logging forest fire; human and pig dung; CEMT • 3 specs; same data as for preceding; FLONA-Tapajós; 3°25′46″ S, 54°50′33″ W; logging forest fire; CEMT • 1 spec.; same data as for preceding; 3°20′9″ S, 54°57′21″ W; 20 Mar. 2019; primary forest; CEMT • 9 specs; same data as for preceding; 3°01′6″ S, 55°00′17″ W; 21 Mar. 2019; CEMT • 1 spec.; same data as for preceding; 3°01′43″ S, 55°00′40″ W; CEMT • 4 specs; same data as for preceding; 3°19′12″ S, 54°57′37″ W; 22 Mar. 2019; CEMT • 2 specs; same data as for preceding; 3°20′9″ S, 54°57′21″ W; CEMT • 2 specs; same data as for preceding; 3°16′58″ S, 54°51′15″ W; 25 Mar. 2019; secondary forest; CEMT • 1 spec.; same data as for preceding; 3°1′6″ S, 55°20′17″ W; primary forest; CEMT • 6 specs; Bragança; 1°10′46″ S, 46°40′54″ W; 5 Mar. 2019; F.M. França leg.; primary forest; human and pig dung; CEMT • 1 ♂, 2 specs; same data as for preceding; 1°10′39″ S, 46°39′54″ W; 5 Mar. 2019; F.M. França leg.; secondary forest; human and pig dung; CEMT • 2 specs; Marabá; 5°47′04″ S, 48°54′55″ W; 21 Feb. 2019; F.M. França leg.; logging forest fire; human and pig dung; CEMT • 1 spec.; Mojuí dos Campos; 2°41′36″ S, 54°29′43″ W; 14 Mar. 2019; F.M. França leg.; logging forest fire; human and pig dung; CEMT • 2 specs; Santarém; 3°07′49″ S, 54°51′24″ W; 25 Mar. 2019, F. França and V. Neto leg.; logg. for. fire; human and pig dung; CEMT • 4 specs; same data as for preceding; FLONA-Tapajós; 3°19′12″ S, 55°57′37″ W; 22 Mar. 2019; F. França leg.; primary forest; CEMT • 2 specs; Usina Hidrelétrica de Curuá-una; 2°48′45″ S, 54°17′34″ W; 22 Jun. 2018; Ganança and V. Neto leg.; human feces; CEMT • 1 spec.; same data as for preceding; 2°47′47″ S, 54°17′42″ W; CEMT • 4 specs; same data as for preceding; 23 Jun. 2018; CEMT. – **Rondônia** • 2 specs; Parque Estadual Guajará-Mirim; 10°18′ S, 64°32′ W; 23 Nov. 2019; M.A.P.A. Silveira leg.; human feces; CEMT • 1 spec.; same data as for preceding; 25 Nov. 2016; CEMT. – **Roraima** • 2 specs; Cantá; Nov. 1996; Vaz-de-Mello and Ribeiro leg.; CEMT.

FRENCH GUIANA • 6 specs; Cayenne, Monte Proche du Munt; 4°18′58″ N, 53°17′10″ W; 2 Nov. 2013; SAEG leg.; Baruol (BAR), FIT (V); CEMT • 1 spec.; Saint Laurent de Maroni, Belvedère Saül; 3°37′22″ S, 53°12′57″ W; elev. 326 m; 14 Mar. 2011; SAEG leg.; FIT; CEMT • 1 spec.; same data as for preceding; 30 Mar. 2011; FIT-V5; CEMT • 1 spec.; same data as for preceding; 20 May 2011; FIT(PIV); CEMT.

Sexual dimorphism

Males with metaventrite plate concave, longitudinal groove evident; females with metaventrite plate somewhat flat, longitudinal groove weak.

Collecting information

Specimens were collected on human or pig feces from regions of mature tropical forests, secondary and logging forests (Dellacasa *et al*. 2011).

Blackburneus argentinensis (Schmidt, 1909)
Figs 2B, 34A

Aphodius argentinensis Schmidt, 1909d: 101.

Aphodius (*Blackburneus*) *argentinensis* – Schmidt 1913: 133.
Blackburneus argentinensis – Skelley *et al*. 2007: 2.

Diagnosis

Length 4.0–4.5 mm. Body wide, reddish testaceous. Head with sparse punctures; clypeus with sparse and almost imperceptibly small punctures; emarginate medially; distinctively gibbous; frontoclypeal suture

evident, medially depressed; frons with coarse punctures. Pronotum with punctures of two sizes; large punctures scattered, closer near lateral margins. Elytra shagreened; interstriae flat, with two rows of small punctures; interstria near elytral suture darker than the others; fifth interstria, from elytral suture, wider than the rest near the anterior margin of elytra.

Material examined

BRAZIL – **Mato Grosso do Sul •** 1 spec.; Selvíria, UNESP farm; 20 Dec. 1991; S.R. Rodrigues; Guzera bovine dropping; *Brachiaria decumbens* pasture; CEMT.

Sexual dimorphism

Male with frontoclypeal margin elevated medially; protibial apical spine sub-cylindrical, apically rounded.

Collecting information

Individuals were collected at altitudes ranging from 250 to 1100 metres. Specimens collected within feces of Guzera cattle droppings in pastures of *Urochloa decumbens* and with flight intercept traps (Dellacasa *et al.* 2011).

Blackburneus caracaensis (Petrovitz, 1970)
Figs 2C, 33B

Aphodius (*Blackburneus*) *caracaensis* Petrovitz, 1970: 228.
Aphodius (*Blackburneus*) *brasilicola* Balthasar, 1971: 60.

Blackburneus caracaensis – Skelley *et al*. 2007: 2.

Diagnosis

Length 2.5–3.0 mm. Body brown. Head entirely punctate with moderate in size punctures; punctures on frons no bigger than those of clypeus; clypeus sinuate, weakly gibbous; frontoclypeal suture finely impressed. Pronotum with moderate and large punctures; moderate punctures evenly spread across pronotal surface; large punctures scarce on pronotal disc and near posterior margin, closely grouped near lateral margins. Elytral interstriae finely punctate and microreticulate, microreticulation stronger closer to posterior margins; interstriae somewhat convex. First metatarsomere longer than large apical spur.

Material examined

BRAZIL – **Bahia •** 4 specs; Encruzilhada; Nov. 1972; M. Alvarenga leg.; CEMT. – **Distrito Federal •** 2 specs; Planaltina, Embrapa Cerrados; 15°36′20″ S, 47°42′26″ W; 30 Nov. 2005; C. Oliveira leg.; fragmento cerrado [fragment of cerrado]; light; CEMT. – **Mato Grosso •** 1 spec.; Chapada dos Guimarães; 15°24′31″ S, 55°45′53″ W; 2 Dec. 2015; A. Frolov and L. Akhmetova leg.; light; CEMT.

Sexual dimorphism

Slight. Males with apical spur of protibia stout, inwardly curved, more strongly microreticulate. Females with apical spur slender and feebly convex.

Collecting information

Specimens have been collected at altitudes ranging from 800 to 1380 metres above sea level. Black light and flight intercept traps are methods that can be used for collecting this species (Dellacasa *et al.* 2011).

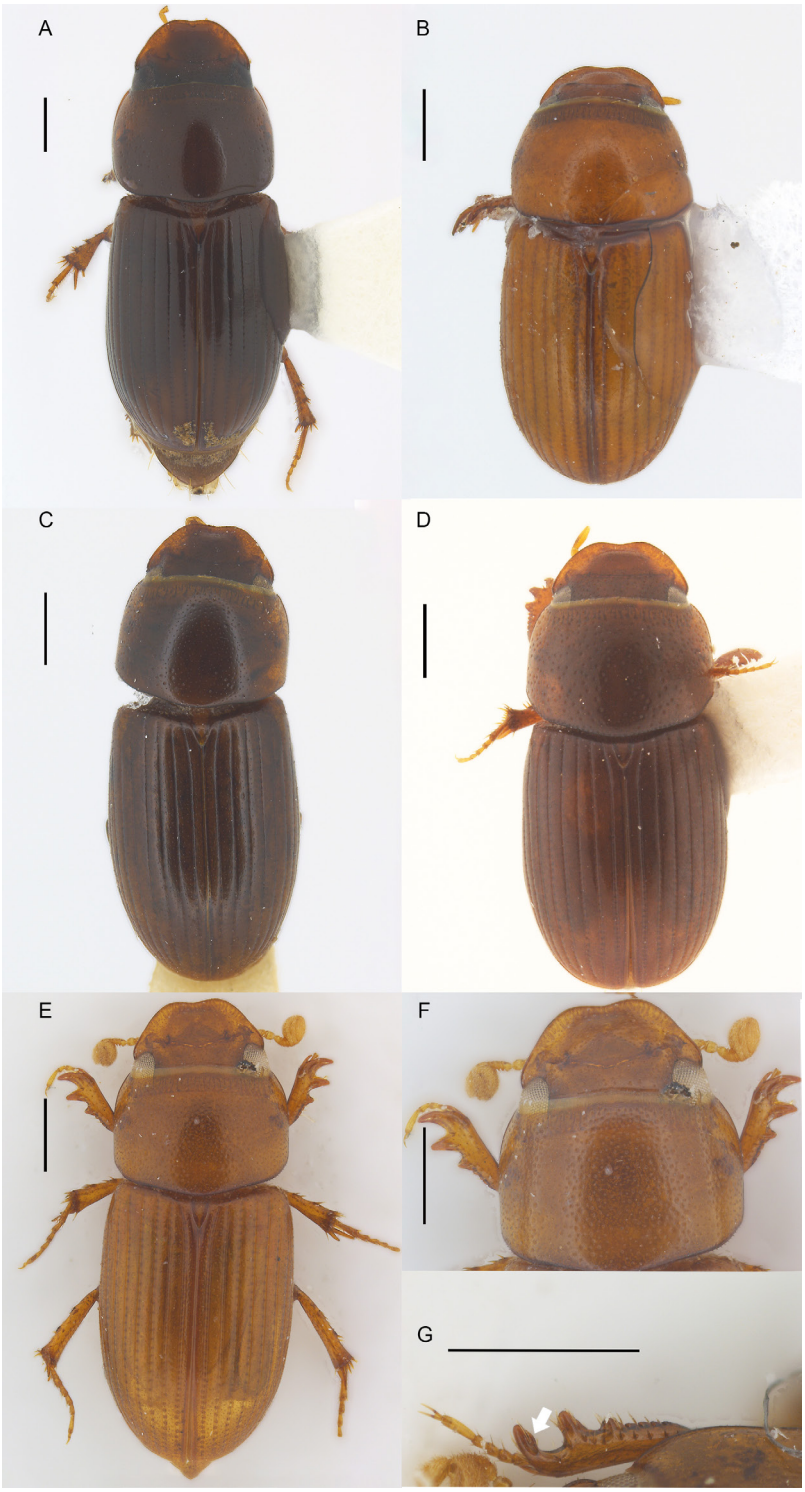

Fig. 2. A. *Blackburneus indio* (Petrovitz, 1973) (CEMT), Embrapa Cerrados, Planaltina, Brazil, dorsal habitus. **B**. *B. argentinensis* (Schmidt, 1909) (CEMT), Selvíria, Mato Grosso, Brazil, dorsal habitus. **C**. *B. caracaensis* (Petrovitz, 1970) (CEMT), Encruzilhada, Bahia, Brazil dorsal habitus. **D**. *B. surinamensis* Dellacasa, Dellacasa & Gordon, 2011 (CEMT), Reserva Ducke, Amazonas, Brazil, dorsal habitus. **E–G**. *B. richteri* (Schmidt, 1910). **E**. ♀ (CEMT), Selvíria, Mato Grosso, Brazil, pronotum dorsal habitus. **F–G**. ♂ (CEMT), Selvíria, Mato Grosso, Brazil. **F**. Dorsal habitus. **G**. Pronotum, dorsal view (arrow indicates distal teeth of protibia with proximal margin dilated and angled). Scale bars = 0.5 mm.

Blackburneus furcatus (Schmidt, 1909)
Figs 3B–C, 34B

Aphodius furcatus Schmidt, 1909a: 10.

Aphodius (*Blackburneus*) *furcatus* – Schmidt 1913: 137.
Blackburneus furcatus – Paulian 1942: 75.

Diagnosis

Length 2.5–3.0 mm. Body reddish testaceous. Head, up to the frontoclypeal suture, with fine punctation; coarse punctures restricted to frons; clypeus medially emarginate; with evident, anteriorly furcate carina resulting in two oblique carina; frontoclypeal suture medially depressed, elevated laterally. Pronotum with punctures of two sizes; small punctures distributed throughout pronotal surface; large punctures concentrated near lateral margins. Elytral interstriae shagreened, flat; finely punctate.

Material examined

ARGENTINA – **Córdoba** • 5 specs; 10 km NW of Alpa Corral; 8–9 Feb. 2009; F.C. Ocampo leg.; CEMT.

BRAZIL – **Distrito Federal** • 2 specs; Gama-Cabeça-de-Veado; 15°56′49″ S, 47°56′58″ W; 15 Dec. 2018; W.L. Cunha leg.; cerrado s. str.; pitfall with feces; CEMT • 1 spec.; same data as for preceding; 29 Nov. 2018; CEMT • 1 spec.; Brasília; elev. 1100 m; Jan. 2001; N. Degallier leg.; light; CEMT. – **Mato Grosso** • 1 spec.; Chapada dos Guimarães, Fazenda Jardim; 9 Jun. 2012; V.C. Jorge leg.; CEMT • 1 spec.; same data as for preceding; 29 Sep. 2012; CEMT • 1 spec.; same data as for preceding; 13 Oct. 2012; CEMT • 1 spec.; Chapada dos Guimarães, Santuário dos Elefantes; 15°18′55″ S, 55°24′5″ W; 22 Jan. 2020; H. Sehn *et al.* leg.; cow feces; CEMT • 1 spec.; Porto Estrela, Estação Ecológica [Ecological Station] Serra das Araras, Trilha Boca do José; Nov. 2017; T.F. Conceição leg.; Cerrado; pitfall; CEMT. – **Mato Grosso do Sul** • 1 ♀; Selvíria; UNESP farm; 20°22′41″ S, 51°25′10″ W; 12 Jan. 2005; F.W. Mesquita leg.; *Brachiaria decumbens* pasture; black light; CEMT • 1 ♂; same data as for preceding; 27 Mar. 2005; CEMT • 1 ♂; same data as for preceding; 3 Dec. 2005; CEMT • 1 ♂; same data as for preceding; 20°22′53″ S, 51°24′39″ W; 9 Jan. 2007; CEMT • 1 ♀; same data as for preceding; 20°22′41″ S, 51°26′10″ W; F. Oikawa leg.; CEMT • 1 ♂; Santa Ofélia farm; 1 May 2007; C.A.H. Flechtmann leg.; *Brachiaria brizantha* pasture; bovine droppings; CEMT. – **Minas Gerais** • 1 spec.; Itumirim, Serra do Janela; 21.340° S, 44.801° W; 19 Oct. 2016; L. Vieira and F.Z. Vaz-de-Mello leg.; light; CEMT • 1 spec.; same data as for preceding; 21°20′24″ S, 44°48′06″ W; CEMT. – **Pará** • 1 spec.; Jaguariaiva, Parque Estadual do Cerrado; 3 Feb. 2011; Grossi and Parizotto leg.; CEMT • 3 specs; Marabá; 5°42′4″ S, 49°13′45″ W; 22 Feb. 2019; F. França leg.; secondary forest; human and pig dung; CEMT.

Sexual dimorphism

Subtle. Females with punctures of pronotal disc denser compared with males.

Collecting information

Blackburneus furcatus can be found at altitudes up to 1000 m. Specimens can be collected with light traps and flight intercept traps. Some were collected in *Urochloa brizantha* (A.Rich.) R.D.Webster and *Urochloa decumbens* pastures with the methods previously mentioned and with traps baited with bovine dung (Dellacasa *et al.* 2011; Mesquita *et al.* 2017).

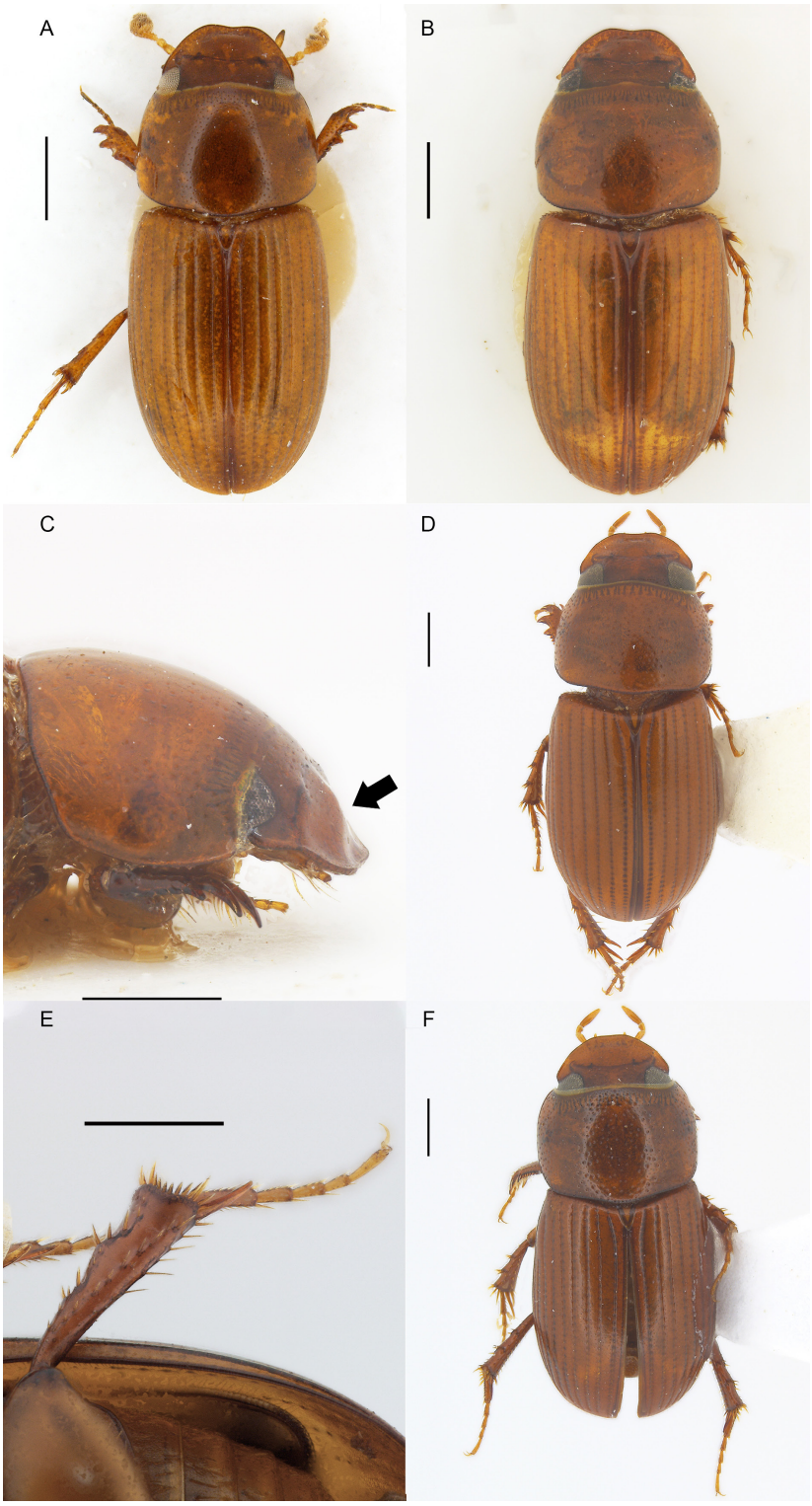

Fig. 3. A. *Blackburneus thomasi* Dellacasa, Dellacasa & Gordon, 2011, ♂ (CEMT), Selvíria, Mato Grosso, Brazil, dorsal habitus. **B–C**. *B. furcatus* (Schmidt, 1909), ♀ (CEMT), Selvíria, Mato Grosso, Brazil. **B**. Dorsal habitus. **C**. Head, lateral view (arrow indicates longitudinal carina). **D–E**. *B. laxepunctatus* (Schmidt, 1910) (CEMT), Assis Brasil, Acre, Brazil. **D**. Dorsal habitus. **E**. Metatibia. **F**. *B. amazonicus* Dellacasa, Dellacasa & Gordon, 2011 (CEMT), Laranjal do Jari, Amapá, Brazil, dorsal habitus. Scale bars: A–F = 0.5 mm.

Blackburneus indio (Petrovitz, 1973)
Figs 2A, 33B

Aphodius (*Blackburneus*) *indio* Petrovitz, 1973: 143.

Blackburneus indio – Skelley *et al*. 2007: 2.

Diagnosis

Length 3.5–4.5 mm. Body elongate, sub-parallel-sided, brown with anterior and lateral margins of head and pronotum lighter. Clypeus sinuate, medially weakly convex; frontoclypeal suture evident. Pronotum punctate with punctures of two sizes; coarse punctures near lateral margins; small punctures present everywhere. Elytra shagreened; interstriae with two rows of small punctures.

Material examined

BRAZIL – **Distrito Federal** • 27 specs; Planaltina, Embrapa Cerrados, fragment of cerrado; 15°36′20″ S, 47°42′26″ W; 23 Sep. 2005; C. Oliveira leg.; light; CEMT. – **Mato Grosso** • 1 spec.; Chapada dos Guimarães, Santuário dos Elefantes; 2 Nov. 2019; Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; 15°18′50″ S, 55°24′29″ W; 21 Jan. 2020; H. Sehn *et al.* leg.; elephant feces; CEMT • 2 specs; same data as for preceding; 15°18′55″ S, 55°24′14″ W; 22 Jan. 2020; CEMT • 1 spec.; same data as for preceding; horse feces; CEMT • 8 spec.; same data as for preceding; 23 Jan. 2020; elephant feces; CEMT • 3 specs; same data as for preceding; 15°18′55″ S, 55°24′05″ W; 23 Jan. 2020; horse feces; CEMT • 4 specs; same data as for preceding; 15°18′50″ S, 55°24′12″ W; 24 Jan. 2020; elephant feces; CEMT • 9 spec.; same data as for preceding; 15°18′55″ S, 55°24′14″ W; 25 Jan. 2020, H. Sehn *et al*. leg.; CEMT • 15 specs; same data as for preceding; H. Sehn *et al*. leg.; cow feces; CEMT • 5 specs; same data as for preceding; 15°18′55″ S, 55°24′07″ W; CEMT • 1 spec.; same data as for preceding; 15°18′55″ S, 55°24′14″ W; 25 Jan. 2020; horse feces; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 9°50′19″ S, 58°15′3″ W; 25 Oct. 2014; A. Asenjo leg.; light; CEMT • 1 spec.; Juína, Fazenda Quiles; 29 Nov. 2012; N. Degallier leg.; carcaça; CEMT • 1 spec.; Santo Antônido do Leverger, Águas quentes; 23 Nov. 2016; A. Frolov and M. Cupello leg.; UV light; CEMT. – **Mato Grosso do Sul** • 1 spec.; Campo Grande; 1990–1992; I. Bianchin leg.; CEMT. – **Minas Gerais** • 1 spec.; Campanha, Rod. Vital Brazil; 21°47′49″ S, 45°25′40″ W; 5 Jun. 2016; F. França leg.; CEMT.

Sexual dimorphism

Males with medial longitudinal groove of metaventrite anteriorly foveate, females without fovea.

Collecting information

Blackburneus indio was found at altitudes up to 980 metres. Specimens can be collected with UV light traps and are attracted to feces of elephant, cattle and *Tapirus* Brisson, 1762 (Dellacasa *et al.* 2011; Mesquita *et al.* 2017).

Blackburneus laxepunctatus (Schmidt, 1910)
Figs 3D–E, 35A

Aphodius (*Blackburneus*) *laxepunctatus* Schmidt, 1913: 137.

Blackburneus laxepunctatus – Skelley *et al*. 2007: 2.

Diagnosis

Length 3.0–4.5 mm. Body, light to dark red. Head with punctures of two sizes; fine punctures mixed with coarse punctures, the latter more numerous on frons; clypeus slightly emarginate; strongly gibbous

medially; frontoclypeal suture evident, medially depressed; eyes wide, equal to half the length between them. Pronotum with punctures large and small; small punctures regularly spaced on the pronotal surface; large punctures closer and more abundant near lateral margins. Elytra shagreened; striae fine, finely punctate; interstriae flat, with two rows of small punctures.

Type material examined

Lectotype

BRAZIL • ♀; "[white paper, handwritten] São Paulo, Brasilien. // [white paper, handwritten] Laxepunct./ m. // [orange paper, typewritten] TYPUS. // [brown paper, typewritten] 121. // [red paper printed] *Aphodius laxepunctatus/* Schmidt A., 1910/ LECTOTYPUS/ Dellacasa M. & G. des., 2002. // [green paper, printed] Naturhistoriska/ Riksmuseet/ Stockholm/ Loan no 630/00. // [white paper, printed] *Blackburneus/ laxepunctatus/* (Schmidt A., 1910)/ Dellacasa M. & G. det., 2002. // [white paper, printed] NHRS-ALJB/0000000507"; NRM.

Paralectotypes

BRAZIL • 1 ♂; "[white paper, handwritten] São Paulo, Brasilian. // [red paper printed] *Aphodius laxepunctatus/* Schmidt A., 1910/ LECTOTYPUS/ Dellacasa M. & G. des., 2002. // [green paper, printed] Naturhistoriska/ Riksmuseet/ Stockholm/ Loan no 633/00. // [white paper, printed] NHRS-ALJB/0000000508"; NRM • 1 ♂; "[white paper, handwritten] São Paulo, Brasilian. // [red paper printed] *Aphodius laxepunctatus/* Schmidt A., 1910/ LECTOTYPUS/ Dellacasa M. & G. des. , 2002. // [green paper, printed] Naturhistoriska/ Riksmuseet/ Stockholm/ Loan no 635/00. // [white paper, printed] NHRS-ALJB/0000000509"; NRM.

Other material examined

BRAZIL – **Acre** • 1 spec.; Assis Brasil; 10°35′44″ S, 69°37′12″ W; 20 Sep. 2016; Otriz and Borges leg.; CDC light trap; CEMT • 1 spec.; same data as for preceding; 23 Sep. 2016; CEMT • 1 spec.; Mâncio Lima, P.N. Serra do Divisor; 7°27′04″ S, 73°38′53″ W; elev. 225 m; 6–8 Dec. 2019; R.A. Azevedo leg.; human feces; CEMT • 6 specs; same data as for preceding; 7°27′04″ S, 73°38′57″ W; CEMT • 2 specs; same data as for preceding; 7°24′60″ S, 73°37′59″ W; elev. 254 m; CEMT • 16 specs; same data as for preceding; 7°26′46″ S, 79°39′28″ W; elev. 236 m; 7–9 Dec. 2019; CEMT • 1 spec.; Rio Branco, Fazenda Catuaba; Mar. 1997; F.Z. Vaz-de-Mello *et al.* leg.; primary forest; CEMT. – **Amapá** • 2 specs; Laranjal do Jari; 0°58′06.4″ S, 52°44′40.5″ W; 4–6 Jun. 2017; S. Milheiras leg.; pitfall feces; CEMT • 1 spec.; same data as for preceding; 0°35′29″ S, 52°13′48″ W; 23 Jun. 2017; CEMT. – **Amazonas** • 1 spec.; 7 Feb. 1978; B.C. Ratcliffe leg.; INPA • 3 specs; 90 km N of Manaus; Oct.–Nov. 1996; E. Andresen leg.; CEMT • 1 spec.; Borba, BR-319, Km 220; 4°23′26″ S, 60°56′11″ W; 30 Nov. 2015; D. Pires leg.; human feces; CEMT • 1 spec.; Caseiro, BR-319, Km 168; 4°08′58″ S, 60°43′44″ W; 2 Dec. 2015; D. Pires leg.; human feces; CEMT • 3 specs; same data as for preceding; 4°07′58″ S, 60°44′09″ W; CEMT • 1 spec.; same data as for preceding; 4°08′28″ S, 60°43′57″ W; CEMT • 1 ♀, 1 spec.; same data as for preceding; 4°09′28″ S, 60°43′32″ W; CEMT • 1 ♂, 2 specs; same data as for preceding; 04°07′39″ S, 60°43′43″ W; 3 Dec. 2015; CEMT • 2 specs; same data as for preceding; 4°08′09″ S, 60°43′31″ W; CEMT • 2 specs; same data as for preceding; 4°08′40″ S, 60°43′20″ W; CEMT • 2 specs; same data as for preceding; 4°09′10″ S, 60°43′08″ W; CEMT • 1 ♂, 7 specs; Manaquiri, BR-319, Km 100; 3°40′34″ S, 60°17′46″ W; 6 Dec. 2015; D. Pires leg.; human feces; CEMT • 1 spec.; same data as for preceding; 3°41′08″ S, 60°18′40″ W; CEMT • 2 specs; same data as for preceding; 3°40′57″ S, 60°19′24″ W; 7 Dec. 2015; CEMT • 2 specs; same data as for preceding; 3°40′07″ S, 60°18′03″ W; CEMT • 1 spec.; same data as for preceding; 3°40′23″ S, 60°18′29″ W; CEMT • 3 specs; Manaus ZF-03, Km 41; 1996–1997; B.C. Ratcliffe leg.; in feces of *Alouatta seniculus*; CEMT • 4 specs; same data as for preceding; INPA • 3 specs; Manaus, Reserva Adolfo Ducke; 2°55′ S, 59°58′ W; 1 Mar. 2005; M. Radtke leg.; dung-pitfall; CEMT, INPA • 3 specs; same data as for preceding; 3°00′20″ S, 59°56′25″ W; 16 May 2012; J. Bananomi leg.; CEMT • 1 spec.; same data as for preceding; Reserva Ducke, BR010, Km 26; 17 Jan. 1978;

B.C. Ratcliffe leg.; INPA • 1 spec.; same data as for preceding; 26 km NW of Manaus; 13 Sep. 1977; B.C. Ratcliffe leg.; dung-pitfall trap; INPA • 1 spec.; same data as for preceding; 25 Oct. 1977; INPA • 1 spec.; same data as for preceding; 15 Nov. 1977; INPA • 1 spec.; same data as for preceding; 20 Nov. 1977; CEMT • 1 spec.; same data as for preceding; INPA • 1 spec.; same data as for preceding; 22 Nov. 1977; CEMT • 1 spec.; same data as for preceding; 6 Dec. 1977; INPA • 1 spec.; same data as for preceding; 13 Dec. 1977; INPA • 1 spec.; same data as for preceding; 7 Mar. 1978; INPA • 1 spec.; same data as for preceding; 14 Mar. 1978; INPA • 1 spec.; same data as for preceding; 21 Mar. 1978; INPA • 1 spec.; same data as for preceding; 4 Apr. 1978; INPA • 1 spec.;same data as for preceding; 11 Apr. 1978; CEMT • 4 specs; same data as for preceding; INPA • 1 spec.; same data as for preceding; 2 May 1978; INPA • 1 spec.; same data as for preceding; 30 May 1978; CEMT • 2 specs; same data as for preceding; INPA • 1 spec.; same data as for preceding; 4 Jul. 1978; INPA • 1 spec.; same data as for preceding; 13 Dec. 1977; INPA • 1 spec.; same data as for preceding; 24 Jan. 1978; INPA • 1 spec.; ResEx Lago Capanã Grande, 5°54′33″ S, 62°23′56″ W; elev. 750 m; 30 Oct.–1 Nov. 2019; R.A. Azevedo leg.; human feces; CEMT • 3 specs; same data as for preceding; elev. 850 m; CEMT • 7 specs; same data as for preceding; elev. 1050 m; CEMT •1 spec.;same data as for preceding; elev. 950 m; M.A.P.A. Silveira leg.; CEMT • 6 specs; same data as for preceding; 5°58′52″ S, 62°27′38″ W; elev. 800 m; CEMT • 3 specs; same data as for preceding; 5°54′33″ S, 62°23′56″ W; elev. 850 m; CEMT • 8 specs; same data as for preceding; elev. 1050 m; CEMT • 1 spec.; same data as for preceding; elev. 600 m; 31 Oct. 2 Nov. 2019; human feces; R.A. Azevedo leg.; CEMT • 2 specs; same data as for preceding; 6°01′05″ S, 62°29′24″ W; elev. 700 m; CEMT • 1 spec.; same data as for preceding; elev. 1000 m; CEMT • 2 specs; same data as for preceding; elev. 1200 m; CEMT • 1 spec.; same data as for preceding; elev. 1300 m; CEMT • 8 specs; same data as for preceding; 5°42′33″ S, 62°23′56″ W; elev. 1050 m CEMT • 1 spec.; same data as for preceding; 5°58′52″ S, 62°27′38″ W; elev. 1200 m; CEMT • 2 specs; same data as for preceding; 5°58′52″ S, 62°29′24″ W; elev. 1400 m; 2 CEMT • 4 specs; same data as for preceding; 6°1′5″ S, 62°29′24″ W; CEMT • 1 spec.; same data as for preceding; 5°58′52″ S, 62°27′38″ W; elev. 1200 m; M.A.P.A. Silveira leg.; CEMT. – **Distrito Federal** • 1 spec.; Gama-Cabeça-de-Veado; 15°56′49.60″ S, 47°56′58.50″ W; 15 Dec. 2018; W.L. Cunha; Cerrado s. str.; feces; CEMT. – **Mato Grosso** • 4 specs; Alta Floresta, P.E. Cristalino; 9°32′45″ S, 55°54′56″ W; elev. 248 m; 15–17 Nov. 2019; R.A. Azevedo leg.; human feces; CEMT • 3 specs; same data as for preceding; 9°40′59″ S, 55°54′57″ W; elev. 260 m; CEMT • 19 specs; same data as for preceding; 9°35′50″ S, 55°53′40″ W; elev. 287 m; CEMT • 1 spec.; same data as for preceding; 7°24′60″ S, 73°37′56″ W; elev. 254 m; 6–8 Dec. 2019; CEMT • 1 spec.; Brasnorte, Faz Hermínia; 11°56′59″ S, 58°14′47″ W; elev. 304 m; 29 Nov.–1 Dec. 2017; U.F. Santos leg.; borda; human dung; CEMT • 3 specs; same data as for preceding; 11°57′2″ S, 58°14′49″ W; elev. 309 m; CEMT • 1 ♂, 2 specs; same data as for preceding; elev. 311 m; 29–30 Nov. 2017; A.F Machado leg.; forest; pitfall; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 9°50′23″ S, 58°15′13″ W; 28–30 Oct. 2021; J. Mariano *et al.* leg.; matinha; human feces; CEMT • 4 specs; same data as for preceding; 9°50′27″ S, 58°15′8″ W; CEMT • 2 specs; same data as for preceding; 9°51′39″ S, 58°13′13″ W; 2–4 Nov. 2021; J. Mariano *et al.* leg.; human feces; CEMT • 1 spec.; same data as for preceding; 9°50′47″ S, 58°14′9″ W; Talhão 46b; CEMT • 1 spec.; same data as for preceding; 9°51′45″ S, 58°15′50″ W; 5–7 Nov. 2021; Talhão 14b; CEMT • 1 spec.; Novo Mundo, P.E. Cristalino; 9°28′23″ S, 55°49′19″ W; Nov. 2012; V. Magalhães leg.; pitfall; CEMT • 1 spec.; São José do Rio Claro; 13°53′10″ S, 56°40′42″ W; 29 Jun. 2018; L.G Nunes and E. Carvalho leg.; human feces; CEMT • 1 spec.; same data as for preceding; 30 Jun. 2018; CEMT. – **Minas Gerais** • 1 spec.; Brumadinho; 20°08′7″ S, 44°08′7″ W; May 2021; P.G. da Silva leg.; human dung; CEMT • 1 ♂, 5 specs; same data as for preceding; 20°8′9″ S, 44°7′52″ W; Nov. 2021; P.G. da Silva leg.; human dung; CEMT • 1 ♀, 1 spec.; same data as for preceding; 20°8′7″ S, 44°8′45″ W; CEMT • 1 spec.; same data as for preceding; 20°9′24″ S, 44°9′10″ W; CEMT. – **Pará** • 1 spec.; Belém, IPEAN; May 1985; N. Degallier leg.; CEMT • 1 spec.; Belterra; 3°15′25″ S, 54°53′18″ W; elev. 113 m; 15 Jul. 2016; F. França leg.; sec forest; human and pig dung; CEMT • 1 spec.; same data as for preceding; FLONA-Tapajós; 3°01′43″ S, 55°00′40″ W; 21 Mar. 2019; primary forest; CEMT • 2 specs; same data as for preceding; 3°19′12″ S, 54°57′37″ W; 22 Mar. 2019;

CEMT • 1 spec.; Bragança; 1°10′46″ S, 46°40′54″ W; 5 Mar. 2019; CEMT • 2 specs; Santarém, Flona-Tapajós; 3°19′12″ S, 54°57′37″ W; 22 Mar. 2019; F. França leg.; human and pig dung; CEMT • 1 spec.; Almeirim, Jari; 2 Feb. 2011; F.M. França leg.; pitfall feces; CEMT • 2 specs; same data as for preceding; 5 Feb. 2011; CEMT • 1 ♀, 12 specs; same data as for preceding; 16 Feb. 2011; CEMT • 3 specs; same data as for preceding; 19 Feb. 2011; CEMT • 4 specs; same data as for preceding; 23 Feb. 2011; CEMT • 10 specs; same data as for preceding; 26 Feb. 2011; CEMT • 1 spec.; same data as for preceding; 2 Mar. 2011; CEMT • 2 specs; same data as for preceding; 12 Mar. 2011; CEMT • 1 spec.; same data as for preceding; 16 Mar. 2011; CEMT • 1 spec.; same data as for preceding; 16 Mar. 2012; CEMT • 1 spec.; same data as for preceding; 19 Mar. 2011; CEMT • 2 specs; Marabá; 5°47′04″ S, 48°54′55″ W; 21 Feb. 2019; F. França leg.; logging forest; human and pig dung; CEMT • 1 spec.; same data as for preceding; 5°38′01″ S, 49°12′39″ W; 22 Feb. 2019; secondary forest; CEMT • 1 spec.; same data as for preceding; 5°39′35″ S, 49°10′47″ W; CEMT. – **Rondônia** • 6 specs; Parq Estadual Guajará-Mirim; 10°18′ S, 64°32′ W; 25 Nov. 2016; M.A.P.A. Silveira leg.; human dung; CEMT • 1 spec.; same data as for preceding; 10°09′ S, 64°33′ W; 8 Mar. 2017; CEMT • 1 spec.; same data as for preceding; 23 Sep. 2017; CEMT • 6 specs; Pimenta Bueno; 11°43′05″ S, 61°28′21″ W; elev. 249 m; 9–11 Dec. 2015; D.C. Castro leg.; human dung; CEMT. – **Roraima** • 3 specs; Cantá; Sep. 1996; Vaz-de-Mello and Ribeiro leg.; CEMT • 4 specs; Ilha de Maracá; Sep. 1996; Ribeiro leg.; CEMT.

COLOMBIA – **Amazonas** • 1 spec.; Letícia, BTF; Oct. 2005; L. Escobar leg.; pitfall; CEMT.

FRENCH GUIANA • 2 specs; Cayenne, Montagne des Chevaux (MCV); 4°44′56″ N, 52°26′28″ W; 13 Apr. 2013; SEAG leg.; light (PSA); CEMT • 1 spec.; Mont Proche de Mont (BAR); 4°18′28″ N, 53°17′10″ W; 2 Nov. 2013; SEAG leg.; FIT (V); CEMT • 1 spec.; Nouragues; Apr. 2001; F. Feer leg.; forêt primaire; CEMT • 1 spec.; Sain Eugéne, Barrage de Petit Saut; 4°51′ N, 53°4′ W; elev. 90 m; May 1999; F. Feer leg.; CEMT • 1 spec.; Sain Laurent du Maroni, Belvedère Saül; 3°37′22″ N, 53°12′57″ W; elev. 326 m; 14 Mar. 2011; SEAG leg.; FIT; CEMT • 1 spec.; same data as for preceding; 30 Mar. 2011; FIT-V6; CEMT • 1 spec.; same data as for preceding; 20 May 2011; FIT (V) leg.; CEMT • 1 spec.; same data as for preceding; 27 May 2011; CEMT.

Sexual dimorphism

Males with head and pronotum less densely punctate, protibial apical spine outward and downward bent.

Collecting information

Blackburneus laxepunctatus was found at altitudes ranging from 90 to 1400 metres. Specimens were captured with pitfall traps baited with human or cow dung, with flight intercept or were attracted by light traps in regions of primary and secondary forests.

Blackburneus richteri (Schmidt, 1911)
Figs 2E–G, 34A

Aphodius richteri Schmidt, 1911b: 21.

Aphodius (*Blackburneus*) *richteri* – Schmidt 1913: 138.
Blackburneus richteri – Skelley *et al*. 2007: 2.

Diagnosis

Length 2.5–3.0 mm. Body shagreened and testaceous. Head with moderated punctures, these progressively larger near frons; clypeus emarginate, medially weakly gibbous; frontoclypeal suture present, finely impressed. Pronotum dense fine and coarse punctures. Elytra with interstriae convex, with a singe row of punctures.

Material examined

BOLIVIA • 4 specs; 2 Feb. 1960; R.B. Cumming leg.; CEMT. – **Santa Cruz** • 2 specs; Sta 60 mi. N of Saavedra Exp.; CEMT.

BRAZIL – **Distrito Federal** • 1 spec.; Planaltina, Embrapa Cerrados; 15°35′54″ S, 47°42′51″ W; 18 Nov. 2005; O. Oliveira leg.; agricultural area; light; CEMT • 1 spec.; same data as for preceding; 2 Dec. 2005; CEMT • 3 specs; same data as for preceding; 5 Jan. 2006; CEMT • 1 spec.; same data as for preceding; 15°36′16″ S, 47°44′16″ W; 24 Feb. 2006; native cerrado; CEMT • 1 spec.; same data as for preceding; 15°36′20″ S, 47°42′16″ W; 3 Nov. 2006; CEMT • 2 specs; same data as for preceding; 15°35′54″ S, 47°42′51″ W; 24 Mar. 2006; agricultural area; CEMT. – **Maranhão** • 3 specs; Carolina, Fazenda Cincorá; 17–22 Oct. 2009; F. Limeira-de-Oliveira *et al.* leg.; light; CEMT. – **Mato Grosso do Sul** • 1 ♂; Selvíra, Santa Ofélia farm; 1 May 2004; C.A.H. Flechtmann leg.; *Brachiaria decumbens* pasture; bovine dropping; CEMT • 3 ♂♂; same data as for preceding; 12 Jun. 2004; CEMT • 1 ♀; same data as for preceding; 26 Feb. 2005; CEMT • 1 ♀; same data as for preceding; UNESP farm; 16 Jan. 2005; *Brachiaria brizantha* pasture; CEMT • 1 ♂; same data as for preceding; 20°22′41″ S, 51°25′10″ W; 29 Oct. 2005; F. Oikawa leg.; *Brachiaria decumbens* pasture; black light; CEMT • 1 ♀; same data as for preceding; 12 Nov. 2009; CEMT • 1 ♀; same data as for preceding; 5 May 2010; CEMT • 1 ♀; same data as for preceding; 20°53′41″ S, 51°24′39″ W; 6 Feb. 2007; F.W. Mesquita leg.; CEMT • 1 ♂; same data as for preceding; 20°22′53″ S, 51°24′39″ W; 7 Nov. 2006; CEMT • 1 ♀; same data as for preceding; 30 Jan. 2007; CEMT.

Sexual dimorphism

Male protibial apical spine downwardly and outwardly bent; males with distal teeth of protibia with proximal margin dilated and angled.

Collecting information

Specimens can be found in pastures of *Urochloa brizantha* and *Urochloa decumbens* and in areas of native Cerrado. Specimens are attracted to cattle dung, light and can be captured by flight intercept. The species can be found at altitudes up to 1600 m (Dellacasa *et al.* 2011; Mesquita *et al.* 2017).

Blackburneus surinamensis Dellacasa, Dellacasa & Gordon, 2011
Figs 2D, 34A

Blackburneus surinamensis Dellacasa, Dellacasa & Gordon, 2011: 31.

Diagnosis

Length 3.5–4.0 mm. Body wide, light brown. Head with clypeus sinuate with punctures of two sizes, fine and coarse; coarse punctures closer near to posterior half of clypeus, near the frontoclypeal suture; frontoclypeal suture fine, almost imperceptible; frons coarsely punctate. Pronotum with punctures of two sizes fine and coarse; coarse punctures distant on disc, closer laterally. Elytra with interstriae flat; minutely punctured. First tarsomere of metatarsus longer than superior apical spur.

Material examined

BRAZIL – **Amazonas** • 3 specs; PDBFF [Biological Dynamics of Forest Fragments Project], Km 41; 02°27′ S, 59°46′ W; 12 Feb. 2005; M. Radtke leg.; dung pitfall; INPA • 1 spec.; same data as for preceding, dimona; 2°20′ S, 60°07′ W; 17 Feb. 2005; CEMT • 1 spec.; Reserva Ducke, 26 km NE of Manaus; 14 Mar. 1978; B.C. Ratcliffe leg.; CEMT • 1 spec.; same data as for preceding; 30 May 1978; CEMT • 1 spec.; same data as for preceding; 20 Jun. 1978; CEMT • 2 specs; same data as for preceding; 22 Nov. 1977; CEMT • 1 spec.; same data as for preceding; BR010, Km 26; 31 Jan. 1978;

B.C. Ratcliffe leg.; CEMT • 2 specs; Manaus, ZF-03, Km 41; 1996–1997; Andresen and Ellen leg.; in *Alouatta seniculus* feces; CEMT • 5 specs; same data as for preceding; INPA.

Sexual dimorphism

Males with head and pronotum less densely punctured than those of female. Males with metaventrite plate longitudinally grooved medially.

Blackburneus thomasi Dellacasa, Dellacasa & Gordon, 2011
Figs 3A, 35A

Blackburneus thomasi Dellacasa, Dellacasa & Gordon, 2011: 33.

Diagnosis

Length 2.0–2.5 mm. Body oval shagreened, testaceous. Head with clypeus with punctures of similar sizes and equidistant; clypeus discretely emarginate, trapezoidal, weakly gibbous; frontoclypeal suture present although weak. Pronotum with punctures of two sizes; fine punctures spread throughout pronotal surface, equidistant on disc, closer near lateral margins; coarse punctures absent on pronotal disc, closer near lateral margins. Elytra shagreened; interstriae convex, with two rows of fine punctures.

Material examined

BRAZIL – **Distrito Federal** • 1 spec.; Planaltina, Embrapa Cerrados; 15°36′16″ S, 47°44′16″ W; 3 Nov. 2006; Oliveira leg.; light; CEMT. – **Mato Grosso do Sul** • 1 ♂; Selvíria, Santa Ofélia farm; 1 May 2004; C.A.H. Flechtmann leg.; *Brachiaria brizantha* pasture; bovine dropping; CEMT • 1 ♀; same data as for preceding; 22 May 2004; CEMT • 1 ♀; same data as for preceding; 12 Feb. 2005; CEMT • 1 ♂; same data as for preceding; UNESP farm; 12 Nov. 2009; *Urochloa decubens*; black light; CEMT • 1 ♂; same data as for preceding; 20°22′41″ S, 51°25′10″ W; 29 Oct. 2005; F.W. Mesquita leg.; *Brachiaria decumbens* pasture; black light; CEMT.

Sexual dimorphism

Males with head and pronotum less densely and less strongly punctured than those of females.

Collecting information

Specimens were collected with black light traps and in cattle dung in pastures of *Urochloa brizantha* and *Urochloa decumbens* (Mesquita *et al.* 2017).

Genus ***Gonaphodioides*** Dellacasa, Dellacasa & Gordon, 2012

Diagnosis

Length 3.5–4.5 mm. Body oblong, convex, glabrous, glossy, dark testaceous or light reddish testaceous. Head strongly, densely punctate; clypeus emarginate, microreticulate, lateral angles obtusely rounded; frontoclypeal suture developed, evident. Pronotum wide, everywhere punctate, punctures closer near lateral margins; lateral margins and posterior angles with marginal line; posterior angles sinuate. Elytra without humeral denticle; interstriae glossy, lateral margins microreticulate, strongly microreticulate near posterior margins, dull. Protibia dorsally punctate. Metatibia with weakly developed set of transverse carinae.

Remarks

Gonaphodioides is a genus comprised of nine species found in Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Mexico, Panama, Peru and Venezuela (Dellacasa *et al.* 2012). For more information about the diversity of this genus and keys for all species see Dellacasa *et al* (2012).

Key to species of *Gonaphodioides* from Brazil (Portuguese version in Supp. file 1)

1. Elytral interstriae on disc completely flat; length 3.5–4.0 mm .... ***G. sincerus*** (Petrovitz, 1973) (Fig. 4A)
– Elytral interstriae on disc weakly, but clearly convex; length 4.0–4.5 mm .... ***G. chapini*** (Hinton, 1934) (Fig. 4B–C)

Gonaphodioides chapini (Hinton, 1934)
Figs 4A, C, 35B

Aphodius chapini Hinton, 1934b: 189.
Aphodius ataenioides Hinton, 1938: 123.
Aphodius (*Blackburneus*) *castanescens* Petrovitz, 1973: 145.

Aphodius (*Blackburneus*) *ataenioides* – Dellacasa 1987: 229.
Aphodius (*Blackburneus*) *chapini* – Dellacasa 1987: 351.
Gonaphodiellus (s. lat.) *chapini* – Skelley *et al.* 2007: 4.
Gonaphodioides chapini – Dellacasa *et al*. 2012: 17.

Diagnosis

Length 4.0–4.5 mm. Body dark testaceous. Pronotum with punctures moderate, somewhat equally distant; punctures laterally closer. Elytral interstriae convex. Superior apical spur of metatibiae 1/4 shorter than first tarsomere of metatarsus.

Material examined

BRAZIL – **Acre** • 1 spec.; Assis Brasil; 10°35′44″ S, 69°37′12″ W; 23 Sep. 2016; Ortiz and Borges leg.; CDC light trap; CEMT • 1 spec.; same data as for preceding; 10°35′44″ S, 69°37′11″ W; 18 Nov. 2016; wild environment; CEMT.

Sexual dimorphism

Female with apical spur of protibia slender, elongate and outward curved.

Collecting information

This species can be found at altitudes up to 1300 metres. Specimens were collected with CDC light traps, flight intercept traps and are attracted to pig, human and horse dung (Dellacasa *et al.* 2012).

Gonaphodioides sincerus (Petrovitz, 1973)
Figs 4B, 35B

Aphodius (*Gonaphodiellus*) *sincerus* Petrovitz, 1973: 142.

Gonaphodiellus (s. lat.) *sincerus* – Skelley *et al.* 2007: 4 (checklist).
Gonaphodioides sincerus – Dellacasa *et al*. 2012: 17.

Diagnosis

Length 3.5–4.0 mm. Body light reddish testaceous. Pronotum scarcely and finely punctate on disc, lateral punctures closer and larger. Elytra with interstriae on disc flat. Superior apical spur of metatibia 1/3 shorter than first tarsomere of metatarsus.

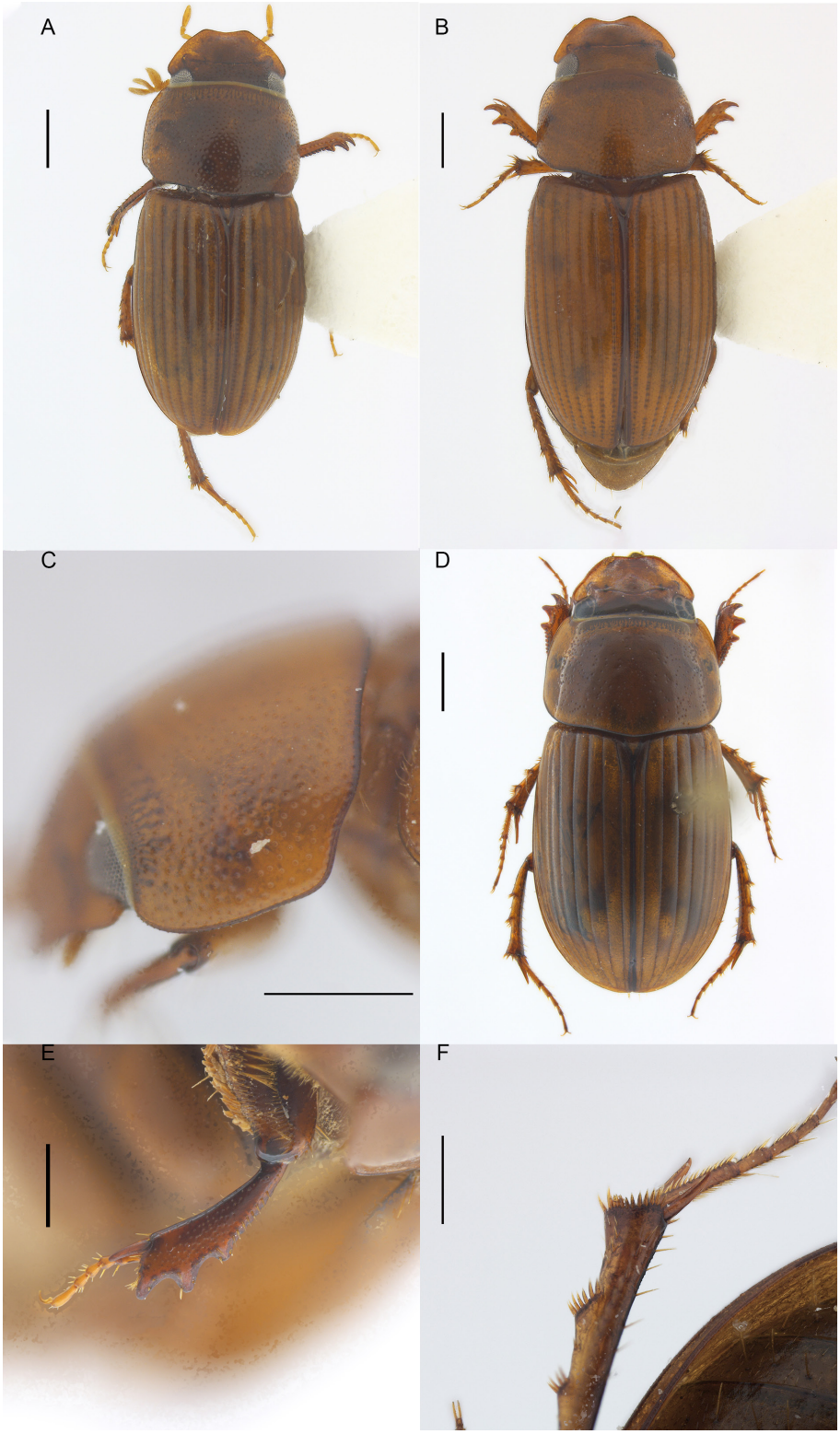

Fig. 4. A. *Gonaphodioides chapini* (Hinton, 1934) **(**CEMT), Assis Brasil, Acre, Brazil, dorsal habitus. **B**. *G. sincerus* (Petrovitz, 1973) (CEMT), SW Ariquemes, Rondônia, Brazil, dorsal habitus. **C**. *G. chapini* (CEMT), Assis Brasil, Acre, Brazil, pronotum, lateral view. **D–F**. *Trichaphodiellus brasiliensis* (Castelnau, 1840), ♂ (CEMT), Rio Branco, Acre, Brazil. **D**. Dorsal habitus. **E**. Protibia, dorsal view. **F**. Metatibia. Scale bars: A–C, E = 0.5 mm; D, F = 1 mm.

Material examined

BRAZIL – **Amazonas** • 1 spec.; 54 km of Leste de Manaus; 26 Apr. 1979; Arias *et al.* leg.; CEMT. – **Distrito Federal** • 1 spec.; Brasília, Fazenda Água Limpa; 15°56′40″ S, 47°55′37″ W; 10 Dec. 2017; Y. Ferreira leg.; pasture; pig dung; CEMT • 2 specs; Planaltina, Embrapa Cerrados; 15°36′20″ S, 47°42′16″ W; 3 Nov. 2006; C. Oliveira leg.; native cerrado; light; CEMT. – **Mato Grosso** • 1 spec.; Chapada dos Guimarães, R. Mutuca; 15°18′21″ S, 55°58′6″ W; 10–20 Nov. 2016; A. Frolov leg.; FIT; CEMT • 2 specs; Porto Estrela, E.E. Serra das Araras, Trilha Boca do José Cerrado; Nov. 2017; T.F. Conceição leg.; pitfall; CEMT. – **Rio de Janeiro** • 1 spec.; Nova Friburgo; Nov. 2002; E.J. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Rio Bonito de Lumiar; 22°24′32″ S, 42°20′10″ W; elev. 658 m; 6 Mar. 2009; J. Nissimian *et al.* leg.; light; CEMT. – **Rondônia** • 4 specs; 62 km SW of Ariquemes, Fazenda Rancho Grande; 3–15 Dec. 1996; J.E. Eger leg.; black light; CEMT. – **São Paulo** • 2 specs; São Paulo, Descalvado, Fazenda Itaúna; 3 Nov. 2005; N.W. Perioto leg.; forest Cerrado; pitfall; CEMT.

Sexual dimorphism

Female with apical spur of protibia slender, curved outward.

Collecting information

Specimens were collected with black light traps or with flight intercept traps and appear to be attracted to pig dung.

Genus ***Labarrus*** Mulsant & Rey, 1870

Diagnosis

Length 3.2–5.1 mm. Body oblong, subparallel-sided, glossy and dorsally glabrous, yellow with dark spots on the head, disk of pronotum and elytra. Head with frontoclypeal suture tuberculate. Pronotum without posterior marginal line. Dorsal surface of protibia not punctate**.**

Remarks

Labarrus is a subcosmopolitan genus comprised of 19 species, three of which are found in the New World (Dellacasa *et al.* 2001a, 2002; Schoolmeesters 2023). Woodruff (1973) suggested that *Labarrus* was introduced to the American continent by ships transporting cattle and slaves from the Old World. Recently, Bordat (2016) showed that the New World species of *Labarrus* are widely distributed on the African continent along with other species not present in the Americas. These facts lead us to the same conclusion. But further studies need to be conducted to verify this assumption. For another key of the species present in the New World see Dellacasa *et al.* (2002). A key for Afrotropical species can be found in Bordat (2016).

Key the to species of *Labarrus* from Brazil (Portuguese version in Supp. file 1)

1. Mesotibiae with inferior apical spur obliquely truncate apically (Fig. 6F). Meso- and metatibiae dark, contrasting with femur. Specimens from Fernando de Noronha .... ***L. lividus*** (Olivier, 1789) (Fig. 6E–G)
– Mesotibiae with small apical spur conically acuminate from base to apex. Meso- and metatibiae pale, not contrasting with femur. Specimens from other localities 2

2. Head coarsely punctured; frontoclypeal suture excavating frontal tubercle (Fig. 6C) .... ***L. parnaguaensis*** (Petrovitz, 1961) (Fig. 6A, C)
– Head with fine to moderate punctures; frontoclypeal suture present, not excavating frontal tubercle (Fig. 6D) .....***L. pseudolividus*** (Balthasar, 1941) (Fig. 6B, D)

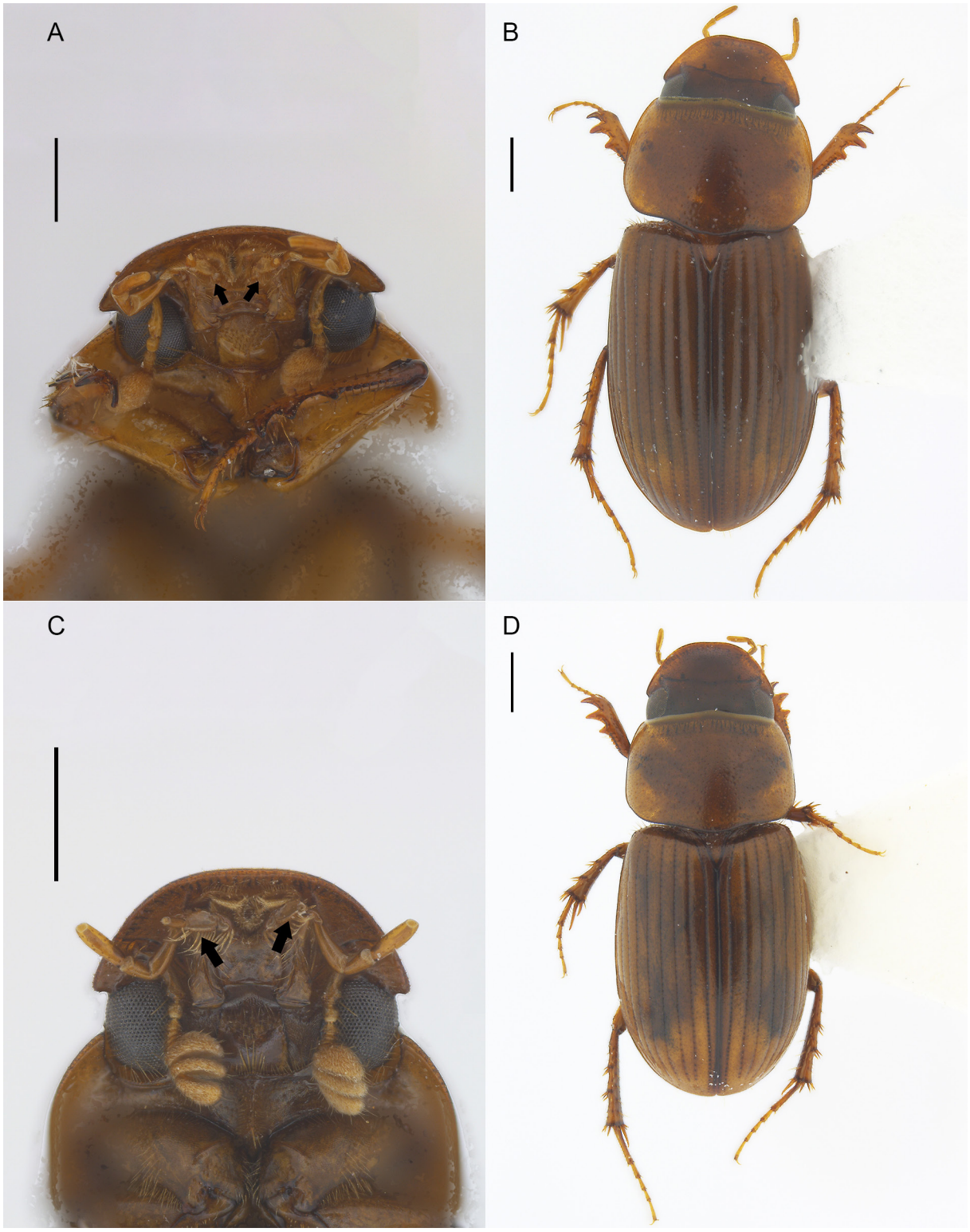

Fig. 5. A–B. *Neotrichaphodioides volxemi* (Harold, 1876), ♂ (CEMT), Corinto, Minas Gerais, Brazil. **A**. Head, fronto-dorsal view (arrows indicate male enlarged second palpomere). **B**. Dorsal habitus. **C–D**. *N. caracanus* (Balthasar, 1970), ♂ (CEMT), Planaltina, Distrito Federal, Brazil. **C**. Head, fronto-dorsal view (arrows indicate male enlarged second palpomere). **D**. Dorsal habitus. Scale bars: A–D = 0.5 mm.

Labarrus lividus (Olivier, 1789)
Figs 6E–G, 36A

[See Dellacasa *et al*. 2016 for full synonymy.]

Diagnosis

Length 3.0–4.5 mm. Head with clypeus clearly emarginate, anteriorly rugosely punctured; frontoclypeal suture tuberculate medially; suture not visible at tubercle. Pronotum strongly convex, with punctures of two sizes; larger punctures scarce. Inferior apical spur of mesotibia obliquely truncate apically. Meso- and metatibiae dark, contrasting with femur.

Material examined

BRAZIL – **Pernambuco** • 2 ♂♂; Fernando de Noronha, Sancho; 20–28 Feb. 2020; Grossi and Rafael leg.; light; CEMT.

Sexual dimorphism

Males with frontoclypeal tubercle more developed, acuminate. Females with frontoclypeal tubercle weakly developed.

Collecting information

Specimens were collected at light.

Remarks

After the description of *Labarrus pseudolividus*, the records of *L. lividus* on the American continent have been considered dubious since many of the specimens previously determined as the former were in fact misidentified *L. pseudolividus* (Dellacasa 2002; Gordon & Skelley 2007). Today, only a few reliable records of *L. lividus* are known from Central and North America (Dellacasa *et al*. 2002; Gordon & Skelley 2007; Bordat 2016). Here, to our knowledge, we present the first reliable record of *Labarrus lividus* in Brazil.

Labarrus parnaguaensis (Petrovitz, 1961)
Figs 6A–C, 36A

Aphodius (*Nialus*) *parnaguaensis* Petrovitz, 1961b: 108.

Aphodius (*Labarrus*) *parnaguaensis* – Dellacasa 1987: 242.
Labarrus parnaguaensis – Bordat 2016: 29.

Diagnosis

Length 3.2–3.9 mm. Clypeus clearly emarginate; with coarse punctures extending to frons; frontoclypeal suture medially tuberculate; suture distinct, excavating posterior half of median tubercle. Tarsomeres of metatarsus shortened, sub-triangularly widened. Meso- and metatibiae pale, not contrasting with femur.

Material examined

ARGENTINA – **Desaguadero** • 13 specs; 5 Feb. 2017; G. Arriágada leg.; light; CEMT. – **Córdoba** • 1 spec.; 10 km NW of Alpa Corral; 8–9 Feb. 2009; F.C. Ocampo leg.; CEMT. – **Corrientes** • 6 specs; Barrio Víctor Colas; 27°28′50″ S, 58°47′18″ W; elev. 64 m; 21 Oct. 2012; M.I. Polesel *et al.* leg.; light; CEMT. – **Entre Ríos** • 2 specs; Liebig, Pueblo; Feb. 1994; A. Ugarte-Penã leg.; CEMT. – **Mendoza** • 1 spec.; Lavalle, Res. Bio. Telteca; 9 Dec. 2002; Arriágada and Diéguez leg.; light; CEMT. – **San Luis** •

1 spec.; Belgrano; 14–18 Feb. 2018; J. Jensen leg.; light; CEMT • 10 specs; same data as for preceding; Fundo el Molle; 33°02′23″ S, 66°30′48″ W; elev. 622 m; 7 Feb. 2017; G. Arriágada leg.; CEMT.

BOLIVIA – **Santa Cruz** • 1 spec.; Chiquitos, 1.6 km E of Santiago de Chiquitos; 18°12′04″ S, 59°21′00″ W; elev. 622 m; Nov. 2008; W.D. Edmonds and T. Vidaurre leg.; light; CEMT.

BRAZIL – **Amazonas** • 1 spec.; Itacoatiara, Fazenda Aruana, Am010, Km 215; 16–19 Dec. 1990; C.S. Morra *et al.* leg.; luz mista de mercúrio [mistmixed mercury light]; INPA. – **Bahia** • 4 specs; Camacan, Rio Panelão; 15°24′28″ S, 39°32′4″ W; elev. 176 m; 12 Aug. 2016; A.P.M. Santos *et al.* leg.; light; CEMT. – **Ceará** • 1 spec.; Ubajara, P.N. Ubajara, Trilha Araticum, Rio Das Minas; elev. 480 m; 14 Feb. 2013; D.M. Takiya and A.P.M. Santos leg.; Pennsylvania trap; CEMT • 13 specs; same data as for preceding; Portão Neblina; 3°50′18″ S, 40°53′54″ W; elev. 849 m; 14 Feb. 2013; light; CEMT • 1 spec.; same data as for preceding; Cachoeira Cafundó; 3°50′12″ S, 40°54′35″ W; elev. 783 m; 15 Feb. 2013; Pennsylvania trap; CEMT • 1 spec.; same data as for preceding; bridge across Rio Miranda; 3°50′07″ S, 40°54′48″ W; elev. 792 m; CEMT • 1 spec.; same data as for preceding; Trilha Samambaia; 3°50′20″ S, 40°53′55″ W; 850 m; 17 Feb. 2013; D.M. Takiya leg.; CEMT. – **Distrito Federal** • 2 specs; Brasília; elev. 1000 m; Feb. 2001; N. Degallier leg.; light; CEMT • 1 spec.; same data as for preceding; Mar. 2001; CEMT • 1 spec.; same data as for preceding; elev. 1100 m; Oct. 2000; CEMT • 2 specs; same data as for preceding; elev. 1100 m; Jan. 2001; CEMT • 2 specs; same data as for preceding; Feb. 2001; Felipe and Rodrigues leg.; light; CEMT • 1 spec.; same data as for preceding; Fazenda Água Limpa (University of Brasilia); Nov. 2010; C. Suinaga leg.; CEMT • 1 spec.; same data as for preceding; 15°56′40″ S, 47°55′38″ W; 10 Dec. 2017; Y. Ferreira leg.; pig dung; CEMT • 1 spec.; Pq Nacional de Brasília; 15°42′08″ S, 47°56′03″ W; 15 Dec. 2018; W.L. Cunha leg.; cerrado s. str.; CEMT • 1 spec.; Planaltina, Embrapa Cerrados; 15°35′54″ S, 47°42′51″ W; 18 Nov. 2005; C. Oliveira leg.; área agrícola [agricultural area]; light; CEMT • 1 spec.; same data as for preceding; 2 Dec. 2005; CEMT • 2 specs; same data as for preceding; 17 Dec. 2005; CEMT • 1 spec.; same data as for preceding; 19 Jan. 2006; CEMT • 1 spec.; same data as for preceding; 24 Mar. 2006; CEMT • 6 specs; same data as for preceding; 15°35′52″ S, 47°43′10″ W; 4 Dec. 2017; Y. Ferreira leg.; soy plantation; human feces; CEMT. – **Goiás** • 3 specs; Anápolis; 16°16′03″ S, 48°50′37″ W; 2 Jan. 2016; E.C.C. Santana leg.; manually; CEMT • 1 spec.; Rio Verde; Oct. 1995; J. Carlos leg.; CEMT. – **Maranhão** • 11 specs; Carolina, Fazenda Cincorá; 17–22 Oct. 2009; F. Lima-de-Oliveira *et al.* leg.; light; CEMT. – **Mato Grosso** • 1 spec.; Água Boa, Rancho Araguaia; 13°56′40″ S, 52°6′10″ W; 24 Dec. 2017; Mota and Schutz leg.; CEMT • 5 specs; Alta Floresta, CEPLAC; 4 Sep. 2009; V. Gonçalves leg.; *Tapirus* feces; CEMT • 1 spec.; Brasnorte, Fazenda Hermínia; 11°57′3″ S, 58°14′43″ W; elev. 300 m; 29 Nov.–1 Dec. 2017; U.F. Santos leg.; soy plantation; human feces; CEMT • 2 specs; Chapada dos Guimarães; 11 Dec. 2000; A.F. Ramos leg.; light; CEMT • 1 spec.; same data as for preceding; 25 Mar. 2001; CEMT • 1 spec.; same data as for preceding; Santuário dos Elefantes; 2 Nov. 2019; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; 15°18′54″ S, 55°24′03″ W; 4 Nov. 2019; H. Sehn *et al.* leg.; elephant feces; CEMT • 5 specs; same data as for preceding; 15°18′51″ S, 55°24′10″ W; CEMT • 5 specs; same data as for preceding; 5°18′55″ S, 55°24′07″ W; horse feces; CEMT • 1 spec.; same data as for preceding; *Tapirus* feces; CEMT • 2 specs; same data as for preceding; cow feces; CEMT • 1 spec.; same data as for preceding; 15°18′55″ S, 55°24′14″ W; CEMT • 1 spec.; same data as for preceding; 15°18′50″ S, 55°24′14″ W; CEMT • 2 specs; same data as for preceding; 15°18′55″ S, 55°24′05″ W; 22 Jan. 2020; CEMT • 1 spec.; same data as for preceding; 15°18′55″ S, 55°24′10″ W; *Tapirus* feces; CEMT • 1 spec.; same data as for preceding; elephant feces; CEMT • 1 spec.; same data as for preceding; 5°18′55″ S, 55°24′14″ W; human feces; CEMT • 2 specs; same data as for preceding; 23 Jan. 2020; CEMT • 1 spec.; Cuiabá, Campus Universidade Federal de Mato Grosso; Oct. 2008; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Cotriguaçu, Assentamento INCRA; 1 Nov. 2017; R. Stofel leg.; CEMT • 1 spec.; same data as for preceding; Fazenda São Nicolau; 14 Feb. 2007; O. Peres-Filho leg.; light; CEMT • 1 spec.; same data as for preceding; 1 Oct. 2007; CEMT • 1 spec.; same data as for preceding; 16 Oct. 2007; CEMT • 3 specs; same data as for

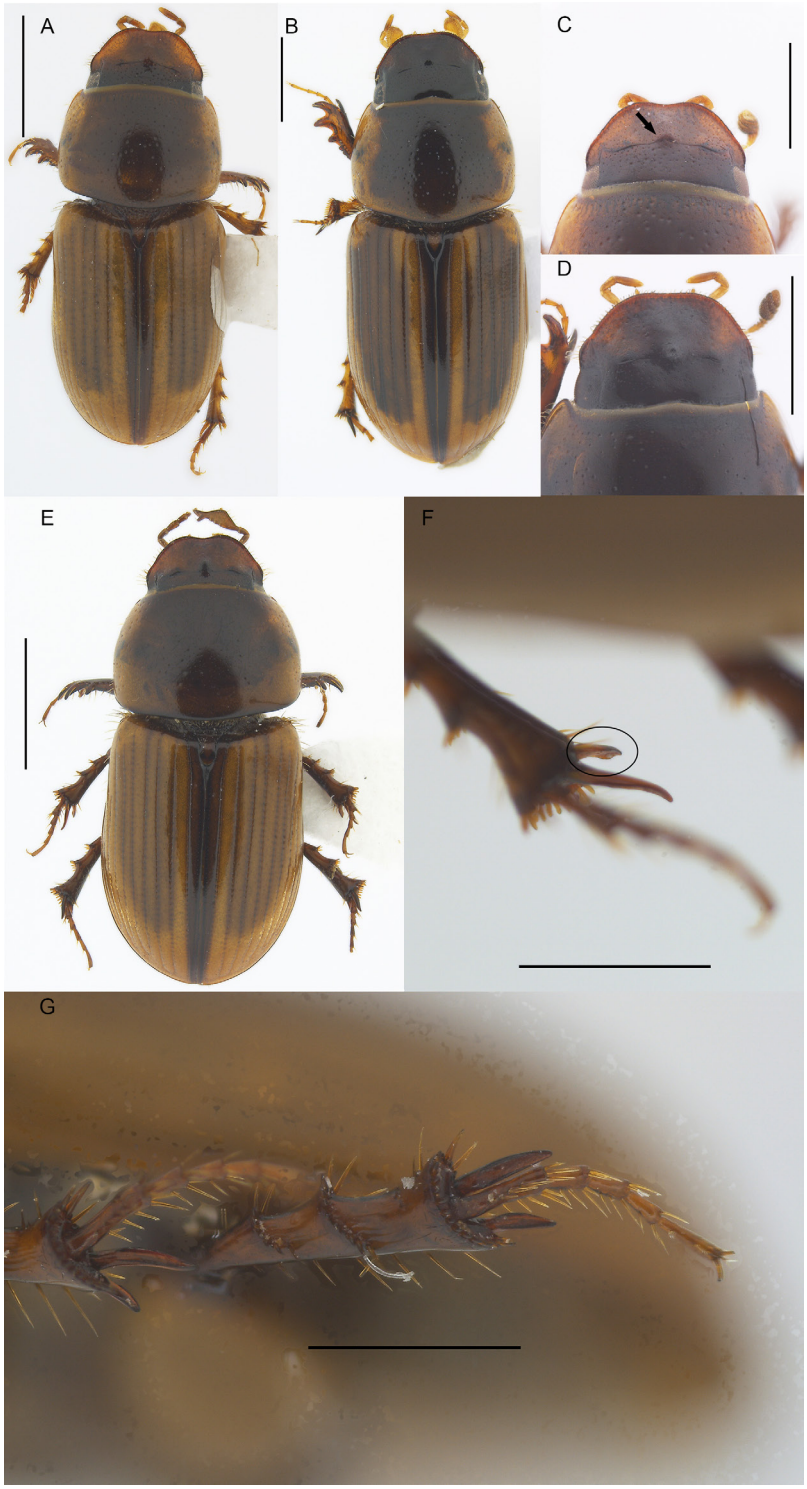

Fig. 6. A. *Labarrus parnaguaensis* (Petrovitz, 1961) (CEMT), Brasilia, Distrito Federal, Brazil, dorsal habitus. **B**. *L. pseudolividus* (Balthasar, 1941) (CEMT), Camanan, Bahia, Brazil, dorsal habitus. **C**. *L. parnaguaensis* (CEMT), Brasilia, Distrito Federal, Brazil, head, dorsal view (arrow indicates frontoclypeal suture). **D**. *L. pseudolividus* (CEMT), Brasilia, Distrito Federal, Brazil, head, dorsal view. **E–G**. *L. lividus* (Olivier, 1789), ♂ (CEMT), Fernando de Noronha, Pernambuco, Brazil. **E**. Dorsal habitus. **F**. Left mesotibia, dorsal view (circle indicates obliquely truncate apical spur). **G**. Left metatibia, lateral view. Scale bars: A–B, D–E = 1 mm; C, F–G = 0.5 mm.

preceding; 31 Oct. 2007; CEMT • 1 spec.; same data as for preceding; Nov. 2007; CEMT • 1 spec.; same data as for preceding; 31 Nov. 2007; CEMT • 1 spec.; same data as for preceding; 14 Dec. 2007; CEMT • 4 specs; same data as for preceding; 15 Dec. 2007; CEMT • 7 specs; same data as for preceding; 16 Jan. 2008; CEMT • 3 specs; same data as for preceding; 9°50′19″ S, 58°15′03″ W; 25 Oct. 2014; A. Asenjo leg.; CEMT • 1 spec.; same data as for preceding 9°51′20″ S, 58°14′55″ W; Nov. 2014; R.V. Nunes and A. Asenjo leg.; CEMT • 1 spec.; same data as for preceding; Fazenda São Nicolau; 23 Oct. 2014; W. Chamorro leg.; light; CEMT • 2 specs; same data as for preceding; Oct. 2014; S. Stofel leg.; CEMT • 3 specs; same data as for preceding; 9°51′52″ S, 58°13′45″ W; 2 Oct. 2017; Vaz-de-Mello *et al.* leg.; CEMT • 6 specs; same data as for preceding; 9°51′52″ S, 58°13′54″ W; airport; light; CEMT • 1 spec.; Coxambu, Parque das Águas; 30 Dec. 1979; Bello leg.; CEMT • 1 spec.; Cuiabá, Recanto Siriena; 15°35′32″ S, 56°01′38″ W; 4 Nov. 2014; R.V. Nunes and B.F. Becker leg.; light; CEMT • 1 spec.; Chapada dos Guimarães, Salgadeira; 12 Oct. 1990; M. Serrano leg.; CEMT • 3 specs; Diamantino, Reserva Vale da Solidão; 14°22′ S, 56°07′ W; elev. 450 m; 26 Oct. 2013; E. Furtado leg.; CEMT • 1 spec.; same data as for preceding; 14°22′30″ S, 56°7′30″ W; elev. 500 m; 26–31 Oct. 2013; E. Furtado leg.; CEMT • 1 spec.; Jaciara; 16 Sep. 1993; W. Mathias leg.; light; CEMT • 1 spec.; Nobres; 30 Sep. 2018; R. Segalla and M. Cassiano leg.; CEMT • 2 specs; Nova Ubiratã, ESEC Ronuro; 25 Feb. 2017; L.G.O.A. Nunes *et al.* leg.; CEMT • 3 specs; same data as for preceding; 13°06′43″ S, 54°26′37″ W; 2 Mar. 2017; L.G.O.A. Nunes leg.; light; CEMT • 1 spec.; Poconé; 28 Jan. 1998; forest; light trap; CEMT • 1 spec.; same data as for preceding; 28 Mar. 1998; light; CEMT • 1 spec.; same data as for preceding; 29 Dec. 1997; light; CEMT • 2 specs; same data as for preceding; Pousada das Araras, Pantanal; 3 Dec. 1998; J.L. Moreto and T. Mestre leg.; CEMT • 1 spec.; Santo Antônio do Leverger, São Vicente da Serra; 15°49′42″ S, 55°25′11″ W; 16–18 Feb. 2011; A.S.O. Tissiani leg.; human feces; CEMT • 1 spec.; same data as for preceding; Fazenda Experimental da UFMT [Expermental farm UFMT]; Dec. 2020; F.Z. Vaz-de-Mello and M.E. Maldaner leg.; CEMT • 1 spec.; Sesc-Pantanal; 15 Nov. 2001; light; CEMT • 1 spec.; same data as for preceding; 15 Sep. 2004; light; CEMT • 1 spec.; same data as for preceding; 5 Jul. 2003; CEMT • 1 spec.; Tangará da Serra; 14°38′33″ S, 57°33′18″ W; 19–22 Feb. 2012; A.S. Tissiani leg.; CEMT. – **Mato Grosso do Sul** • 1 spec.; Corumbá, Fazenda São Bento, Prox. Porto Jofre; 14 Apr. 2011; R.V. Nunes leg.; light; CEMT • 1 spec.; Dourados; 27 May 2006; M. Miloca leg.; CEMT • 1 spec.; Guia Lopes da Laguna; 15 Feb. 2007; A. Abot leg.; light; CEMT • 1 spec.; Nova Andradina, Usina Santa Helena; 21°59′32″ S, 53°26′28″ W; elev. 360 m; 18 Oct. 2012; G. Coutinho leg.; CEMT • 2 specs; Inocência, Fazenda Moinho; 19°13′12″ S, 52°9′34″ W; elev. 502 m; 21 Oct. 2018; H.L. Rainho leg.; light; CEMT • 1 spec.; Santo Antônido do Leverger, São Vicente da Cerra; 15°49′42″ S, 55°25′11″ W; 16–18 Feb. 2011; S.O. Tissiani leg.; human feces; CEMT • 2 specs; Selvíria, UNESP farm; 12 Oct. 1993; C.A.H. Flechtmann leg.; pasture area; cattle dropping; CEMT • 1 spec.; same data as for preceding; 6 Jul. 1991; *Brachiaria decumbens* pasture; guzera bovine dropping; CEMT • 1 spec.; same data as for preceding; 10 Oct. 1991; CEMT • 1 spec.; same data as for preceding; 1 Dec. 1991; CEMT • 1 spec.; same data as for preceding; 20 Jan. 1999; black light; CEMT. – **Minas Gerais** • 1 spec.; Conceição do Mato Dentro, 23 Km; elev. 711 m; 16 Sep. 2012; Uceli and Borges leg.; light; CEMT • 2 specs; same data as for preceding; elev. 734 m; 22 Sep. 2012; CEMT • 1 spec.; same data as for preceding; elev. 727 m; 1 Dec. 2012; CEMT • 1 spec.; Cordisburgo, Fazenda Pontinha; Dec. 1993; F.Z. Vaz-de-Mello leg.; CEMT • 2 specs; same data as for preceding; Jan. 1996; Vaz-de-Mello leg.; CEMT • 2 specs; Frei Gaspar, Sítio Recanto Paraíso; 18°02′06″ S, 41°29′10″ W; 28 Dec. 2007; M.R. Santos leg.; light; CEMT • 3 specs; same data as for preceding; elev. 571 m; CEMT • 3 specs; same data as for preceding; 30 Dec. 2007; CEMT • 5 specs; same data as for preceding; 3 Jan. 2008; CEMT • 2 specs; Ipatinga; Sep. 1993; E. Grossi leg.; CEMT • 1 spec.; Lavras; 21°18′52″ S, 44°59′33″ W; 20 Jan. 2008; M.S. Rocha and D.L.H. Takahashi leg.; CEMT • 1 spec.; Lima Duarte, Parque Estadual Ibitipoca; 20 Feb. 1997; C.R.M. Abreu leg.; CEMT • 1 spec.; Uberlândia, Campus UFU; 10 Sep. 2005; J. Mendes leg.; CEMT • 1 spec.; Viçosa; 1994–1995; Louzada *et al.* leg.; pastures; CEMT. – **Paraíba** • 7 specs; São José dos Cordeitos, Fazenda Almas; 4–5 May 2003; Valderez and Rothéa leg.; light trap; CEMT. – **Paraná** • 1 spec.; Entre Rios do Oeste; 26 Dec. 2017; M.E. Maldaner leg.; light; CEMT • 1 spec.; Icaraíma, Estância Felipe; 23°20′32″ S,

53°39′09″ W; 2019; Felipe and Rodrigues leg.; CEMT • 5 specs; same data as for preceding; elev. 300 m; CEMT • 1 spec.; same data as for preceding; 23°23′ S, 53°37′ W; elev. 357 m; CEMT • 1 spec.; Rancho Alegre, Fazenda Congonhas; 22°47′45″ S, 51°00′12″ W; elev. 580 m; 27 Dec. 2012; P.M. Felix leg.; feces; CEMT. – **Piauí** • 1 spec.; Piripiri, PN Sete Cidades; 4°05′57″ S, 41°42′34″ W; elev. 200 m; 7–12 Feb. 2013; Vaz de Mello and Grossi leg.; light; CEMT. – **Rio de Janeiro** • 1 spec.; Cachoeiras de Macacu, Guapiaçu ER; 22°27′05″ S, 42°46′23″ W; elev. 33 m; 25 Oct. 2019; L.R. Martínez leg.; horse feces; CEMT • 3 specs; Miguel Pereira; Jan. 1998; J. Carlos leg.; CEMT • 4 specs; same data as for preceding; Mar. 1998; CEMT • 2 specs; Nova Friburgo; Nov. 2002; E.J. Grossi leg.; CEMT. – **Rio Grande do Sul** • 1 spec.; Aceguá, Fazenda Sentinela; 31°27′30″ S, 54°21′18″ W; 8–14 Nov. 2011; R.M. Moraes leg.; FIT; CEMT • 1 spec.; Eldorado do Sul, EEA-UFRGS; 11 Oct. 1996; Carvalho and Silva leg.; light; CEMT • 2 specs; same data as for preceding; Estação Experimental UFRGS; 30 Mar.–5 Apr. 2012; R.M. Moraes and J. Podkowa leg.; pitfall; CEMT • 1 spec.; Estrada da Ferreira; 30°00′26″ S, 52°57′22″ W; Dec. 2020; V. Costa-Silva leg.; CEMT • 6 specs; Santa Cruz do Sul, Cerro Alegre; 29°48′18″ S, 52°19′55″ W; 17 Mar. 2012; R. Bohn leg.; open area; bovine feces; CEMT • 3 specs; same data as for preceding; 24 Mar. 2012; CEMT • 2 specs; same data as for preceding; 29°48′17″ S, 52°19′59″ W; CEMT • 4 specs; same data as for preceding; forest; CEMT • 2 specs; same data as for preceding; 29°48′11″ S, 52°19′51″ W; CEMT • 3 specs; same data as for preceding; annual crop; CEMT • 4 specs; same data as for preceding; 28°48′05″ S, 52°19′39″ W; grass field; CEMT. – **Santa Catarina** • 1 spec.; Santa Rosa de Lima; 28°04′ S, 49°09′ W; elev. 270 m; 17 Jan. 2018; C.M. Rover leg.; silvi pastoril com núcleos [pastoral silvi with nuclei]; pitfall; CEMT. – **São Paulo** • 2 specs; Anhembi ESALQ/USP; E.N.L. Ferreira leg.; CEMT • 1 spec.; Porto Ferreira; 21°52′11″ S, 47°28′05″ W; 19 Oct. 2019; G. Biffi leg.; CEMT. – **Tocantins** • 4 specs; Palmas, Faz Recanto Valadares; 20 Sep. 2005; M.S. Matos leg.; CEMT.

ECUADOR – **El Oro** • 1 spec.; Piñas; elev. 1250 m; 2 Sep. 1997; C. Carpio leg.; human feces; CEMT.

MEXICO – **Hidalgo** • 2 specs; Cuautepec, San Juan Hueyepan; 20°12′55″ N, 98°16′50″ W; elev. 2265 m; Aug. 2007; F.Z. Vaz-de-Mello leg.; CEMT. – **Oaxaca** • 1 spec.; Pinotepa Nacional, Ixcapa; 7 Apr. 2004; Rámirez-Ponce leg.; selva media subperenifolia [subevergreen forest]; light; CEMT.

PARAGUAY – **Alto Paraguay** • 30 km W of Bahía Negra; Jun. 1988; Aguilar C. leg.; CEMT. – **Alto Paraná** • 1 spec.; 13–15 Nov. 1990; G. Arriágada leg.; CEMT.

PERU – **Piura** • 1 spec.; Sullama; 16 Mar. 2017; D. Saavedra leg.; dry forest; light; CEMT.

URUGUAY – **Rivera** • 1 spec.; Rivera, Bodegas Carrau farm; 30°58′19″ S, 55°26′40″ W; 3–12 Oct. 2011; R.M. Moraes leg.; FIT; CEMT • 1 spec.; same data as for preceding; COFUSA; 30°57′36″ S, 55°29′53″ W; 3–11 Oct. 2011; human and pig dung; CEMT.

VENEZUELA – **Yaracuy** • Bolívar Aroa; 10°00′00″ N, 68°00′00″ W; elev. 463 m; 19 Jul. 2009; M. Asmüssen *et al.* leg.; human feces; CEMT.

Sexual dimorphism

Male with median tubercle more developed than that of female.

Collecting information

Specimens were collected with Pennsylvania trap net, black light and flight intercept traps and are attracted to bovine, human, pig and *Tapirus* feces. Specimens were found in grasslands of *Urochloa brizantha*, soy crops, dry forests and in the wetlands regions of the pantanal. *Labarrus parnaguaensis* was found at altitudes ranging from 150 to 1250 metres (Mesquita *et al.* 2017).

Labarrus pseudolividus (Balthasar, 1941)
Figs 6B, D, 36B

Aphodius cinticulus Hope, 1847: 284.
Aphodius (*Nialus*) *pseudolividus* Balthasar, 1941c: 148.

Aphodius (*Nialus*) *lividus pseudolividus* – Endrödi & Rakovič 1981: 47.
Aphodius (*Labarrus*) *pseudolividus* – Dellacasa 1987: 242.
Labarrus pseudolividus – Dellacasa 2002: 170.

Diagnosis

Length 3.5–5.2 mm. Head with clypeus and frons punctate with small and close punctures; clypeus with weak emargination; frontoclypeal suture medially tuberculate; suture distinct although not excavating posterior half of median tubercle. Tarsomeres of metatarsus sub-cylindrical, elongate. Meso- and metatibiae pale, not contrasting with femur.

Material examined

ARGENTINA – **Córdoba** • 1 spec.; Apla Corral, 10 km NW of Sitio; 8–9 Feb. 2009; F.C. Ocampo leg.; CEMT. – **Corrientes** • 1 ♂, 2 ♀♀, 73 specs; Corrientes, Barrio Víctor Colas; 27°28′50″ S, 58°47′18″ W; elev. 64 m; 21 Oct. 2012; M.I. Polesel *et al.* leg.; light; CEMT. – **Entre Ríos** • 4 specs; Liebig, Pueblo; Feb. 1994; A.U. Peña leg.; CEMT. – **Formosa** • 1 spec.; Laguna, Yema, RP37 Km 2; 22°24′42″ S, 61°17′26″ W; 16 Dec. 2008; F.C. Ocampo leg.; CEMT. – **Mendoza** • 66 specs; Desaguadero; 5 Feb. 2017; G. Arriágada leg.; CEMT • 1 spec.; Lavalle, Res. Bio. Telteca; 9 Dec. 2002; Arriágada and Diéguez leg.; light trap; CEMT. – **San Luis** • 11 specs; Belgrano, Fundo El Molle; 33°02′23″ S, 66°30′48″ W; elev. 622 m; 7 Feb. 2017; G. Arriágada leg.; CEMT • 2 specs; same data as for preceding; 14–18 Feb. 2018; J. Jensen leg.; light; CEMT • 3 specs; Desaguadero; 20 Feb. 2000; G. Arriágada leg.; CEMT.

AUSTRALIA – **Western Australia** • 2 specs; Moore River; 12 Oct. 1992; H.Z. Demor leg.; CEMT.

BOLIVIA – **Santa Cruz** • 3 specs; Chiquitos, 1.6 km E of Santiago de Chiquitos; 18°12′04″ S, 59°21′00″ W; elev. 622 m; Nov. 2008; W.D. Edmonds and T. Vidaurre leg.; light; CEMT.

BRAZIL – **Alagoas** • 1 spec.; APA Marituba Peixe; 19–25 Aug. 2019; A.B. Farias and LASDA leg.; CEMT. – **Bahia** • 1 spec.; Camacan, Rio Panelão; 15°24′28″ S, 39°32′04″ W; elev. 176 m; 12 Aug. 2016; A.P.M. Santos and D.M. Takiyama leg.; light; CEMT • 1 spec.; Santa Rita de Cássia; 14 Jan. 2020; M.S. Cardoso leg.; CEMT. – **Distrito Federal** • 1 spec.; Brasília; elev. 1100 m; Jan. 2001; N. Degallier leg.; light; CEMT • 1 spec.; same data as for preceding; Fazenda Água Limpa (UNB); Nov. 2010; C. Suinaga leg.; CEMT • 1 spec.; Brasilia, Planaltina, Embrapa cerrados; 15°36′16″ S,47°44′16″ W; 7 Sep. 2005; C. Oliveira leg.; agricultural area; light; CEMT • 23 specs; same data as for preceding; 15°35′54″ S, 47°42′51″ W; 17 Dec. 2005; CEMT • 11 specs; same data as for preceding; 18 Nov. 2005; CEMT • 54 specs; same data as for preceding; 2 Dec. 2005; CEMT • 17 specs; same data as for preceding; 5 Jan. 2006; CEMT • 11 specs; same data as for preceding; 19 Jan. 2006; CEMT • 10 specs; same data as for preceding; 6 Feb. 2006; CEMT • 26 specs; same data as for preceding; CEMT • 5 specs; same data as for preceding; 11 May 2006; CEMT • 2 specs; same data as for preceding; 26 May 2006; CEMT • 23 specs; same data as for preceding; 7 Apr. 2006; CEMT • 3 specs; same data as for preceding; CEMT • 26 specs; same data as for preceding; 20 Jun. 2006; CEMT • 4 specs; same data as for preceding; 2 Jul. 2006; CEMT. – **Goiás** • 1 spec.; Rio Verde; 12 Nov. 1983; A. Bello leg.; CEMT • 1 spec.; same data as for preceding; Nov. 1983; CEMT • 1 spec.; same data as for preceding; Apr. 1995; S. Carlos leg.; CEMT. – **Maranhão** • 1 spec.; Carolina, Fazenda Cincorá; 17–22 Oct. 2009; F. Lima-de-Oliveira *et al.* leg.; light; CEMT. – **Mato Grosso** • 2 specs; Res. Papagaio, BR364 Km 555; 2 Oct. 1984; E. Binda; light

trap; CEMT • 2 specs. same data as for preceding; INPA • 3 specs; Água Boa, Rancho Araguaia; 13°56′40″ S, 52°06′10″ W; 24 Dec. 2007; Mota and Schutz leg.; CEMT • 2 specs; Alta Floresta, CEPLAC; 4 Sep. 2009; V. Gonçalves leg.; *Tapirus* feces; CEMT • 3 specs; same data as for preceding; 4 Sep. 2010; human feces; CEMT • 1 spec.; Brasnorte, Fazenda Hermínia; 11°57′03″ S, 58°14′43″ W; elev. 300 m; 29 Nov.–1 Dec. 2017; U.F. Santos leg.; soybean plantation; human dung; CEMT • 1 spec.; same data as for preceding; CEMT • 3 specs; Campo Novo do Parecis, Rio Membeca, Sete Lagoas, Fazenda Santa Teresinha; 13°32′00″ S, 57°47′57″ W; 14 Nov. 2017; D.G. Arruda leg.; FIT; CEMT • 1 spec.; Chapada dos Guimarães; 12 Dec. 2000; A.F. Ramos leg.; CEMT • 1 spec.; same data as for preceding; 15°24′31″ S, 55°45′53″ W; 2 Dec. 2015; A. Frolov and L. Akhemetova leg.; light; CEMT • 2 specs; Chapada dos Guimarães, Santuário dos Elefantes; 2 Nov. 2019; F.Z. Vaz-de-Mello leg.; CEMT • 2 specs; same data as for preceding; 15°18′55″ S, 55°24′07″ W; 4 Nov. 2019; H. Sehn *et al.* leg.; horse feces; CEMT • 1 spec.; same data as for preceding; 15°18′54″ S, 54°24′03″ W; elephant feces; CEMT • 9 specs; same data as for preceding; 15°18′51″ S, 55°24′10″ W; CEMT • 2 specs; same data as for preceding; horse feces; CEMT • 1 spec.; same data as for preceding; 15°18′55″ S, 55°24′14″ W; 23 Jan. 2020; Sehn *et al.* leg.; horse feces; CEMT • 2 specs; same data as for preceding; cow feces; CEMT • 1 spec.; same data as for preceding; 15°18′55″ S, 55°24′10″ W; elephant feces; CEMT • 2 specs; same data as for preceding; 15°18′50″ S, 55°24′12″ W; 24 Jan. 2020; H. Sehn *et al.* leg.; elephant feces; CEMT • 1 spec.; Cotriguaçu; 31 Oct. 2007; O. Peres-Filho leg.; CEMT • 4 specs; same data as for preceding; 15 Dec. 2007; light; CEMT • 1 spec.; same data as for preceding; 16 Jan. 2008; CEMT • 2 specs; same data as for preceding; Assentamento INCRA; 1 Nov. 2017; R. Stofel leg.; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 15 Aug. 2007; O.P. Filho leg.; CEMT • 3 specs; same data as for preceding; 31 Oct. 2007; O. Peres-Filho leg.; light; CEMT • 1 spec.; same data as for preceding; 15 Dec. 2007; CEMT • 8 specs; same data as for preceding; 9°51′52″ S, 58°13′45″ W; 2 Oct. 2017; Vaz-de-Mello *et al.* leg.; CEMT • 23 specs; same data as for preceding; airport; light trap; CEMT • 1 spec.; same data as for preceding; 9°51′41″ S, 58°13′51″ W; 2 Nov. 2017; light; CEMT • 2 specs; same data as for preceding; airport; CEMT • 1 spec.; same data as for preceding; 9°49′23″ S, 58°17′14″ W; 3 Nov. 2017; light trap; CEMT • 1 spec.; same data as for preceding; 9°50′19″ S, 58°15′15″ W; 29 Oct. 2017; Costa-Silva *et al.* leg.; CEMT • 2 specs; same data as for preceding; 9°49′9″ S, 58°15′31″ W; 21 Oct. 2018; CEMT • 1 spec.; Nobres; 30 Sep. 2018; R. Segalla and M. Cassiano leg.; CEMT • 6 specs; Diamantino, Reserva Vale da Solidão; 14°22′ S, 56°7′ W; elev. 450 m; 30 Oct. 2013; E. Furtado leg.; CEMT • 4 specs; Nova Ubiratã, ESEC Rio Ronuro; 25 Feb. 2017; L.G.O.A. Nunes *et al* leg.; CEMT • 1 spec.; same data as for preceding; 13°06′43″ S, 54°26′37″ W; 2 Mar. 2017; L.G.O.A. Nunes leg.; light; CEMT • 3 specs; Santo Antônio do Leverger, Porto de Fora; 16°05′17″ S, 55°48′41″ W; 29–31 Dec. 2019; B.R. Bordin and B.P. Queiroz leg.; cow dung; CEMT • 1 spec.; Sesc Pantanal; 7 Jul. 2003; light; CEMT. – **Mato Grosso do Sul** • 1 spec.; Inocência, Fazenda Moinho; 19°13′12″ S, 52°09′34″ W; elev. 502 m; 15 Oct. 2018; H.L. Rainho leg.; light; CEMT • 26 specs; same data as for preceding; 21 Oct. 2018; CEMT • 1 spec.; Guia Lopes da Laguna; 15 Feb. 2007; A. Abot leg.; light; CEMT • 1 spec.; same data as for preceding; 29 Jul. 2008; CEMT • 1 spec.; Selvíria, UNESP farm; 22 Jan. 1991, C.A.H. Flechtmann; *Brachiaria decumbens* pasture; *Bubalus bubalis* dropping; CEMT • 1 spec.; same data as for preceding; 16 Mar. 1991; CEMT • 1 spec.; same data as for preceding; 8 Jun. 1991; CEMT • 1 spec.; same data as for preceding; 10 Aug. 1991; CEMT • 3 specs; same data as for preceding; 6 Jul. 1991; CEMT • 1 spec.; same data as for preceding; 1 Jun. 1991; S.R. Rodrigues leg.; INPA. – **Minas Gerais** • 2 specs; Campanha, Rod. Vital Brazil; 21°47′49″ S, 45°25′40″ W; 5 Jun. 2016; F. França leg.; CEMT • 1 spec.; Conceição do Mato Dentro, 23K; elev. 734 m; 22 Sep. 2012; Uceli and Borges leg.; CEMT • 1 spec.; Cordisburgo, Fazenda Pontinha; Jan. 1996; Vaz-de-Mello leg.; CEMT • 21 specs; Frei Gaspar, Sítio Recanto Paraíso; 18°02′06″ S, 41°29′10″ W; elev. 571 m; 28 Dec. 2007; M.R. Santos leg.; CEMT • 10 specs; same data as for preceding; 30 Dec. 2007; light; CEMT • 24 specs; same data as for preceding; 3 Jan. 2008; CEMT • 2 specs; Ipatinga; Sep. 1993; E. Grossi leg.; CEMT • 2 specs; Uberaba; Oct. 1995; Vaz-de-Mello leg.; CEMT • 4 specs; Viçosa; 20 Sep. 1993; Louzada and Silva leg.; CEMT. – **Paraná** • 8 specs; Icaraíma; 23°23′ S, 53°37′ W; elev. 357 m; 2019; Felipe and Rodrigues leg.; CEMT • 22 specs;

same data as for preceding; Estância Felipe; 23°20′32″ S, 53°39′09″ W; elev. 300 m; CEMT • 1 spec.; Rancho Alegre, Fazenda Congonhas; 22°47′45″ S, 51°00′12″ W; elev. 580 m; 27 Dec. 2012; P.M. Pelix leg.; canopy; feces; CEMT. – **Rio de Janeiro** • 3 specs; Cachoeiras de Macacu, Guapiaçu ER; 22°27′05″ S, 42°46′23″ W; elev. 33 m; 25 Oct. 2019; L.R. Martínez leg.; horse feces; CEMT • 46 specs; Jan. 1998; J. Carlos leg.; CEMT • 1 spec.; same data as for preceding; Feb. 1998; CEMT • 28 specs; same data as for preceding; Mar. 1998; CEMT • 1 spec.; Nova Friburgo; Nov. 2002; E.J. Grossi leg.; CEMT. – **Rio Grande do Sul** • 1 spec.; Aceguá, Fazenda Sentinela; 31°27′30″ S, 54°21′18″ W; 8–14 Nov. 2011; R.M. Moraes leg.; FIT; CEMT • 1 spec.; Bagé, Santo Afonso; 7–13 Jan. 2012; R.M. Moraes leg.; soy farm; human and pig dung; CEMT • 1 spec.; Eldorado do Sul; 4 Oct. 1996; Carvalho and Silva leg.; CEMT • 1 spec.; same data as for preceding, Estação Experimental UFRGS; 30 Mar.–5 Apr. 2012; R.M. Moraes and J. Podkowa; pitfall; CEMT • 1 spec.; Santa Cruz do Sul, Cerro Alegre; 29°48′02″ S, 51°19′39″ W; 10 Dec. 2010; R. Bohn; pitfall; CEMT • 18 specs; same data as for preceding; 29°48′05″ S, 52°19′39″ W; 24 Mar. 2012; R. Bohn leg.; grassfield; bovine feces; CEMT • 7 specs; same data as for preceding; 29°48′11″ S, 52°19′51″ W; annual crop; CEMT • 7 specs; same data as for preceding; 29°48′17″ S, 52°19′59″ W; forest; CEMT • 8 specs; same data as for preceding; 29°48′19″ S, 52°19′53″ W; secondary forest; CEMT • 29 specs; same data as for preceding; 29°48′18″ S, 52°19′55″ W; open area 29; CEMT. – **São Paulo** • 2 specs; Porto Ferreira; 21°52′11″ S, 47°28′5″ W; 19 Oct. 2019; G. Biffi leg.; CEMT • 1 spec.; São Paulo, Jardim Marilda; 23°47′19″ S, 46°40′34″ W; elev. 754 m; Nov.–Dec. 2020; H. Marota leg.; CEMT. – **Tocantins** • 3 specs; Palmas, Fazenda Recanto Valadares; 20 Sep. 2005; M.S. Matos leg.; CEMT.

CHILE – **Santiago** • 3 specs; El Peñón; 28 Jan. 1995; V.M.M. Diéguez leg.; CEMT.

ECUADOR – **Loja** • 1 spec.; Gonzanama; elev. 2000 m; 28 Aug. 1997; C. Carpio leg.; CEMT.

PARAGUAY – **Amambay** • 1 spec.; Pedro Juan Caballero; Nov. 1998; M.A. Ruíz-Dias leg.; CEMT.

MEXICO – **Chiapas** • 3 specs; Cintalapa, Ejido Gustavo Díaz Ordaz; 16°40′15″ N, 94°11′27″ W; elev. 1035 m; 4 Jul. 2006; Reyes-Castillo and Vaz-de-Mello leg.; UV light; CEMT • 1 spec.; Palenque; Jun. 2004; F. Nicolalde leg.; CEMT. – **Michoacán** • 1 spec.; Tzintzuntzita; 19°37′34″ N, 101°34′43″ W; elev. 2050 m; Jul. 2007; F.Z. Vaz-de-Mello leg.; CEMT. – **Veracruz** • Perote, El Conejo; 19°31′20″ N, 97°09′39″ W; elev. 3500 m; Jul. 2007; F.Z. Vaz-de-Mello and Louzada leg.; CEMT**.**

UNITED STATES OF AMERICA – **California** • 1 spec.; Co. Riverside; 13 Feb. 1971; K.R. Cardin leg.; INPA.

URUGUAY – **Cerro Largo** • 1 spec.; Meio, La Invernada farm; 13–20 Dec. 2011; R.M. Moraes leg.; human and pig dung; CEMT. – **Rivera** • 1 spec.; Rivera, COFUSA; 30°57′36″ S, 55°29′53″ W; 3–11 Oct. 2011; human and pig dung; R.M. Moraes leg.; CEMT • 2 specs; Rivera, Bodegas Carrau farm; 30°58′19″ S, 55°26′40″ W; FIT; CEMT • 2 specs; same data as for preceding; human and pig dung; CEMT • 4 specs; same data as for preceding; 30°58′16″ S, 55°26′38″ W; human and pig dung; CEMT • 2 specs; Vichadero, Adelaida farm; 31°41′5.62″ S, 54°39′42.76″ W; 3–11 Oct. 2011; R.M. Moraes leg.; human and pig dung; CEMT • 4 specs; same data as for preceding; 31°41′04″ S, 54°37′25″ W; CEMT.

Sexual dimorphism

Male with median tubercle more developed than that of female.

Collecting information

Labarrus pseudolividus specimens were collected in bovine, human, pig, horse and *Tapirus* feces and with black light and flight intercept traps. This species can be found at altitudes ranging from 64 to 2050

metres in open areas such as grasslands and soy crops or in areas of secondary forest (Mesquita *et al.* 2017).

Genus ***Neodiapterna*** Dellacasa, 1986

Diagnosis

Length 7.0–9.0 mm. Body strongly convex, glabrous dorsally, piceous, elytra testaceous posteriorly. Head with moderate punctures, frontoclypeal suture weakly impressed, faint; clypeus sinuate. Pronotum without lateral and posterior marginal line, with punctures of two sizes. Mesoscutellum large, almost 1/3 the length of elytral suture. Protibia punctate dorsally, meso- and metatibiae with strong set of transverse carinae; metatibiae apically fringed by setae of similar sizes.

Remarks

Neodiapterna comprises two species. *Neodiapterna erichsoni* is distributed across Argentina, Brazil and Paraguay (Dellacasa & Dellacasa 1997). *Neodiapterna tognoni* Dellacasa & Dellacasa, 1997 is only known from Bolivia (Dellacasa & Dellacasa 1997). A key for the species can be found in Dellacasa & Dellacasa (1997).

Neodiapterna erichsoni (Harold, 1861)
Figs 7B, 37A

Aphodius erichsoni Harold, 1861: 104.

Aphodius (*Diapterna*) *erichsoni* – Kozhantshikov 1913: 262.
Aphodius (*Neodiapterna*) *erichsoni* – Dellacasa 1987: 244.
Neodiapterna erichsoni – Dellacasa *et al*. 2001a: 200,

Diagnosis

Length 7.0–9.0 mm. Pronotum with large punctures amply distributed on disc and lateral margins; posterior angles obtuse, ending in a subtle but evident backwards projection.

Material examined

BRAZIL – **Paraná •** 1 spec.; Castro Socavão, Cachoeira Roncadora; 24 Jun. 2006; Grossi and Parizorro leg.; CEMT. – **Rio Grande do Sul •** 2 specs; Bagé; May 2006; L.D. Audino leg.; CEMT • 1 spec.; same data as for preceding; Embrapa CPP Sul; 31 Jul. 2006; L.D. Audino leg.; *Eucalyptus*; FIT; CEMT. – **Santa Catarina •** 1 spec.; Urubici (Parna S.JQ); 49°37′04.80″ S, 28°8′43.88″ W; 14 Dec. 2015; P.G. da Silva leg.; campo; horse feces; CEMT. – **São Paulo •** 1 spec.; São Miguel Arcanjo, P.E. Carlos Botelho; 24°3′59″ S, 47°59′39″ W; elev. 580 m; 15 May 2012; M. Boutefeu leg.; *Tapirus* feces; CEMT • 1 spec.; same data as for preceding; 11 Jun. 2012; CEMT • 1 spec.; same data as for preceding; 6 Jul. 2012; CEMT.

Sexual dimorphism

Females with apical spur of protibia more slender and downwardly bent when compared with males. Pronotum more densely punctate in females.

Collecting information

Specimens were collected in *Tapirus* and horse feces and with a flight intercept trap.

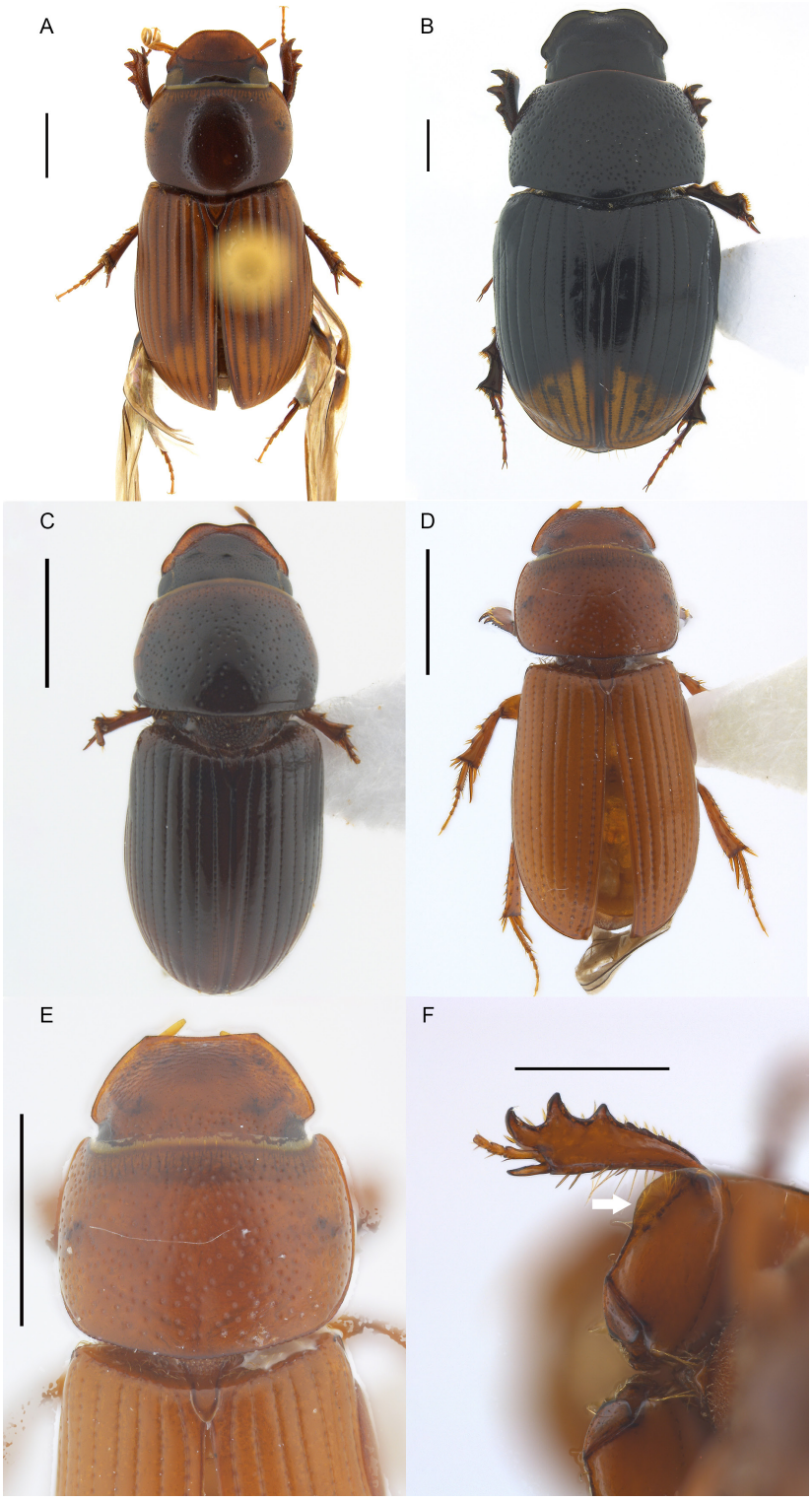

Fig. 7. A. *Trichaphodius quadripartitus* (Petrovitz, 1973) (CEMT), São José dos Linhares, dorsal habitus. **B**. *Neodiapterna erichsoni* (Harold, 1861) (CEMT), Castro Socavão, Paraná, Brazil, habitus, dorsal view. **C**. *Nialaphodius nigrita* (Fabricius, 1801), ♂ (CEMT), Itacoatiara, Amazonas, Brazil, habitus, dorsal view. **D–F**. *Ataeniopsis notabilis* Petrovitz, 1973 (CEMT), Teresina, Piauí, Brazil. **D**. Dorsal habitus. **E**. Pronotum, dorsal view. **F**. Profemur, ventral view (arrow indicates translucent projection). Scale bars: A–D = 1 mm; E–F = 0.5 mm.

Genus ***Neotrichaphodioides*** Dellacasa, Dellacasa & Skelley, 2010

Diagnosis

Length 3.5–6.0 mm. Body, oblong, dorsally glabrous, testaceous with brownish areas or dark testaceous. Head wide, finely punctate; clypeus weakly sinuate or not sinuate at all; frontoclypeal suture evident; gena strongly obtuse. Pronotum wide, with punctures of two sizes, without marginal line posteriorly; posterior angles of pronotum truncate, weakly inwardly sinuate. Elytra with interstriae convex, microreticulate and weakly punctate. Protibiae punctate dorsally, metatibiae weakly broadened apically. Males with second labial palpomere enlarged, wider and longer than first and third palpomeres.

Remarks

Neotrichaphodioides is a genus with five species known from Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Peru and Venezuela (Dellacasa *et al.* 2010b). A key for all its species can be found in Dellacasa *et al.* (2010b).

Key to species of *Neotrichaphodioides* from Brazil (adapted from Dellacasa *et al.* 2010b) (Portuguese version in Supp. file 1)

1. Elytral interstriae strongly convex, without darkened posterior spot; clypeus truncate, sub-trapezoidal (Fig. 5B). Large specimens (lenght 5.0–6.0 mm) ..... ***N. volxemi*** (Harold, 1876) (Fig. 5A–B)
– Elytral interstriae weakly convex, with a posterior darkened spot; clypeus rounded (Fig. 5D). Smaller specimens (lenght 3.5–4.5 mm) ..... ***N. caracanus*** (Balthasar, 1970) (Fig. 5C–D)

Neotrichaphodioides caracanus (Balthasar, 1970)
Figs 5C–D, 37A

Aphodius (*Gonaphodiellus*) *caracanus* Balthasar, 1970: 250.
Gonaphodiellus (*Gonaphodiellus*) *martinsi* Petrovitz, 1970: 227.

Neotrichaphodioides caracanus – Dellacasa *et al*. 2010b: 3.

Diagnosis

Length 3.5–4.5 mm. Body light testaceous. Head with clypeus weakly sinuate, rounded. Pronotum with punctures of two sizes; posterior margin weakly sinuate. Elytra lighter than head and pronotum with darkened rounded spot; interstriae weakly convex.

Material examined

BRAZIL – **Distrito Federal** • 1 ♂; Planaltina, Embrapa Cerrados; 15°36′20″ S, 47°42′26″ W; 7 Oct. 2005; C. Oliveira leg.; cerrado fragment; light; CEMT • 1 ♂; same data as for preceding; 20 Oct. 2005; native cerrado; CEMT • 8 ♂♂, 1 ♀; same data as for preceding; 15°35′54″ S, 47°42′51″ W; 2 Dec. 2005; agricultural area; CEMT • 9 ♂♂, 1 ♀; same data as for preceding; 15°36′16″ S, 47°44′16″ W; native cerrado; CEMT • 4 ♀♀; same data as for preceding; 15°35′54″ S, 47°42′51″ W; 18 Nov. 2005; agricultural area; CEMT • 1 ♂, 2 ♀♀; same data as for preceding; 15°36′16″ S, 47°44′16″ W; native cerrado; CEMT • 2 ♂♂, 1 ♀; same data as for preceding; 5 Jan. 2006; CEMT • 1 ♀; same data as for preceding; 5°35′54″ S, 47°42′51″ W; 19 Jan. 2006; agricultural area; CEMT • 1 ♀; same data as for preceding; 19 Jun. 2006; CEMT • 42 ♂♂, 91 ♀♀; same data as for preceding; 15°36′20″ S, 47°42′16″ W; 3 Nov. 2006; CEMT. – **Mato Grosso** • 1 ♂; Chapada dos Guimarães; 11 Dec. 2000; A.F. Ramos leg.; light; CEMT • 2 ♂♂; same data as for preceding; Santuário dos Elefantes; 2 Nov. 2019; F.Z. Vaz-de-Mello leg.; CEMT. – **Minas Gerais** • 1 ♂; Ijací, Fazenda FAEPE; Nov. 2002; J. Louzada leg.; CEMT.

Sexual dimorphism

Males with labial palpomere enlarged, head wider and clypeus less sinuate than that of females; females with head and pronotum more densely punctate.

Collecting information

Specimens are easily collected at light in Cerrado and agricultural areas. This species was found at altitudes up to 1380 m (Dellacasa *et al.* 2010b).

Neotrichaphodioides volxemi (Harold, 1876)
Figs 5A–B, 37A

Aphodius Van Volxemi Harold, 1876: 93.
Aphodius (*Gonaphodiellus*) *squamifer* Petrovitz, 1970: 225.

Aphodius (*Trichaphodius*) *volxemi* – Schmidt 1913: 136.
Aphodius volxemi – Blackwelder 1944: 213.
Neotrichaphodioides volxemi – Dellacasa *et al*. 2010b: 5.

Diagnosis

Length 5.0–6.0 mm. Body dark testaceous. Head with clypeus trapezoidal. Pronotum with punctures of two sizes; posterior margin strongly sinuate. Elytra as dark as disc of pronotum and head, with a rounded lighter area posteriorly located; interstriae strongly convex.

Material examined

BRAZIL – **Distrito Federal** • 1 ♀; Brasília, Planaltina; 15°36′24.52″ S, 47°44′42.45″ W; 6 Nov. 2015; A. Specht leg.; CEMT. – **Minas Gerais** • 1 ♂; Corinto; 16 Jan. 1998; CEMT • 5 ♂♂, 2 ♀♀; Ingaí-Lavras, Próx Poço Bonito; Nov. 2002; F.Z. Vaz-de-Mello leg.; CEMT • 2 ♂♂, 3 ♀♀; Ijací, Fazenda FAEPE; Nov. 2002; J. Louzada leg.; CEMT • 1 ♂, 1 ♀; Lavras, Campus da Ufla; Nov–Dec. 2001; F.Z. Vaz-de-Mello leg.; light; CEMT • 1 ♂; same data as for preceding; 15 Nov. 1997; CEMT • 1 ♀; Lavras, Prox. Poço Bonito; Dec. 2001; Vaz-de-Mello leg.; CEMT • 3 ♂♂, 1 ♀; Santa Barbará; 17 Feb. 1996; J.C. Zanuncio leg.; CEMT • 1 ♀; Sete Lagoas, Embrapa; 19°26′49″ S, 44°10′19″ W; elev. 715 m; 25 Nov. 2011; Mendes leg.; light; CEMT • 1 ♂, 1 ♀; Teixeiras; Nov. 1996; Hardy and Harrison leg.; CEMT • 1 ♂; Viçosa; Oct. 1998; Vaz-de-Mello leg.; FIT; CEMT • 1 ♂; same data as for preceding; 9 Nov. 2000; M.F.G. Mata leg.; CEMT • 1 ♀; same data as for preceding; elev. 780 m; 7–14 Nov. 1996; M. Hardy leg.; CEMT • 1 ♀; same data as for preceding; Córrego do Paraíso, Mata da Prefeitura; 11 Dec. 1984; Fiuza and Martins leg.; CEMT.

Sexual dimorphism

Males with second palpomere of labial palpi enlarged, head wider and clypeus less sinuate than that of females.

Collecting information

Specimens collected at light and with flight intercept traps. This species can be found at altitudes of 780 metres (Dellacasa *et al.* 2010b).

Genus ***Nialaphodius*** Kolbe, 1908

Diagnosis

Length 3.5–5.5 mm. Body elongate, piceous. Head, with clypeus emarginate; gena prominent; frontoclypeal suture tuberculate. Pronotum convex, punctate with punctures of two sizes. Elytral

interstriae weakly convex; punctate with fine punctures. Protibiae not punctate in dorsal view. Meso- and metatibiae with evident set of transversal carinae.

Remarks

Similar to *Labarrus*, *Nialaphodius* may have been introduced in the New World. The genus is currently comprised of two species *Nialaphodius calidus* (Harold, 1871) and *N. nigrita* (Schoolmeesters 2023). Both species are widely distributed across the African continent but only *N. nigrita* is currently recorded in the New Word (Dellacasa *et al.* 2001a; Skelley *et al*. 2007; Bordat 2011).

Nialaphodius nigrita (Fabricius, 1801)
Figs 7C, 37B

[See Dellacasa *et al*. 2016 for full synonymy].

Diagnosis

Length 3.5–5.5 mm. Body strongly convex. Head densely punctate; frontoclypeal suture elevate. Pronotum with punctures of two sizes, fine and coarse; posterior margin without posterior marginal line.

Material examined

BOLIVIA – **Santa Cruz** • 1 spec.; Chiquitos, 1.6 km E of Santiago de Chiquitos; 18°12′4″ S, 59°21′0″ W; elev. 622 m; Nov. 2008; W.D. Edmonds and T. Vidaurre leg.; light; CEMT.

BRAZIL – **Amazonas** • 1 spec.; Lago de Janauoá; 30 Aug. 1962; Júlio and Delono leg.; CEMT • 1 spec.; Itacoatiara, Fazenda Aruana, Am010, Km 215; 12–15 Jan. 1991; C.S. Motta *et al.* leg.; CEMT. – **Bahia** • 1 spec.; Caravelas; Mar. 1996; R. Diniz leg.; CEMT • 1 spec.; same data as for preceding; Feb. 1997; S.R. Silveira leg.; CEMT • 1 spec.; Macuri City; 4 Oct. 1997; Anjos and Silveira leg.; CEMT. – **Distrito Federal** • 1 spec.; Brasília; elev. 1100 m; Feb. 2001; N. Degallier leg.; CEMT. – **Espírito Santo** • 1 spec.; Conceição do Castelo, Ribeirão do Meio, Posto Pinga Fogo BR262; Feb. 2010; R. Falqueto leg.; CEMT. – **Maranhão** • 3 specs; Carolina, Fazenda Cincorá; 17–22 Oct. 2009; F. Limeira-de-Oliveira *et al.* leg.; light; CEMT. – **Mato Grosso** • 1 spec.; Res. Papagaio, BR-364 Km 555; 2 Oct. 1984; E. Binda leg.; light; INPA • 1 spec.; Chapada dos Guimarães, Santuário dos Elefantes; 15°18′51″ S, 55°24′10″ W; 4 Sep. 2019; H. Sehn leg.; elephant feces; CEMT • 1 spec.; same data as for preceding; 15°18′55″ S, 55°24′7″ W; 23 Jan. 2020; cow feces; CEMT • 2 specs; Cotriguaçu, Fazenda São Nicolau; 16 Oct. 2007; O.P. Peres-Filho leg.; light; CEMT • 2 specs; same data as for preceding; 31 Nov. 2007; CEMT • 3 specs; same data as for preceding; light; CEMT • 2 specs; same data as for preceding; Nov. 2007; CEMT • 1 spec.; same data as for preceding; 15 Dec. 2007; CEMT • 9 specs; same data as for preceding; 9°51′52″ S, 58°13′45″ W; 2 Oct. 2017; Vaz-de-Mello *et al.* leg.; airport; light trap; CEMT • 1 spec.; same data as for preceding; 9°49′23″ S, 58°17′14″ W; 3 Oct. 2017; CEMT • 1 spec.; same data as for preceding; 9°50′19″ S, 58°15′15″ W; Matinha do Fernando; CEMT • 1 spec.; same data as for preceding; 9°51′20″ S, 58°14′55″ W; Nov. 2014; R.V. Nunes and A. Asenjo leg.; light; CEMT • 5 specs; same data as for preceding; 9°50′19″ S, 58°15′3″ W; 25 Oct. 2014; A. Asenjo leg.; light; CEMT • 1 spec.; Diamantino; Jan. 2001; A.M. Bello leg.; CEMT • 1 spec.; Sesc Pantanal; 13 Apr. 2002; CEMT. – **Mato Grosso do Sul** • 1 spec.; Dourados; 6 Feb. 2006; M. Milo leg.; CEMT • 2 specs; Guia Lopes da Laguna; 25 May 2008; A. Abot leg.; CEMT • 1 spec.; Selvíria, UNESP farm; 1 Jun. 1991; C.A.H. Flechtmann leg.; *Brachiaria decumbens* pasture; Guzera bovine dropping; CEMT • 1 spec.; same data as for preceding; 4 Jul. 1990; CEMT • 1 spec.; same data as for preceding; 11 Jul. 1990; CEMT • 2 specs; same data as for preceding; 22 Jan. 1991; CEMT • 1 spec.; same data as for preceding; 29 Jan. 1991; CEMT • 1 spec.; same data as for preceding; 1 Jun. 1991; CEMT • 2 specs; same data as for preceding; 20 Jul. 1991; CEMT • 1 spec.; same data as for preceding; 10 Aug. 1991; CEMT • 1 spec.; same data as for preceding; 20 Aug. 1991; CEMT • 1 spec.; same data as for preceding; 27 Oct. 1991; CEMT • 1 spec.; same data as for preceding;

30 May 1992; CEMT • 1 spec.; same data as for preceding; 30 May 1992; CEMT • 2 specs; same data as for preceding; 25 Jul. 1992; CEMT • 2 specs; same data as for preceding; 30 May 1993; CEMT • 1 spec.; same data as for preceding; 1 Jun. 1991; S.R. Rodrigues leg.; INPA. – **Minas Gerais** • 1 spec.; Conceição do Mato Dentro, 23k; 66°41′32″ S, 79°11′853″ W; elev. 734 m; 5 Dec. 2012; Uceli and Borges leg.; light; CEMT • 1 spec.; Cordisburgo, Fazenda Pontinha; Jan. 1994; CEMT • 1 spec.; same data as for preceding; Jul. 1994; de Mello leg.; CEMT • 2 specs; same data as for preceding; Jan. 1996; Vaz-de-Mello leg.; CEMT • 3 specs; same data as for preceding; Jan. 1999; CEMT • 1 spec.; Ipatinga; Sep. 1993; E. Grossi leg.; CEMT • 1 spec.; Mariana; 7 Dec. 1998; J.L. Moreno and T. Mestre leg.; CEMT • 3 specs; Paraopeba; Feb. 1997; Lourenço S. leg.; CEMT • 1 spec.; Viçosa; 24 May 1997; CEMT • 1 spec.; Visconde do Rio Branco; Jan. 1998; W. Zikan leg.; CEMT • 1 spec.; Recreio; Jan. 2000; Lopes-Andrade leg.; CEMT. – **Rio de Janeiro** • 1 spec.; Nova Friburgo, Macaé de Cima; Nov. 1998; F.Z. Vaz-de-Mello and E. Grossi leg.; CEMT. – **Rondônia** • 1 spec.; Anhembi, ESALQ/USP; E.N.L. Ferreira leg.; CEMT • 1 spec.; 62 km S of Ariquemes, Fazenda Rancho Grande; Feb. 1997; Vaz-de-Mello *et al.* leg.; CEMT • 1 spec.; Peto Velho, Rio das Garças; 8°49′56″ S, 63°46′47″ W; 27 Aug. 2017; D.C. Santos and K.K.G. Silva leg.; FIT; CEMT. – **Roraima** • 1 spec.; Amajari, Eec Maracá, Uraricoera River; 3°20′59″ N, 61°25′22″ W; elev. 83 m; 24 Mar. 2016; A.P.M. Santos *et al.* leg.; CEMT. – **São Paulo** • 1 spec.; Beira Pereiro Barreto, Vale do Paraíso Farm; 5 May 1993; M.A.F. Aio leg.; *Brachiaria decumbens* pasture; Nelore dropping; CEMT.

COLOMBIA – **Cundinamarca** • 1 spec.; Fusa; Sep. 2000; J. Noriega leg.; cow feces; CEMT.

ECUADOR – **Manabi** • 1 spec.; El Carmen; 0°16′08″ S, 79°28′20″ W; elev. 260 m; 28 Dec. 1995; T. Jaramillo leg.; CEMT. – **Zamora** • 1 spec.; Ch. Las Penãs; elev. 1000 m; 24 Aug. 1997; C. Carpio leg.; CEMT.

MEXICO – **Chiapas** • 2 specs; Palenque; Jun. 2004; F. Nicolalde leg.; CEMT • 2 specs; Cintalapa, Ejido, Gustavo Díaz Ordaz; 16°40′15″ N, 94°11′27″ W; elev. 1035 m; 4 Jul. 2006; Reyes-Castillo and Vaz-de-Mello leg.; UV light; CEMT.

PARAGUAY – **Paraguary** • 1 spec.; Naranjo; 5 Nov. 2000; G. Arriágada leg.; CEMT.

PERU – **Corongo** • 3 specs; La Pampa; 5–12 Feb. 2012; P. Castilla leg.; CEMT.

UNITED STATES OF AMERICA – **Florida** • 1 spec.; W.S.B. Dunedin leg.; CEMT.

Sexual dimorphism

Males with frontoclypeal tubercle more developed than that of females.

Collecting information

Specimens were collected in *Urochloa brizantha* pasture regions with UV light and flight intercept trap as well as in cattle dung (Mesquita *et al.* 2017).

Genus ***Pleuraphodius*** Schmidt, 1913

Diagnosis

Length 3.0–5.0 mm. Body oval-elongate, glabrous. Head with clypeus sinuate medially; frontoclypeal suture evident, not tuberculate. Pronotum transverse; posterior angles obliquely truncate. Elytra with humeral tooth developed; interstriae of disc carinate.

Pleuraphodius vespuccii (Petrovitz, 1972)

Aphodius vespuccii Petrovitz, 1972: 162.

Pleuraphodius vespucci – Skelley *et al.* 2007: 6.

Diagnosis

Length 3.5 mm. Body narrow, weakly arched. Head densely punctured with anterior margin somewhat elevate, clypeus faintly sinuate. Pronotum with posterior marginal line. Elytra with humerus lacking teeth; interstriae somewhat raised, third, fifth and sixth interstriae more elevate than others.

Sexual dimorphism

No information available in literature.

Collecting information

No information available in literature.

Remarks

Pleuraphodius is a genus considered to be restricted to the Old World (Dellacasa *et al*. 2001a). *Pleuraphodius vespuccii* was described from Serra de Paranapiacaba, São Paulo State, Brazil, but Skelley *et al.* (2007) comment on how this species may have been described based on a mislabeled specimen and should probably be removed from the list of New World taxa.

Genus ***Trichaphodiellus*** Schmidt, 1913

Diagnosis

Length 6.0–8.0 mm. Body oblong, dark testaceous. Head with small and sparse punctures; clypeus sinuate medially, with medial tubercle anterior to frontoclypeal suture; frontoclypeal suture evident. Pronotum with sparse punctation, punctures of two sizes; pronotum without posterior marginal line. Dorsal surface of protibia with dense punctation. Meso- and metatibia with two distinct transverse carinae on lateral margin. Apical and lateral margin of metatibia crowned with setae; setae progressively longer closer to margins.

Remarks

Trichaphodiellus is a Neotropical monotypic genus (Dellacasa *et al.* 2001a).

Trichaphodiellus brasiliensis (Castelnau, 1840)
Figs 4D–F, 38A

Aphodius brasiliensis Castelnau, 1840: 65.
Aphodius excellens Endrödi, 1964: 187.

Aphodius (*Trichaphodiellus*) *brasiliensis* – Schmidt 1913: 167.
Trichaphodiellus brasiliensis – Dellacasa *et al*. 2001a: 288.

Diagnosis

Same as for the genus.

Material examined

BRAZIL – **Acre** • 2 specs; Rio Branco; CEMT • 1 spec.; same data as for preceding; 10°01′58.09″ S, 67°42′12.74″ W; 9 Aug. 2015; A. Specht leg.; light; CEMT. – **Amazonas** • 1 spec.; Presidente Figueiredo, Ilha Pantanal; 1°47′49″ S, 59°26′53″ W; 22–24 Jun. 2016; L. Sawaris leg.; submontane dense ombrophilous forest; human and pig dung; CEMT. – **Espírito Santo** • 1 spec.; Linhares, AFCVRD; Oct. 1988; J.S. Santos leg.; CEMT • 2 specs; same data as for preceding; Reserva Natural Vale; 19°09′04″ S, 40°04′14″ W; Dec. 1987; J.S. Santos leg.; light; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, CEPLAC; 4 Sep. 2009; V. Gonçalves leg.; *Tapirus* feces; CEMT • 1 spec.; same data as for preceding; CEMT • 3 specs; same data as for preceding; CEMT • 1 spec.; Apiacás, Parna Juruena; 10 Mar. 2011; M. Lima leg.; CEMT • 1 spec.; Chapada dos Guimarães, Santuário dos Elefantes; 15°18′50″ S, 55°24′19″ W; 21 Jan. 2020; H. Sehn *et al.* leg.; elephant feces; CEMT • 4 specs; same data as for preceding; 15°18′55″ S, 55°24′14″ W; 22 Jan. 2020; CEMT • 1 spec.; same data as for preceding; 15°18′22″ S, 55°24′14″ W; 23 Jan. 2020; CEMT • 1 spec.; same data as for preceding; 15°18′55″ S, 55°24′07″ W; CEMT • 1 spec.; same data as for preceding; 15°18′50″ S, 55°24′12″ W; 24 Jan. 2020; CEMT • 3 specs; Poconé; 26 Apr. 1998; light; CEMT • 1 spec.; Corumbá, Porto Jofre, Fazenda São Bento; 13 Apr. 2011; R.V. Nunes leg.; CEMT • 1 spec.; Cotriguaçú, Fazenda São Nicolau; 10 Dec. 2009; M.R. Barreto leg.; forest; CEMT • 1 spec.; Poconé, Base UFMT; 16°29′56″ S, 56°24′49″ W; Mar. 2012; M. Rossini leg.; CEMT. – **Mato Grosso do Sul** • 1 spec.; Chapadão do Sul; 18°46′30.09″ S, 52°31′04.98″ W; 5 Jan. 2016; A. Specht leg.; light; CEMT. – **Minas Gerais** • 1 spec.; Conceição do Mato Dentro, 23K; 67°69′53″ S, 79°11′57″ W; elev. 711 m; 16 Sep. 2012; Uceli and Borges leg.; CEMT • 1 spec.; same data as for preceding; 66°31′39″ S, 79°11′235″ W; elev. 704 m; 20 Sep. 2012; Uceli and Borges leg.; light; CEMT • 1 spec.; Cordisburgo; Jul. 1992; F. Zagury leg.; CEMT • 1 spec.; same data as for preceding; Fazenda Pontinha; Jan. 1996; Vaz-de-Mello leg.; CEMT • 1 spec.; Marlieria; Jul. 1994; Mello leg.; CEMT • 1 spec.; Viçosa; 11 Feb. 1996; J.N.C. Louzada leg.; CEMT • 4 specs; Pains, ISLA G. do Zé Serafim III; 25 Aug. 2009; R.A. Zampauto leg.; CEMT • 6 specs; Paraopeba; Mar. 1997; S. Lourenço jr leg.; CEMT. – **Pará** • 1 spec.; Parauapebas; 5°56′46″ S, 50°12′17″ W; 26 Feb. 2019; F. França leg.; secondary forest; human and pig dung; CEMT. – **Paraná** • 2 specs; Guaratuba, Estrada dos Castelhanos; elev. 650 m; 25 Nov. 2009; Grossi *et al.* leg.; light; CEMT. – **Paraíba** • 1 spec.; Areia, Mata de Pau Ferro; 2 May–1 Jun. 2000; Avany and Maria leg.; light; CEMT. – **Rio de Janeiro** • 9 specs; Cachoeira de Macacu, Guapiaçu ER; 22°27′5″ S, 42°46′23″ W; elev. 33 m; 22 Sep. 2019; L.R. Martínez leg.; *Tapirus* feces; CEMT • 1 spec.; same data as for preceding; 25 Oct. 2019; horse feces • 7 specs; same data as for preceding; 10 Jan. 2020; CEMT • 1 spec.; Miguel Pereira; Mar. 1998; J. Carlos leg.; CEMT • 2 specs; Nova Friburgo; Nov. 1993; E.J. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Dec. 1995; P. Grossi and E. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Nov. 1997; CEMT • 2 specs; same data as for preceding; Macaé de Cima; Nov. 1998; F.Z. Vaz-de-Mello and E. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Dec. 2000; P. Grossi leg.; CEMT • 1 spec.; Santa Maria Madalena, Pousada Verbicaro, RPPN, MAD 03; 29 Oct.–4 Nov. 2015; Mermudes and Mattos leg.; Pennsylvania trap; CEMT. – **São Paulo** • 1 spec.; São Miguel Arcanjo, P.E. Carlos Botelho; 24°03′58″ S, 47°59′53″ W; elev. 743 m; 6 Mar. 2012; M. Boutefeu leg.; *Tapirus* feces; CEMT • 1 spec.; same data as for preceding; 24°03′59″ S, 47°59′39″ W; elev. 580 m; 8 Apr. 2012; CEMT • 1 spec.; same data as for preceding; 4°40′01″ S, 47°59′40″ W; elev. 595 m; 9 Apr. 2012; CEMT • 1 spec.; same data as for preceding; 24°03′50″ S, 47°59′23″ W; elev. 747 m; CEMT • 4 specs; same data as for preceding; 11 Jun. 2012; CEMT • 1 spec.; same data as for preceding; 13 Jun. 2012; CEMT • 1 spec.; same data as for preceding; 15 May 2012; CEMT. – **Sergipe** • 2 specs; São Cristóvão; 24 Aug. 2016; M.F. Santos leg.; CEMT.

COLOMBIA – **Antioquia** • 3 specs; Río Negro, Capiro; Abr. 1995; F. Vallejo leg.; CEMT. – **Cundinamarca** • 1 spec.; La Calera; Jul. 2000; J. Noriega leg.; CEMT • 1 spec.; Bogotá; Sep. 1996; J. Noriega leg.; CEMT • 1 spec.; same data as for preceding; Sep. 1998; CEMT • 1 spec.; Nocaima; 5°04′16″ N, 74°22′61″ W; elev. 1100 m; Sep. 2005; J. Noriega leg.; culture of sugar cane; CEMT. – **Meta** • 1 spec.; San. Martín, Tocancipa; elev. 330 m; Abr. 2006; P. López leg.; sabama forest; CEMT • 1 spec.; same data as for preceding; N. Montoya leg.; pitfall; CEMT.

ECUADOR – **Chimborazo** • 1 spec.; Huigra, Chimborazo; elev. 1850 m; 31 Dec. 1997; G. Onore leg.; CEMT • 3 specs; same data as for preceding; 1 Jan. 1998; CEMT. – **El Oro** • 23 specs; Piñas; elev. 1250 m; 1 Sep. 1997; C. Carpio leg.; cow feces; CEMT • 5 specs; same data as for preceding; 2 Sep. 1997; human feces CEMT. – **Loja** • 1 spec.; Río Catamayo; elev. 1500 m; 29 Aug. 1997; C. Carpio leg.; CEMT. – **Morona-Santiago** • 2 specs; Bosque Domono; elev. 1650 m; 22 Jul. 1997; C. Carpio leg.; CEMT • 1 spec.; Vía Plan Milagro-Gral Gutiérrez Km 5; elev. 1500 m; 19 Aug. 1997; C. Carpio leg.; CEMT • 4 specs; same data as for preceding; feces; CEMT • 3 specs; Yunganza; elev. 1500 m; 28 Aug. 1997; C. Carpio leg.; cow feces; CEMT • 1 spec.; Palmeras; elev. 1800 m; 19 Nov. 1994; P. Guardenas leg.; forest; CEMT. – **Napo** • 4 specs; Cosanga; 0°35′36″ S, 77°56′18″ W; elev. 1750 m; 25 Mar. 1996; T. Jaramillo leg.; CEMT • 1 spec.; Vía Hollín-Loreto Km 3; elev. 1100 m; 6 Dec. 1987; A. Cordova leg.; CEMT • 1 spec.; same data as for preceding; Km 25; elev. 1100 m; P. Mendoza leg.; CEMT • 2 specs; same data as for preceding, Km 3; A. Cordova leg.; CEMT • 1 spec.; same data as for preceding; Km 60; R. Figuerda leg.; CEMT • 1 spec.; same data as for preceding; Km 17; M. Peñaherrera leg.; CEMT. – **Pichincha** • 3 specs; Alangasi; 19 Jan. 1988; M.E. Sánchez leg.; CEMT • 2 specs; El Tingo; 5 May 1997; P. Leone leg.; CEMT • 1 spec.; same data as for preceding; 30 Jan. 1988; CEMT • 1 spec.; Mindo; elev. 1500 m; 30 Dec. 1994; P. Salazar leg.; CEMT • 2 specs; same data as for preceding; elev. 1400 m; 8 Jun. 1995; F. Sancho leg.; CEMT • 1 spec.; Quito, Alangasi; 19 Jan. 1988; P. Merdoxa leg.; CEMT • 1 spec.; Río Silanchi; elev. 640 m; 30 Apr. 1991; E. Baus leg.; CEMT • 5 specs; same data as for preceding; Mindo; elev. 1200 m; 17 Jun. 1995; M. Lascano leg.; CEMT • 3 specs; same data as for preceding; elev. 1250 m; 8 Jul. 1995; M. Vallejo leg.; CEMT • 1 spec.; same data as for preceding; 10 Jul. 1995; CEMT • 1 spec.; Pam. Argentin; elev. 1500 m; Apr. 1988; M. Griialua leg.; CEMT. – **Zamora** • 6 specs; Ch Las Peñas; elev. 1000 m; 24 Aug. 1997; C. Carpio leg.; CEMT.

PERU – **Madre de Dios** • 1 spec.; 6 km NE of Mazuko; elev. 380 m; 19 Aug. 2012; Cavichioli *et al.* leg.; CEMT.

VENEZUELA – **Mérida** • 2 specs; Bailadores; Jan. 1984; B. Joffre leg.; CEMT.

Sexual dimorphism

Males with clypeal tubercle larger than that of female; females with metaventrite plate nearly flat.

Collecting information

This species can be collected with light traps and is attracted to equine, bovine, *Tapirus* and human feces (Mesquita *et al.* 2017). Specimens were collected at altitudes ranging from 33 to 1850 metres.

Genus ***Trichaphodius*** Schmidt, 1913

Diagnosis

Length 2.5–6.0 mm. Body oval, elongate, testaceous. Head punctate, clypeus faintly sinuate; frontoclypeal suture finely impressed. Pronotum transverse, punctate; laterally with marginal marginal line; posteriorly with or without marginal line, marginal line might be medially interrupted. Elytra without humeral teeth.

Trichaphodius quadripartitus (Petrovitz, 1973)
Figs 7A, 38A

Aphodius (*Trichaphodius*) *quadripartitus* Petrovitz, 1973: 146.

Trichaphodius quadripartitus – Skelley *et al*. 2007: 7.

Diagnosis

Length 6.0 mm. Body convex, almost glabrous. Head punctate with clypeus truncate, longitudinally gibbous medially; frontoclypeal suture finely impressed. Pronotum convex, without posterior marginal line with punctures of two sizes; larger punctures concentrated on sides, smaller finer punctures densely distributed across surface. Elytra strongly alutaceous with lighter spot at posterior declivity; interstriae weakly convex, alutaceous, finely punctured. Metatibiae with apical and lateral margin fringed by setae progressively longer closer to lateral margin.

Material examined

BRAZIL – **Paraná** • 3 specs; São José dos Linhares, Ser. Mar Br 277, Km 54; 31 Dec. 1986; light; CEMT • 2 specs; same data as for preceding; 30 Jan. 1986; light; CEMT. – **Rio Grande do Sul** • 1 spec.; São Francisco de Paula, Promata; 14–18 Dec. 2009; Grossi *et al.* leg.; CEMT.

Collecting information

Specimens were collected at light.

Sexual dimorphism

Male unknown.

Remarks

Trichaphodius is possibly restricted to the Old World (Dellacasa *et al.* 2001a). *Trichaphodius quadripartitus* may be based on a mislabeled specimen (Skelley *et al.* 2007). Until further studies are conducted with the type material, the species is provisionally retained in *Trichaphodius* (Skelley *et al.* 2007).

Tribe Eupariini Schmidt, 1910

Genus ***Aphotaenius*** Cartwright, 1952

Diagnosis

Length 1.6–1.9 mm. Body oblong-oval, strongly convex, piceous. Head with clypeus denticulate or obtusely rounded angled on each side of medial emargination, anterior margin of clypeus thickened on emargination. Pronotum variably punctate, not fringed by setae. Meso- and metatibia two with distinct transverse carinae and with lateral apical margin with three dentiform processes.

Remarks

Aphotaenius currently has 8 described species distributed across the eastern USA, Brazil, Bolivia, Colombia, Mexico and Venezuela (Skelley & Vaz-de-Mello 2020). For a key to all species of *Aphotaenius* see Skelley & Vaz-de-Mello (2020).

Key to species of *Aphotaenius* from Brazil (adapted from Skelley & Vaz-de-Mello 2020) (Portuguese version in Supp. file 1)

1. Frons with punctures larger than those of clypeus ..... ***A. elegans*** Skelley & Vaz-de-Mello, 2020 (Fig. 20D)
– Frons with punctures similar in size to those of clypeus 2

2. Pronotum with large and small punctures everywhere distributed. Margin of clypeus on each side of emargination obtusely rounded ..... ***A. gaucho*** Skelley & Vaz-de-Mello, 2020 (Fig. 20E)
– Pronotum with large punctures restricted to posterior and lateral margins. Margin of clypeus on each side of emargination acutely obtusely angled ..... ***A. plaumanni*** Cartwright, 1963 (Fig. 20F)

Aphotaenius elegans Skelley & Vaz-de-Mello, 2020
Figs 20D, 38B

Aphotaenius elegans Skelley & Vaz-de-Mello, 2020: 397.

Diagnosis

Length 1.6–2.7 mm. Head with clypeus emarginate, angles lateral to emargination denticulate; punctures of frons larger than those of clypeus. Pronotum with punctures of two sizes uniformly distributed across its surface. Elytral interstriae with two marginal rows of small punctures.

Material examined

BRAZIL – **Maranhão** • 1 spec.; Carolina, Fazenda Cincorá; 17–22 Oct. 2009; F. Limeira-de-Oliveira *et al.* leg.; light; CEMT.

Sexual dimorphism

Males with penultimate ventrite of abdomen narrower than those of females.

Collecting information

Specimens were collected associated with feces of *Mazama* sp. and with light traps (Skelley & Vaz-de-Mello 2020).

Aphotaenius gaucho Skelley & Vaz-de-Mello, 2020
Figs 20E, 38B

Aphotaenius gaucho Skelley & Vaz-de-Mello, 2020: 398.

Diagnosis

Length 2.5 mm. Head with scarce and fine punctures; lateral angles to clypeal emargination rounded. Pronotum with punctures of two sizes; small and big punctures uniformly and densely distributed across pronotal surface. Elytral interstriae with fine punctures.

Material examined

BRAZIL – **Rio Grande do Sul** • 1 spec.; Santa Cruz do Sul, Cerro Alegre; 29°48′19″ S, 52°19′53″ W; 11 Feb. 2012; R. Bohn leg.; secondary forest; bovine feces; CEMT • 2 specs; same data as for preceding; 29°42′17″ S, 52°19′59″ W; 17 Dec. 2022; bovine feces; CEMT.

Sexual dimorphism

Males with penultimate ventrites of abdomen narrower than those of females.

Collecting information

Specimens are attracted to bovine feces (Skelley & Vaz-de-Mello 2020).

Aphotaenius plaumanni Cartwright, 1963
Figs 20F, 38B

Aphotaenius plaumanni Cartwright, 1963: 49–50.

Haroldiataenius plaumanni – Chalumeau 1983b: 2 (lapsus calami).

Diagnosis

Length 2.6–2.7 mm. Head with large punctures; clypeus emarginate, margin obtusely angled on each side of emargination. Pronotum with punctures of two sizes; coarse punctures restricted to posterior and lateral margins; smaller punctures distributed across pronotal surface. Elytral interstriae with discrete punctures.

Material examined

BRAZIL – **Rio Grande do Sul** • 1 spec.; Santa Cruz do Sul, Cerro Alegre; 29°48′17″ S, 52°19′29″ W; 24 Dec. 2011; R. Bohn leg.; forest (trap p9); pitfall; bovine feces; CEMT.

Sexual dimorphism

Males with penultimate ventrite of abdomen narrower than those of females.

Collecting information

Specimens were collected with pitfalls baited with bovine feces (Skelley & Vaz-de-Mello 2020).

Genus ***Arupaia*** Stebnicka, 1999

Diagnosis

Length 5.5–6.0 mm. Body elongate, dark reddish brown. Head wide; clypeus longitudinally wrinkled, strongly gibbous; frontoclypeal suture absent; frons punctate. Pronotum wide; with large and oval punctures; lateral margins straight, explanate and furrowed; posterior margin with deep groove. Elytra with humerus forwardly expanded, apically glabrous; fifth interstriae with anterior tubercle; fifth stria grooved anteriorly. Legs elongate and slender.

Remarks

Arupaia is a monotypic genus currently only known from Brazil (Stebnicka 2009).

Arupaia friedenreichi (Harold, 1870)
Figs 14A–C, 39A

Euparia friedenreichi Harold, 1870: 23.
Iarupea guimaraesi Martínez, 1955: 68.

Arupaia friedenreichi – Stebnicka 1999a: 289.

Diagnosis

Same as for the genus.

Material examined

BRAZIL – **Distrito Federal** • 1 spec.; Planaltina, Embrapa Cerrados; 15°35′54″ S, 47°42′51″ W; 18 Nov. 2005; C. Oliveira leg.; área agrícola; light; CEMT • 1 spec.; same data as for preceding; 2 Nov. 2005; CEMT. – **Minas Gerais** • 2 specs; Ijaci, Fazenda FAEPE; Nov. 2002; Louzada leg.; light; CEMT • 1 spec.; Viçosa; 28 Mar. 2023; E.J. Hambleton leg.; CEMT. – **Rio de Janeiro** • 1 spec.; Nova Friburgo; Jan. 1999; P. Grossi; CEMT • 1 spec.; same data as for preceding; Jan. 2002; E. Grossi and P. Grossi leg.; CEMT. – **Rio Grande do Sul** • 1 spec.; Bagé; 31°18′57″ S,53°59′53″ W; elev. 242 m; 21 Feb. 2017; R.N. Sisti and J.U.P. Corrêa leg.; glycine; CEMT.

Sexual dimorphism

Males with apical spur acuminate, big, inwardly bent, hook like.

Collecting information

Specimens were collected with UV light and in nests of *Solenopsis geminata* (Fabricius, 1804) (Stebnicka 1999**add letter**, 2007a).

Genus ***Ataeniopsis*** Petrovitz, 1973

Diagnosis

Length 2.8–4.0 mm. Body elongate, subparallel-sided, dorsally glabrous, glossy, light reddish testaceous to piceous. Head with transverse wrinkles weakly developed; clypeus with anterior margin slightly sinuate, angles delimiting sinuate area denticulate or obtuse; frons with coarse punctures variably spaced. Pronotum with punctures of two sizes, variably distributed. Elytra glabrous; striae and interstriae variably punctate. Profemur without anterior and posterior lines; anterior margin ends in a translucent process. Abdominal ventrites glossy, strigate or not. Pygidium near anterior margin, near uro-genital opening, glossy and convex.

Remarks

Ataeniopsis comprises 15 species distributed across the Neartic and Neotropical regions (Stebnicka 2003b). For a key to all species see Stebnicka (2003b).

Key to species of *Ataeniopsis* from Brazil (adapted from Stebnicka 2003b) (Portuguese version in Supp. file 1)

1. Pronotum with posterior marginal 2
– Pronotum lacking marginal line posteriorly (Fig. 7E) .....***A. notabilis*** Petrovitz, 1973 (Fig. 7D–F)

2. Distance between clypeal teeth less than half the length of frons (Fig. 8B). Pronotum punctate with large and moderate punctures .....***A. parallelus*** (Petrovitz, 1961) (Fig. 8A–B)
– Distance between clypeal teeth more than half the length of frons. Pronotum punctured by large and inconspicuously fine punctures 3

3. Disc of pygidium glossy, with a few fine punctures ..... ***A. haroldi*** (Steinheil, 1872) (Fig. 8C–D)
– Disc of pygidium somewhat eroded by large and coalescent punctures (Fig. 8F) .....
.....***A. regulus*** (Balthasar, 1947) (Fig. 8E–F)

Ataeniopsis haroldi (Steinheil, 1872) (new record)
Figs 8C–D, 39B

Ataenius haroldi Steinheil & Stroblel, 1872: 556;

Ataenius (*Ataeniopsis*) *haroldi* – Chalumeau 1992: 196.
Ataeniopsis haroldi – Stebnicka 2003b: 104.

Diagnosis

Length 4.2–4.8 mm. Body piceous. Head with clypeus denticulate; weakly emarginate medially; emarginate area with nearly half the length of frons; frontoclypeal suture not visible. Pronotum with posterior marginal line preset; punctures of two sizes, fine and large; fine punctures inconspicuous among the large ones; large punctures closer near lateral margins. Elytra glabrous, glossy; length more than three times that of pronotum. Pygidium convex, glossy with fine punctures.

Material examined

ARGENTINA – **Chaco** • 1 spec.; Parque Nacional Chaco; 12 Jan. 2008; CEMT. – **Mendoza** • 1 spec.; Res. Ñacuñán; Mar. 2002; C.A. Medina leg.; CEMT • 3 specs; Mendoza-San Luis, Desaguadero; 11 Jan. 2005; C. Fortino leg.; light trap; CEMT • 10 specs; Desaguadero; 5 Feb. 2017; G. Arriágada leg.; light; CEMT • 68 specs; Lavalle, Res. Bio. Telteca; 9 Dec. 2002; Arriágada and Diéguez leg.; light trap; CEMT • 1 spec.; Res. Biológica Ñacuñán; Feb. 2012; G. Arriágada leg.; light; CEMT. – **San Luis** • 4 specs; Belgrano, Fundo El Molle; 33°2′23″ S, 66°30′48″ W; elev. 622 m; 7 Feb. 2017; G. Arriágada leg.; CEMT.

BRAZIL – **Mato Grosso** • 1 spec.; Poconé; 23 Jun. 1998; acuri palm tree; light trap; CEMT • 3 specs; Sesc Pantanal; 15 Sep. 2004; light trap; CEMT • 1 spec.; Vila Bela, Margem Guporé; 1 Oct. 1984; Sebastião and Marcolina leg.; light; CEMT. – **Mato Grosso do Sul** • 1 spec.; Aquidauana; S.R. Rodrigues leg.; CEMT • 2 specs; Guia Lopes da Laguna; 25 May 2008; A. Abot leg.; light trap; CEMT. – **Piauí** • 2 specs; Teresina; Nov. 1952–Jan. 1953; A.K. Oliveira leg.; CEMT.

Sexual dimorphism

Males with third abdominal ventrite longer than fourth. Females with body longer than males, with second and fourth ventrite with the same length.

Collecting information

Specimens are attracted to light and can be found in flooded plains and seasonal subtropical forests (Stebnicka 2009).

Ataeniopsis notabilis Petrovitz, 1973
Figs 7D–F, 39B

Ataeniopsis notabilis Petrovitz, 1973: 191. **added**

Ataenius (*Ataeniopsis*) *notabilis* – Chalumeau, 1992: 196 (as synonym of *A. regulus*).
Ataeniopsis notabilis – Stebnicka 2003: 106.

Diagnosis

Length 3.2–4.8 mm. Body reddish testaceous. Head alutaceous; clypeus subtly, but rather widely sinuate; frontoclypeal suture inconspicuous. Pronotum without posterior marginal line; punctate with punctures of two sizes irregularly spaced. Elytra twice as long as pronotum. Abdominal ventrites with extremely small punctures and weakly strigate.

Material examined

BRAZIL – **Piauí** • 4 specs; Teresina, Embrapa CPAMN; 12 Nov. 2011; M. Bevilaqua and R. Querino leg.; CEMT.

Sexual dimorphism

Males with third abdominal ventrite wider than fourth. Females with body longer than males, with second and fourth ventrite of the same width.

Collecting information

Collecting methodology not specified in the literature and material examined.

Ataeniopsis parallelus (Petrovitz, 1961)
Figs 8A–B, 39B

Ataenius parallelus Petrovitz, 1961b: 148.

Ataenius (*Ataeniopsis*) *parallelus* – Chalumeau 1992: 196.
Ataeniopsis parallelus – Stebnicka 2003b: 104.

Diagnosis

Length 2.8–3.0 mm. Body dark red. Head alutaceous, clypeus slightly sinuate with somewhat large denticles; sinuate area less than 1/3 the length of frons; frontoclypeal suture inconspicuous, present as a faint elevated line. Pronotum densely punctate with large and moderate punctures; posteriorly marginate. Elytra length approximately twice as long as pronotum; interstriae punctured by fine and inconspicuous punctures. Pygidium with three to four fine punctures along median carina; anterior margin glossy and convex.

Material examined

BRAZIL – **Amazonas** • Castanho-Careiro, AM-359 Km 39; 3°43′59″ S, 60°20′09″ W; 6–7 Nov. 2010; Rafael *et al.* leg.; light; CEMT.

Sexual dimorphism

Males with third abdominal ventrite wider than fourth. Females with body longer than males, with second and fourth ventrite of the same width.

Collecting information

Specimens were collected with light trap.

Ataeniopsis regulus (Balthasar, 1947)
Figs 8E–F, 39B

Ataenius regulus Balthasar, 1947: 53.
Ataenius bordoni Petrovitz, 1972: 166.
Ataenius abdominalis Petrovitz, 1973: 154.

Ataenius (*Ataeniopsis*) *regulus* – Chalumeau 1992: 196.
Ataeniopsis regulus – Stebnicka 2003b: 105.

Diagnosis

Length 3.2–4.0 mm. Body piceous. Head alutaceous, clypeus with two minute denticles; weakly emarginate medially; emarginate area with approximately half the length of frons. Pronotum with punctures of two sizes, large and minute; large punctures everywhere distributed, intermixed with inconspicuously minute ones; pronotum with posterior marginal line. Elytral length approximately twice that of pronotum; interstriae with small, irregularly spaced punctures. Pygidium disc eroded by group of large coalescent punctures.

Material examined

BRAZIL – **Mato Grosso** • 1 spec.; Trindade, U.B.S.; 1 Oct. 1984; E. Binda leg.; light; CEMT • 1 spec.; same data as for preceding; INPA. – **Roraima** • 5 specs; Alto Alegre, Lavrado; 2°53′45″ N, 60°39′42″ W; elev. 81 m; 5 May 2015; E.G.F. Morais leg.; CEMT • 13 specs; Alto Alegre, Rio Cauamé, Fazenda Jarbas Melo; 3°13′34″ N, 61°09′54″ W; 16 Oct. 2020; R.C.L. Costa and R.B. Silva leg.; light; CEMT • 1 specs.

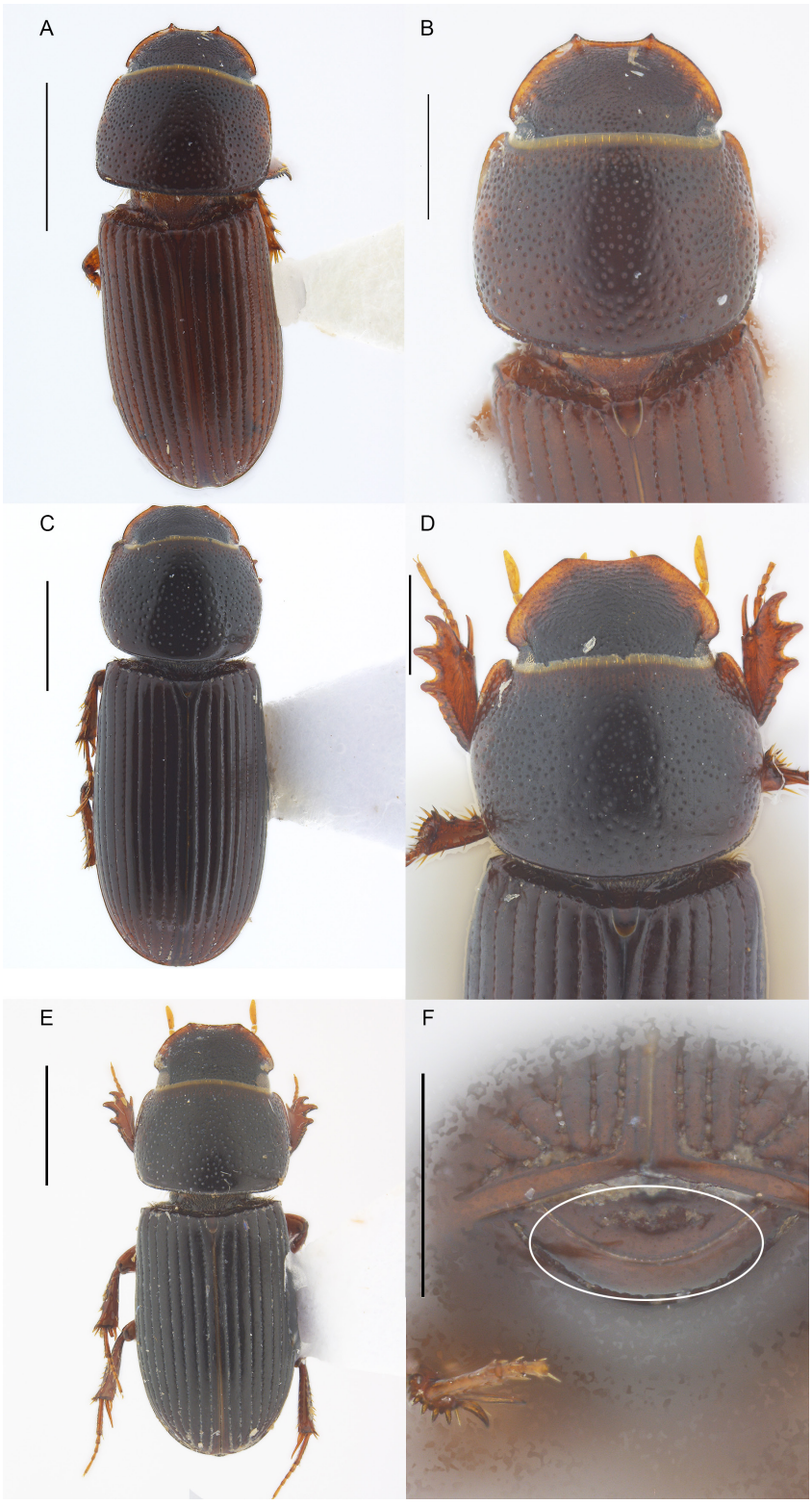

Fig. 8. A–B. *Ataeniopsis parallelus* (Petrovitz, 1961) (CEMT), Castanho-Careiro, Amazonas, Brazil. **A**. Dorsal view. **B**. Head and pronotum in dorsal habitus. **C–D**. *A. haroldi* (Steinheil, 1872) (CEMT), Poconé, Mato Grosso, habitus, dorsal view. **D**. Head and pronotum in dorsal habitus. **E–F**. *A. regulus* (Balthasar, 1947) (CEMT), Trindade, Mato Grosso, Brazil. **E**. Dorsal habitus. **F**. Pygidium (circle indicates coalescent punctures). Scale bars: A, C, E = 1 mm; B, D, F = 0.5 mm.

Amajari, EsEc Maracá, Uraricoera River; 3°20′59″ N, 61°25′22″ W; elev. 83 m; 24 Mar. 2016; A.P.M. Santos *et al.* leg.; CEMT • 3 specs; Ilha de Maracá, Rio Uraricoera, Ilha de Maraca; 2–13 May 1987; J.A. Rafael *et al*. leg.; light trap; CEMT • 19 specs; same date as for preceding; INPA • 25 specs; same data as for preceding; armadilha suspensa [suspended trap]; CEMT INPA • 3 specs; same data as for preceding; 21–30 Nov. 1987; Malaise trap; INPA.

Sexual dimorphism

Males with third abdominal ventrite wider than fourth. Females with body longer than males, with second and fourth ventrite of the same width.

Collecting information

Specimens were collected with UV light traps in open areas, near ponds and coconut groves (Stebnicka 2009). Specimens were found at altitudes up to 81 metres.

Genus ***Ataenius*** Harold, 1867

Diagnosis

Length 2.0–7.0 mm. Body elongate, cylindrical, glabrous or not, light reddish testaceous to piceous. Head variably sculptured, may present wrinkles, punctures or argillaceous coating; clypeus always sinuate medially, margin may be rounded, denticulate or obtuse. Pronotum transverse, glossy, shagreened or with argillaceous coating, variably punctate. Elytra variable, interstriae may be glossy or opaque, glabrous or pilose, convex, carinate or flat, tuberculate or not, shagreened or with argillaceous coating.

Remarks

Ataenius is a cosmopolitan genus comprised of more than 300 species (Stebnicka 2007b). Stebnicka (2007b) presents dorsal habitus images of 187 of the 190 species of *Ataenius* the New World. For more information on the morphological diversity in *Ataenius* and keys for almost all of the Western Hemisphere species the following publications are recommended: Stebnicka (2001c, 2003e, 2004, 2005b, 2006b, 2007b, 2007c) and Stebnicka & Lago (2005).

Key to species groups of *Ataenius* from Brazil (Portuguese version in Supp. file 1)

1. Head with punctures longitudinally elongated; sometimes, lateral punctures joined (Fig. 10B) 2
– Head with rounded, not united punctures 5

2. Body partially or completely covered with argillaceous coating. If body not totally covered with coating then interstriae strongly shagreened, weakly convex ..... ***imbricatus*** group (Fig. 10E)
– Body without coating. Interstriae variable, normally convex and with variable sculpturing 3

3. Clypeus anteriorly smooth. Body broad, oval, not parallel-sided. Large specimens. Specimens from Fernando de Noronha ..... ***scutellaris*** group (in part) (*A. noronhai*)
– Clypeus with sub-rugose granules anteriorly. Body thin, cylindrical, parallel-sided. Small specimens. From Fernando de Noronha or not 4

4. Metatibiae with accessory spine (Figs 9C, 10C). Elytra without humeral tooth .... ***A. pertuga*** Balthasar, 1961
– Metatibiae without accessory spine (Fig. 12E). Elytra with humeral tooth variably developed ... . ***texanus-carinator*** group (Fig. 10A–B)

5. Anterior edge of clypeus, thickened, downward bent and acuminate medially (Fig. 9F) 6

– Anterior edge of clypeus, thickened but neither downward bend nor acuminate medially (Fig. 9B) 9

6. Striae wide, with lateral margins strongly undulated, crenulate; interstriae convex, carinate or tectiform 8
– Striae thin, lateral margins weakly crenulate; interstriae convex or flat but not tectiform or carinate 7

7. Elytra with interstriae on disc with fine punctures, smaller than those on interstriae 7–10. Pronotum with group of extremely close punctures near anterior and posterior angles (Fig. 12B). Metaventrite plate bounded by oblique line of coarse punctures (Fig. 12C) ..... ***nugator*** group (Fig. 12A–C)
– Elytra with interstriae on disc with punctures similar in sizes with punctures of interstriae 7–10. Pronotum without group of punctures near anterior and posterior angles. Metaventrite plate not bounded by line of punctures .....***scutellaris*** group (in part) (Fig. 10E)

8. Posterior angles of pronotum rounded or truncate, not sinuate. Interstriae distinctly carinate or tectiform from anterior to posterior margins of elytra ..... ***complicatus*** group (Fig. 10D)
– Posterior angles of pronotum sinuate. Interstriae weakly elevated near anterior margin, more convex closer to posterior margin .....***perforatus*** group (Fig. 9E–F)

9. Interstriae 8 to 10, near anterior margin, with rows of punctures coarser and closer than other interstriae (Fig. 11D) 10
– Interstriae 8 to 10 with punctures similar to those of other interstriae (Figs 9D, 11F) 11

10. Metaventrite with group of close and coarse punctures near mesocoxa (Fig. 11B) ....***strigicauda*** group (in part)
– Metaventrite without group of close and coarse punctures near mesocoxa ....***strigatus*** group (in part) (*A. impiger*)

11. Apical accessory spine of metatibiae present, acuminate, longer than apical fringe of setae (Fig. 11C) 12
– Apical accessory spine of metatibiae absent or not, if present, then shorter than apical fringe of setae (Fig. 9C) 13

12. Pronotum with dense almost confluent group of large, coarse punctures laterally. Elytra with striae wide, punctate with coarse and rounded punctures; punctures crenating margins of interstriae (Fig. 11F) .....***crenator*** group (Fig. 11E–F)
– Pronotum with scattered coarse and fine punctures laterally. Elytra with striae thinner, punctate with rounded punctures; punctures weakly crenating margins of interstriae .... ***strigicaudus*** group (in part) (*A. picinus*)

13. Abdominal ventrites coarsely punctate .....***aequalis-platensis*** group (Fig. 9A–D)
– Abdominal ventrites finely punctate ..... ***strigatus*** group (in part) (*A. purator*) (Fig. 10F)

Ataenius aequalis-platensis group
Figs 9A–D, 40A

Diagnosis

Length 2.1–6.0 mm. Body cylindrical or oval, weakly convex, glossy, or shagreened, piceous. Head variably punctate; clypeus sinuate, lateral angles rounded or obtuse. Pronotum punctate, puncture sizes variable, normally with two distinct sizes; lateral margins normally fringed with evident setae. Elytra

with striae not deep, finely punctate; interstriae glossy, flat or convex. Ventral surface with setaceous regions, mostly glabrous and glossy. Apical accessory spine of metatibiae fine or absent, if present, always shorter than apical fringe of setae. Abdominal ventrites punctate and weakly strigate anteriorly; punctures coarse, normally near lateral margins, but these can be found across ventrite surface.

Material examined

***Ataenius aequalis* Harold, 1880**
Ataenius aequalis Harold, 1880: 40.
Ataenius insulicola Chapin, 1940: 28.
Ataenius titschacki Balthasar, 1941c: 167.

BRAZIL – **Acre** • 2 specs; Rio Branco; Nov. 2000; M.A. Oliveira leg.; CEMT. – **Amazonas** • 1 spec.; Itacoatiara Fazenda Aruana, Am010, Km 215; 12–15 Jan. 1991; C.S. Motta leg.; UV light; INPA. – **Bahia** • 13 specs; Itamarajú; 16°59′27″ S, 39°25′55″ W; Abr. 2011; C.M.P. Leite leg.; pitfall; CEMT • 1 spec.; same data as for preceding; 17°01′09″ S, 39°28′15″ W; CEMT. – **Distrito Federal** • 1 spec.; Brasília, Fazenda Água Limpa; Nov. 2010; C. Suinaga leg.; CEMT. – **Espírito Santo** • 1 spec.; Venda Nova; Dec. 1999; F.Z. Vaz-de-Mello leg.; CEMT. – **Goiás** • 1 spec.; Rio Verde; Nov. 1995; J. Carlos leg.; CEMT. – **Mato Grosso** • 1 spec.; Res. Papagaio, BR-364 Km 555; 1 Oct. 1984; E. Binda leg.; polo noroeste [northwest pole]; light; INPA • 3 specs; Água Boa, Rancho Araguaia; 13°56′40″ S, 52°6′10″ W; 24 Dec. 2017; Mota leg.; CEMT • 10 specs; Alta Floresta, CEPLAC; 4 Sep. 2012; V. Gonçalvez leg.; human feces; CEMT • 4 specs; same data as for preceding; 4 Jan. 2009; *Tapirus* feces; CEMT • 2 specs; same data as for preceding; 7 Aug. 2009; CEMT • 1 spec.; Alta Floresta; Chácara Recanto das Orquídeas; 3 Oct. 2011; A.B. Petini leg.; CEMT • 8 specs; Chapada dos Guimarães; 11 Dec. 2000; A.F. Ramos leg.; light trap; CEMT • 1 spec.; same data as for preceding; 25 Feb. 2001; CEMT • 1 spec.; same data as for preceding; 15°24′31″ S, 55°45′53″ W; 2 Dec. 2015; A. Frolov and L. Akhmetova leg.; light; CEMT • 1 spec.; same data as for preceding; Casa do Mel; 15°22′53″ S, 55°50′35″ W; elev. 520 m; Dec. 2015; R.V. Nunes *et al.* leg.; light; CEMT • 2 specs; Cotriguaçu, Fazenda São Nicolau; 14 Feb. 2007; O. Peres-Filho leg.; CEMT • 22 specs; same data as for preceding; 15 Dec. 2007; light trap; CEMT • 3 specs; same data as for preceding; 16 Oct. 2007; CEMT • 15 specs; same data as for preceding; 31 Oct. 2007; CEMT • 2 specs; same data as for preceding; 14 Nov. 2007; CEMT • 6 specs; same data as for preceding; 15 Dec. 2007; CEMT • 5 specs; same data as for preceding; Nov. 2007 • 1 spec.; same data as for preceding; 14 Apr. 2008 • CEMT • 1 spec.; same data as for preceding; 9°49′32″ S, 58°15′46″ W; elev. 220 m; 10 Dec. 2009; Vaz-de-Mello leg.; *Ficus* plantation; CEMT • 1 spec.; same data as for preceding; 9°49′09″ S, 58°15′47″ W; CEMT • 5 specs; same data as for preceding; 9°50′19″ S, 58°15′03″ W; 25 Oct. 2014; A. Asenjo leg.; light; CEMT • 1 spec.; same data as for preceding; 28 Oct. 2014; UV light; CEMT • 1 spec.; same data as for preceding; 9°51′18″ S, 58°14′57″ W; elev. 220 m; base camp; 14 Dec. 2009; Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; 9°51′20″ S, 58°14′55″ W; Nov. 2014; R.V. Nunes and A. Asenjo leg.; light; CEMT • 2 specs; same data as for preceding; 30 Oct. 2014; W. Chamorro leg.; black light trap; CEMT • 1 spec.; Cuiabá; 15°35′21″ S, 56°01′46″ W; elev. 183 m; Sep. 2015; R.V. Nunes and B.F. Becker leg.; CEMT • 7 specs; same data as for preceding; Recanto Siriema; 15°35′32″ S, 56°01′38″ W; 4 Nov. 2014; light; CEMT • 1 spec.; Diamantino; Jan. 2001; A.M. Bello leg.; CEMT • 1 spec.; same data as for preceding; Reserve Vale da Solidão; 14°21′29″ S, 56°08′05″ W; 31 Jan. 2009; D.C.T. Oliveira leg.; CEMT • 1 spec.; Alto Rio Arinos; Jan. 2001; E. Furtado leg.; CEMT • 1 spec.; Farinópolis, Fazenda Sudan; 15°15′14″ S, 58°27′20″ W; Jul. 2004; M. Santos-Filhos leg.; watershed Jauru; CEMT • 1 spec.; Porto Estrela, ESEC Serra das Araras; 15°39′20″ S, 57°12′51″ W; elev. 225 m; 12 Oct. 2011; F.Z. Vaz-de-Mello leg.; Cerrado; pitfall; CEMT • 2 specs; same data as for preceding; helipad trail; CEMT • 20 specs; same data as for preceding; Parque Boca do José; 15 Oct. 2011; final trail; Cerrado; CEMT • 1 spec.; same data as for preceding; Estação Ecológica Cerra das Aráras; Nov. 2011; Souza and Gigliotti leg.; CEMT • 1 spec.; Santo Antônio do Leverger, São Vincente da Serra; 15°49′42″ S, 55°25′11″ W; 15–17 Dec. 2010; Tissiani and Vaz-de-Mello leg.; pasture; human

dung; CEMT • 4 specs; Tangará da Serra; 14°38′33″ S, 57°33′18″ W; 19–22 Feb. 2012; A.S. Tissiani leg.; CEMT • 7 specs; same data as for preceding; Fazenda Bahía; 14°37′13″ S, 57°24′50″ W; elev. 428 m; 26–28 Jan. 2012; R.J. Silva leg.; semidecidual forest; pitfall-hum-pig dung; CEMT • 3 specs; same data as for preceding; 14°37′14″ S, 57°25′15″ W; elev. 419 m; 12–14 Jan. 2011; pasture; CEMT • 1 spec.; same data as for preceding; 14°37′4″ S, 57°25′0″ W; elev. 428 m; 26–28 Jan. 2012; CEMT. – **Mato Grosso do Sul** • 1 spec.; Corumbá, Fazenda São Judas, Rio Vermelho; 19°36′43″ S, 56°57′50″ W; Jun. 1999; L. Vieira leg.; CEMT • 1 spec.; Corumbá, RPPN Acurizal; 17°50′13″ S, 57°33′03″ W; 24–26 Jul. 2012; F.R. Tortato leg.; CEMT • 1 spec.; Poconé, Bom Pastor; 15 Dec. 2011; J. Figueiredo leg.; manually; CEMT. – **Minas Gerais** • 1 spec.; Águas Vermelhas; Dec. 1997; A. Bello leg.; CEMT • 1 spec.; same data as for preceding; A. Bello and F.Z. Vaz-de-Mello leg.; CEMT • 2 specs; Bocaiuva, Fazenda Corredor, Arredores do Alojamento; 5 Nov. 1998; M.F. Vasconcelos and Azevedo leg.; CEMT • 2 specs; Cordisburgo, Fazenda Pontinha; Jul. 1994; de Mello leg.; CEMT • 4 specs; Ijací, Faz FAEPE; Nov. 2002; J. Louzada leg.; CEMT • 1 spec.; Ipatinga; Nov. 1991; E. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Sep. 1993; CEMT • 1 spec.; Lavras, Próx Poço Bonito; Dec. 2001; Vaz-de-Mello leg.; CEMT • 3 specs; Paracatu; Mar. 1997; Vaz-de-Mello leg.; CEMT • 4 specs; Recreio; Jan. 2000; Lopes-Andrade and Vaz-de-Mello leg.; CEMT • 6 specs; Três Marias; Jan. 1993; CEMT • 1 spec.; Uberlândia, Campus UFU; 28 Sep. 2005; J. Mendes leg.; CEMT • 1 spec.; Vespasioano; Nov. 1963; A. Machado leg.; CEMT • 3 specs; Viçosa, Campus UFV; Nov. 1997; F. Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; 1994–1995; Louzada *et al.* leg.; pasture; CEMT. – **Pará** • 2 specs. Santarém; fruit culture; CEMT • 1 spec.; Vigia, Fazenda Mangue Seco; 20–22 Jun. 2010; I.S. Araújo and N. Moura leg.; CEMT. – **Paraná** • 2 specs; Entre Rio do Oeste; 26 Dec. 2017; M.E. Maldaner leg.; light; CEMT. – **Pernambuco** • 1 spec.; Salgueiro; May 2012; R.V. Nunes leg.; CEMT • 1 spec.; Miguel Pereira; Jan. 1998; J. Carlos leg.; CEMT • 1 spec.; same data as for preceding; Dec. 2000; CEMT. – **Rondônia** • 1 spec.; Cacaulândia, Fazenda Rancho Grande; Feb. 1997; Vaz-de-Mello leg.; CEMT • 1 spec.; Porto Velho, Rio das Garças, Bom Jesus; 8°49′48″ S, 63°46′45″ W; 11 Apr. 2017; D.C. Santos and K.K.G. Silva leg.; FIT; CEMT. – **Roraima** • 1 spec.; Rio Uraricoera, Ilha de Maraca; 2–13 May 1987; J.A. Rafael *et al.* leg.; suspended trap; CEMT • 1 spec.; same data as for preceding; INPA • 1 spec.; same data as for preceding; 30 Nov. 1987; Rafael *et al.* leg; Malaise trap; INPA.

MEXICO – **Chiapas** • 1 spec.; Palenque; Jun. 2004; F. Nicolalde leg.; CEMT. – **Veracruz** • 3 specs; Los Tuxlas; Oct. 1997; F.Z. Vaz-de-Mello leg.; CEMT.

NICARAGUA – **Masaya** • 1 spec.; Las Flores; J.M. Maes leg.; light trap; CEMT. – **Tachira** • 1 spec.; San Critóbal, Barrio El Lobo; 7 Aug. 1984; B. Joffre leg.; CEMT.

***Ataenius clavatus* Schmidt, 1916**
Ataenius clavatus Schmidt, 1916: 103–104.

BRAZIL – • 1 spec.; Xingu; Oct. 1947; CEMT. – **Mato Grosso** • 1 spec.; Cuiabá, Recanto Siriema; 15°35′32″ S, 56°01′38″ W; 4 Nov. 2014; R.V. Nunes and B.F. Becker leg.; light; CEMT. – **Mato Grosso do Sul** • 1 spec.; Aquidauana; S.R. Rodrigues leg.; CEMT. – **Minas Gerais** • 1 spec.; Águas Vermelhas; Dec. 1998; A. Bello and F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Itumirim; 21°20′24″ S, 44°48′06″ W; 19 Oct. 2016; Vierra *et al.* leg.; light; CEMT. – **São Paulo** • 1 spec.; Barueri; 29 Feb. 1956; K. Lenko leg.; CEMT • 1 spec.; Cerqueira César; Feb. 1995; J. Carlos leg.; CEMT • 1 spec.; Piracicaba; 30 Dec. 1966; C.A. Triplehorn leg.; UV light; CEMT.

***Ataenius clitellarius* Petrovitz, 1973**
Ataenius clitellarius Petrovitz, 1973: 165–166.

BRAZIL – **São Paulo** • 1 spec.; Agudos, Duraflora S.A.; 12 Oct. 1993; C.A.H. Flechtmann leg.; *Pinus caribaensis* var. *bahamensis* stand; control-tent trap (blank); CEMT.

***Ataenius koelleri* Balthasar, 1963**
Ataenius koelleri Balthasar, 1963: 288–289.

BRAZIL – **Bahia** • 1 spec.; Presidente Tancredo Neves; 13°22′ S, 39°19′ W; CEMT. – **Distrito Federal** • 2 specs; Brasilia; elev. 1100 m; Mar. 2001; N. Degallier leg.; light; CEMT. – **Goiás** • 1 spec.; Rio Verde; Nov. 1995; J. Carlos leg.; CEMT. – **Mato Grosso** • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 9°50′19″ S, 58°15′03″ W; 25 Oct. 2014; A. Asenjo leg.; light; CEMT • 2 specs; same data as for preceding; UV light; CEMT • 1 spec.; Cuiabá, Campus UFMT; Nov. 2009; R. Miyazaki leg.; CEMT • 1 spec.; Novo Mundo, P.E. Cristalino; 9°27′46″ S, 55°48′58″ W; Nov. 2012; V. Magalhães leg.; pitfall; CEMT • 2 specs; Santo Antônio do Leverger, Águas quentes; 23 Nov. 2016; A. Frolov and M. Cupello leg.; UV light; CEMT • 1 spec.; São Vincente da Serra, Campus UFMT; 15°49′42″ S, 55°25′11″ W; elev. 900 m; 21–23 May 2012; Tissiani and Vaz-de-Mello leg.; human dung; CEMT • 1 spec.; Tangará da Serra; 14°38′33″ S, 57°33′18″ W; 19–22 Feb. 2012; A.S. Tissiani leg.; CEMT. – **Pernambuco** • 2 specs; Igarassu-RECD; 11 May 2007; Silva *et al.* leg.; CEMT. – **Rondônia** • 4 specs; 62 km SW of Ariquemes nr Fznd Rancho Grande; 8–20 Nov. 1994; J. Eger and C. O'Brien leg.; black light; CEMT.

***Ataenius lenkoi* Petrovitz, 1973**
Ataenius lenkoi Petrovitz, 1973: 177–178.

BRAZIL – **Bahia** • 1 spec.; Barreiras; Oct. 1991; light trap; CEMT • 1 spec.; Ubaíra; 13°8′47″ S, 39°40′34″ W; Nov. 2011; C.M.P. Leite leg.; pitfall; CEMT. – **Distrito Federal** • 2 specs; Brasília; elev. 1100 m; Jan. 2001; N. Degallier leg.; CEMT • 1 spec.; same data as for preceding; Feb. 2001; light; CEMT • 2 specs; same data as for preceding; Jan. 2003; CEMT • 2 specs; Planaltina, Fazenda Sem Três Pinheiros; 15°36′38″ S, 47°30′16″ W; 9 Dec. 2017; Y. Ferreira leg.; soybean plantation; human feces; pitfall; CEMT. – **Goiás** • 5 specs; Niquelândia; Oct. 1993; light trap; CEMT • 1 spec.; Rio Verde; Nov. 1995; J. Carlos leg.; CEMT • 3 specs; same data as for preceding; Jun. 1997; CEMT. – **Maranhão** • 2 specs; Caxias, Reserva Ecol. Inhamun, Povoado Coités; 4°54′43″ S, 43°25′30″ W; 28–29 Dec. 2012; M.R.A. Vieira-Neta leg.; pitfall; CEMT • 2 specs; Mirador, P.E. Mirador, Base Geraldina; 20–24 Dec. 2006; R.O. Souza and J.C. Silva leg.; light; CEMT • 1 spec.; same data as for preceding; 27 Nov. 2008; M.B. Aguiar-Nelto and A.L. Costa leg.; light; CEMT. – **Mato Grosso** • 3 specs; Chapada dos Guimarães; 12 Dec. 2000; A.F. Ramos leg.; light trap; CEMT • 2 specs; same data as for preceding; 15°24′31″ S, 55°45′53″ W; 2 Dec. 2015; A. Frolov and L. Akhmetova leg.; light; CEMT • 1 spec.; Casa do Mel; 15°22′53″ S, 55°50′35″ W; elev. 520 m; Dec. 2015; R.V. Nunes *et al.* leg.; CEMT • 1 spec.; Fazenda Jardim; 2 Feb. 2013; V.C. Jorge leg.; CEMT • 1 spec.; same data as for preceding; 10 Nov. 2012; CEMT • 4 specs; same data as for preceding; 13 Oct. 2012; CEMT • 1 spec.; same data as for preceding; 26 May 2012; CEMT • 1 spec.; Fazenda Jardim; 28 Apr. 2012; CEMT • 5 specs; same data as for preceding; 29 Sep. 2012; CEMT • 1 spec.; same data as for preceding; Fazenda Morro das Lajes; 10 Apr. 1983; S. Marcolino leg.; CEMT • 1 spec.; Fazenda Toa-Toa; 15°20′31″ S, 55°51′17″ W; elev. 300 m; 20 Dec. 2012; M.D. Gimo leg.; pitfall; CEMT • 1 spec.; same data as for preceding; Sep. 2011; R.V. Nunes leg.; pasto (próx mirante); CEMT • 1 spec.; Conquista do Oeste; Nov. 2012; M.A. Carvalho leg.; CEMT • 1 spec.; Cotriguaçú, Fazenda São Nicolau; Nov. 2007; O. Peres-Filho leg.; light; CEMT • 1 spec.; Diamantino; Jan. 2001; A.M. Bello leg.; CEMT • 1 spec.; Poconé; 28 Feb. 1998; forest; kight trap; CEMT • 1 spec.; same data as for preceding; Fazenda Conceição; 16°19′41″ S, 56°30′21″ W; 23–31 Mar. 2011; M.B. Pessôa leg.; human feces; CEMT • 1 spec.; Porto Estrela, E.E. Serra das Araras; 15°39′19″ S, 57°12′50″ W; 21 Nov. 2017; R.J.P. Machados and R. Nunes leg.; heliporto; light; CEMT • 1 spec.; Primavera do Leste; 10 Jun. 2010; CEMT • 1 spec.; same data as for preceding; Ilha Grande Farm; 15°49′83″ S, 54°12′82″ W; Feb. 2013; A.S. Tissiani leg.; manually; CEMT • 8 specs; Tangará da Serra; 14°38′33″ S, 57°33′18″ W; 19–22 Feb. 2012; A.S. Tissiani leg.; CEMT • 1 spec.; same data as for preceding; Fazenda Bahía; 14°37′04″ S, 57°25′00″ W; elev. 480 m; 26–28 Jan. 2012; R.J. Silva leg.; pasture; pitfall cow; CEMT • 1 spec.; Trindade, U.B.S.; 1 Oct. 1984; E. Binda leg.; polo noroeste; light; INPA. – **Mato Grosso do Sul** • 3 specs; Corquinho Quinta do Sol; 19°49′57″ S, 54°49′45″ W; Feb.

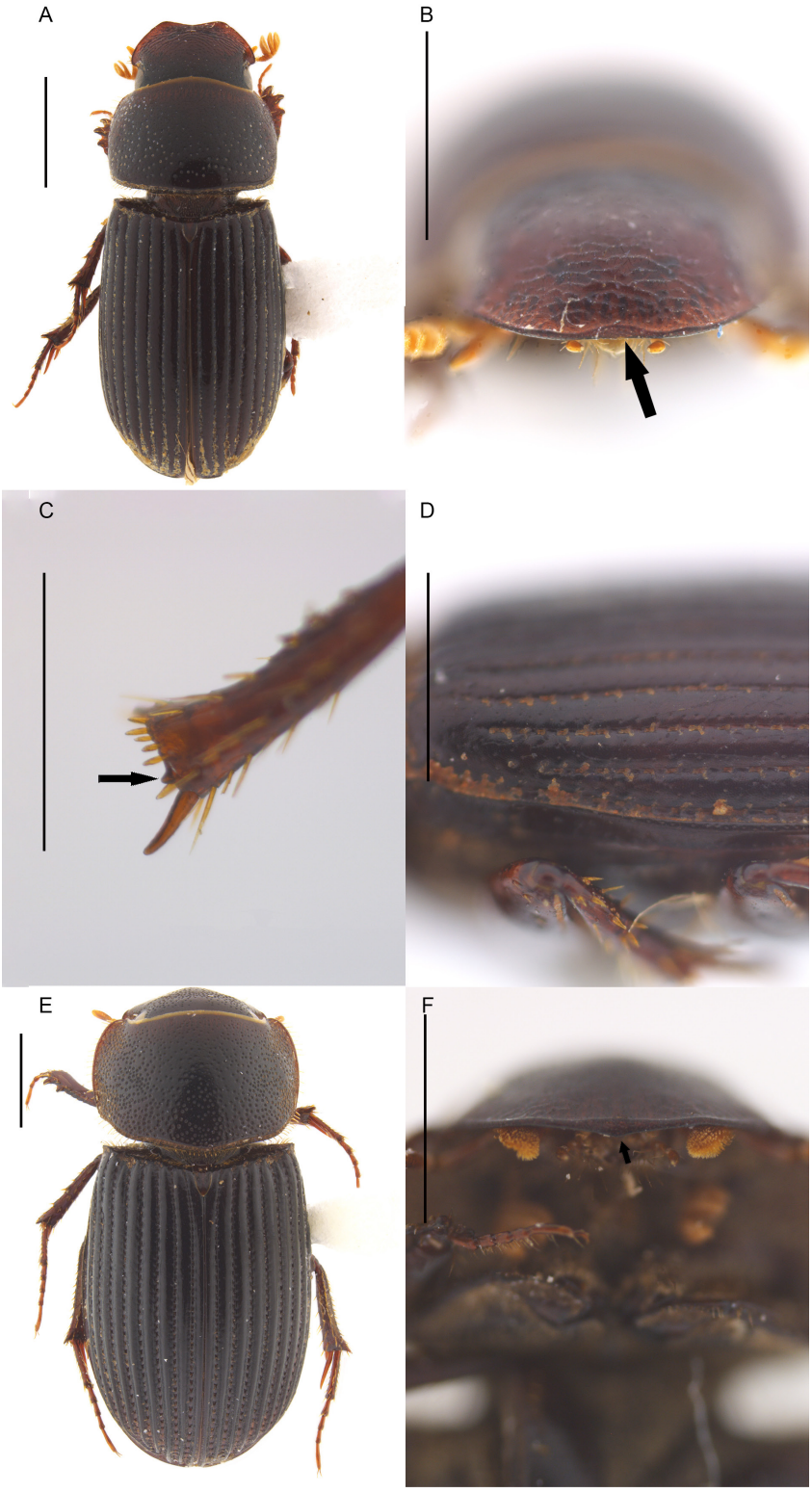

Fig. 9. A–D. *Ataenius platensis* Harold, 1880 (CEMT), Itacoatiara, Amazonas, Brazil. **A**. Dorsal habitus. **B**. Head, frontal view (arrow indicates clypeal margin). **C**. Left metatibia (arrows indicates accessory apical spine). **D**. Elytra, lateral view. **E–F**. *A. opatrinus* Harold, 1867 (CEMT), Venda Nova do Imigrante, Espírito Santo, Brazil. **E**. Dorsal habitus. **F**. Head, frontal view (arrow indicates clypeal margin). Scale bars = 1 mm.

2011; L.O. Bavutii leg.; CEMT • 3 specs; Guia Lopes da Laguna; 15 Nov. 2007; A. Abot leg.; light trap; CEMT • 1 spec.; Selvíria, UNESP farm.; C.A.H. Flechtmann leg.; *Brachiaria decumbens* pasture; ex Guzerá bovine dropping; CEMT. – **Minas Gerais** • 2 specs; Águas Vermelhas; Dec. 1997; A. Bello and Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; Dec. 1998; CEMT • 1 spec.; Buenópolis, P.E. Serra Cabral; 17°54′48″ S, 44°12′50″ W; 17 Apr. 2008; M.F. Souza leg.; human dung; CEMT • 2 specs; same data as for preceding; 17°55′13″ S, 44°14′21″ W; CEMT • 2 specs; same data as for preceding; 17°55′18″ S, 44°17′48″ W; CEMT • 1 spec.; Conceição dos Ouros, Rio Sapucaí; Jan. 2003; A.G.P Neto leg.; CEMT • 1 spec.; Ingaí, Reserva Boqueirão, UNILAVRAS; 22 Oct. 2016; J. Mariano leg.; CEMT • 1 spec.; Itumirim; 21°20′24″ S, 44°48′06″ W; 19 Oct. 2016; Vieira *et al.* leg.; light; CEMT • 2 specs; Lavras-Ingaí, Próx Quedas do Rio Bonito; 21 Oct. 2016; CEMT • 2 specs; Lavras; 21 Oct. 2016; Silva *et al.* leg.; manually CEMT • 1 spec.; same data as for preceding; 21°18′16″ S, 44°58′01″ W; P 19; CEMT • 1 spec.; same data as for preceding; 21°20′21″ S, 44°58′42″ W; 22 Mar. 2008; M.R. Santos and D.L.H. Takahashi leg.; CEMT • 1 spec.; same data as for preceding; 21°20′21″ S, 44°58′43″ W; CEMT • 2 specs; same data as for preceding; 21°20′03″ S, 44°58′30″ W; C 28; CEMT • 1 spec.; same data as for preceding; 21°20′6″ S, 44°58′20″ W; C 54; CEMT • 1 spec.; Lavras, Próx Poço Bonito; Dec. 2001; Vaz-de-Mello leg.; CEMT • 3 specs; Paracatu; Mar. 1997; S. Lourengo jr leg.; CEMT • 1 spec.; Santa Barbara; 21 Oct. 1994; J.C. Zanuncio leg.; CEMT • 1 spec.; Santana do Riacho, PN Serra do Cipó, base camp; elev. 1500 m; Jan. 2001; F.Z. Vaz de Mello leg.; CEMT • 1 spec.; Três Marias; Dec. 1991; CEMT • 1 spec.; Uberlândia, Campus UFU; 26 Jun. 2005; CEMT. – **Tocantins** • 1 spec.; Porto Nacional; Jun. 2003; J.C. Oliveira leg; Col 1/1 n 1S; CEMT.

PARAGUAY – **Gran Asunción** • 1 spec.; 30 Nov. 1989; G. Arriágada leg.; CEMT.

***Ataenius platensis* (Blanchard,** 1846)
Oxyomus platensis Blanchard, 1846: 185.
Ataenius integer Harold, 1868: 86.
Ataenius anticus Fall, 1930: 105.
Ataenius granchacoensis Balthasar, 1939: 29.
Ataenius histrionicus Balthasar, 1947: 49.
Ataenius heyrovskyi Balthasar, 1960: 5.
Ataenius degallieri Chalumeau, 1990: 304.

ARGENTINA – **San Luis** • 1 spec.; Dpto. Belgrano, Fdo. El Molle; 18 Feb.–8 Mar. 2013; G. Arriágada leg.; human feces; pitfall; CEMT. – **Tucumán** • 2 specs; Tucumán; Feb. 1959; L. Golbach leg.; CEMT.

BOLIVIA – **Santa Cruz** • 1 spec.; Buena Vista env.; 27–29 Nov. 1998; V. Tichy leg.; CEMT • 1 spec.; Chiquitos, 20 km NE of Santiago de Chiquitos; 18°08′45″ S, 59°16′45″ W; elev. 215 m; Nov. 2008; W.D. Edmonds and T. Vidaurre leg.; human feces; CEMT.

BRAZIL – **Acre** • Assis Brasil; 10°35′44″ S, 69°57′11″ W; elev. 170 m; 21 Sep. 2016; Ortiz and Borges leg.; wild environment; light trap (CDC); CEMT • 4 specs; Rio Branco, Universidade Federal de Rio Branco, Parque Zoobotânico; Feb. 1997; Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; Nov. 2000; M.A. Oliveira leg.; CEMT. – **Amazonas** • 4 specs; Itacoatiara, Fazenda Aruana, Am010, Km 215; 12–15 Jan. 1991; C.S. Motta *et al.* leg.; UV light; INPA • 8 specs; same data as for preceding; C.S. Motta, H. Mesquita and R. Andreazze leg.; INPA • 23 specs; same data as for preceding; 13–16 Feb. 1991; C.S. Motta, R. Andreazze and V. Kawazoe leg.; UV light; INPA • 1 spec.; same data as for preceding; 13–16 Mar. 1991; C.S. Motta, F.J.A. Peralta and B. Rochin-Teles leg.; CEMT • 8 specs; same data as for preceding; INPA • 4 specs; same data as for preceding; 13–15 May 1991; C.S. Motta *et al.* leg.; UV light; INPA • 4 specs; Manaus; 11 Apr. 1962; Corq leg.; INPA • 7 specs; same data as for preceding; 22 Aug. 1977; INPA • 1 spec.; same data as for preceding; Sítio São José, C. Nova V.; 27 Sep. 1992; M.G.V.A.O. Barvosa leg.; CEMT • 1 spec.; Manaus, Reserva Ducke; 4 Jun. 1976; Eduardo leg.;

INPA • 1 spec.; Manaus, B. Raiz; 2 May 1976; Eduardo leg.; INPA • 4 specs; Manaus, B. de S. Francisco; 16 Jul. 1962; Eduardo leg.; INPA • 1 spec.; Lago de Janaucá; 30 Aug. 1962; INPA • 1 spec.; São Gabriel da Cachoeira, Querari Pelotão; 1°05′ N, 69°51′ W; 7–23 Apr. 1993; C.S. Motta *et al.* leg.; CEMT. – **Bahia** • 3 specs; Barreiras, 150 km W of Barreiras; Jan. 2003; P.A. Schmidt leg.; CEMT • 7 specs; same data as for preceding; Aug. 2002; CEMT • 1 spec.; Barreiras, Dist Placas; 11°49′ S, 46°07′ W; Jan. 2004; P.A. Schmidt leg.; CEMT • 2 specs; same data as for preceding; Fazenda Girassol; 11°50′ S, 46°10′ W; Feb. 2010; R.V. Nunes leg.; human feces; pitfall; CEMT • 1 spec.; Caetité, C. Urbn Lagoa Real-INB; 8–16 Jan. 2000; Nessian and Baptista leg.; light trap; CEMT • 1 spec.; Caravelas; 20 Jan. 1997; Anjos and Silveira leg.; CEMT • 4 specs; same data as for preceding; 25 Mar. 1997; CEMT • 1 spec.; same data as for preceding; Mar. 1996; R. Diniz leg.; CEMT • 5 specs; Cruz das Almas; Jan. 2005; A.F. Brito leg.; CEMT • 1 spec.; Itamaraju; 17°00′04″ S, 39°26′01″ W; Apr. 2011; C.M.P. Leite leg.; pitfall; CEMT • 9 specs; same data as for preceding; 17°01′09″ S, 39°28′15″ W; Apr. 2011; CEMT • 1 spec.; same data as for preceding; 15°15′29″ S, 39°55′31″ W; Nov. 2011; CEMT • 1 spec.; same data as for preceding; 15°15′51″ S, 39°57′52″ W; CEMT • 8 specs; same data as for preceding; Matriz; 2011; CEMT • 2 specs; Mucuri; 21 Jan. 1997; Anjos and Silveira leg.; CEMT • 3 specs; Porto Seguro, RPPN Veracel Mussununga; 11 Nov. 2004; J.N.C. Louzada leg.; CEMT • 7 specs; Presidente Tancredo Neves; 13°22′56″ S, 30°20′27″ W; Jan. 2011; C.M.P. Leite leg.; pitfall; CEMT • 1 spec.; same data as for preceding; 13°22′ S, 39°19′ W; CEMT • 2 specs; same data as for preceding; 13°24′32″ S, 39°20′05″ W; CEMT • 7 specs; Ubaíra; 13°08′47″ S, 39°40′34″ W; Nov. 2011; CEMT • 3 specs; Wenceslau Guimarães, Matriz; 13°41′21″ S, 9°21′52″ W; elev. 146 m; CEMT. – **Ceará** • 2 specs; Ubajara, P.N. Ubajara, Cachoeira Cafundó; 3°50′12″ S, 40°54′35″ W; elev. 783 m; 15 Feb. 2013; D.M. Takiya and A.P.M. Santos leg.; Pennsylvania trap; CEMT • 1 spec.; Ubajara, P.N. Ubajara, Portão Neblina; 3°50′18″ S, 40°53′54″ W; elev. 849 m; 14 Feb. 2013; D.M. Takiya and A.P.M. Santos leg.; light; CEMT • 7 specs; Ubajara, P.N. Ubajara, Trilha da Samambaia; 3°50′20″ S, 40°53′55″ W; elev. 850 m; 17 Feb. 2013; D.M. Takiya leg.; light; CEMT • 14 specs; same data as for preceding; Vaz-de-Mello and Grossi leg.; CEMT • 1 spec.; same data as for preceding; Trilha Araticum, Rio Das Mina; 3°50′21″ S, 40°54′23″ W; elev. 880 m; 13 Feb. 2013; D.M. Takiya and A.P.M. Santos leg.; plus light; CEMT. – **Distrito Federal** • 1 spec.; Brasília, Lago Norte; 1 Mar. 1999; Fábio leg.; CEMT • 1 spec.; Brasília; elev. 1100 m; Jan. 2001; N. Degallier leg.; CEMT • 3 specs; same data as for preceding; light; CEMT • 2 specs; same data as for preceding; Feb. 2001; CEMT • 89 specs; Brasília, Faz Água Limpa; Nov. 2010; C. Suinaga leg.; CEMT • 2 specs; same data as for preceding; 15°56′40.2″ S, 47°55′38.9″ W; 10 Dec. 2017; Y. Ferreira leg.; pasture; pitfall fezes de porco; CEMT • 4 specs; Planaltina, Embrapa Cerrados; 15°35′52″ S, 47°43′10″ W; 4 Dec. 2017; Y. Ferreira leg.; soy; human feces; pitfall; CEMT. – **Espírito Santo** • 4 specs; Linhares, R.F.C.V.R.D.; Jun. 1988; J.S. Santos leg.; CEMT • 6 specs; same data as for preceding; Reserva Natural da Vale; Nov. 1988; J.S. Santos leg.; CEMT • 12 specs; same data as for preceding; Sooretama; Dec. 1988; CEMT • 1 spec.; Venda Nova do Imigrante, Clube; 20°20′05″ S, 41°08′18″ W; Jan. 2010; Vaz-de-Mello leg.; CEMT • 2 specs; Venda Nova do Imigrante, Vila Santa Cruz; 4–12 Jan. 2018; Falqueto and Vaz-de-Mello leg.; CEMT • 1 spec.; Venda Nova do Imigrante; Oct. 1998; Falqueto and Vaz-de-Mello leg.; CEMT. – **Goiás** • 1 spec.; Joanópolis, Chácara São José; 27 Feb. 2015; E. Santana leg.; CEMT • 1 spec.; Luziânia; Nov. 1975; A. Bello leg.; CEMT • 13 specs; Rio Verde; Nov. 1995; J. Carlos leg.; CEMT • 1 spec.; same data as for preceding; Nov. 1997; CEMT. – **Maranhão** • 2 specs; Chapadinha; 4°51′50″ S, 43°20′51″ W; 12 May 2012; C.G. Silva leg.; CEMT • 2 specs; Maranhão, Mirador, P.E. Mirador, Base Geraldina; 20–24 Dec. 2006; R.O. Souza and A.L. Silva leg.; CEMT • 1 spec.; same data as for preceding; 27 Nov. 2008; M.B. Aguiar-Neto and A.L. Costa leg.; light; CEMT • 4 specs; São Luís, UEMA, Aléia; Feb. 2009; M.C. Batista leg.; CEMT. – **Mato Grosso** • 1 spec.; Água Boa, Bairro Operário; Dec. 2017; Mota and Schutz leg.; CEMT • 7 specs; same data as for preceding; Rancho Araguaia; 13°56′40″ S, 52°06′10″ W; 24 Dec. 2017; Mota and Schutz leg.; CEMT • 1 spec.; Alta Floresta; 28 Nov. 1988; Bello leg.; CEMT • 6 specs; same data as for preceding; CEPLAC; 4 Sep. 2009; V. Gonçalves leg.; inside *Tapirus* feces; CEMT • 2 specs; same data as for preceding; human feces; CEMT • 1 spec.; same data as for preceding; Inter. Vôo; CEMT • 1 spec.; same data as for preceding;

pitfall; CEMT • 3 specs; same data as for preceding; 4 Sep. 2010; human feces; CEMT • 12 specs; Chacara Recanto das Orquídeas; 3 Oct. 2011; A. Petini-Bevell leg.; CEMT • 1 spec.; same data as for preceding; 7 Aug. 2012; CEMT • 1 spec.; Barão de Melgaço, Centro; 1 Apr. 2012; R. Marco leg.; manually; CEMT • 1 spec.; Campo Verde, Fazenda Santa Luzia; 15°19′18″ S, 54°52′23″ W; elev. 668 m; 9 May 2012; K. Peña leg.; CEMT • 1 spec.; Chapada dos Guimarães; 11 Dec. 2000; A.F. Ramos leg.; light trap; CEMT • 1 spec.; same data as for preceding; Fazenda Jardim; 7 Jul. 2012; V.C. Jorge leg.; CEMT • 1 spec.; same data as for preceding; 21 Jul. 2012; CEMT • 1 spec.; same data as for preceding; 29 Sep. 2012; CEMT • 1 spec.; same data as for preceding; 19 Jan. 2013; CEMT • 1 spec.; Chapada dos Parecis, 30 km N of Uirapuru; 14°17′ S, 59°15′ W; Dec. 2002; A. Foucart leg.; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 15 Dec. 2007; Peres-Filho leg.; light trap 03; CEMT • 2 specs; same data as for preceding; 15 Dec. 2007; CEMT • 3 specs; same data as for preceding; 31 Oct. 2007; light trap; CEMT • 1 spec.; same data as for preceding; 9°49′08″ S, 58°15′40″ W; 19–24 Oct. 2012; F.Z. Vaz-de-Mello leg.; PPBio P1; CEMT • 1 spec.; same data as for preceding; 9°51′18″ S, 58°14′57″ W; elev. 220 m; 14 Dec. 2009; F.Z.Vaz-de-Mello leg.; base camp; light; CEMT • 2 specs; same data as for preceding; 9°51′ S, 58°15′ W; Nov. 2010; F.Z. Vaz-de-Mello leg.; CEMT • 2 specs; same data as for preceding; 9°51′20″ S, 58°14′55″ W; Nov. 2014; R.V. Nunes and A. Asenjo leg.; light; CEMT • 1 spec.; same data as for preceding; Fazenda São Nicolau; Nov. 2007; O. Peres-Filho leg.; light; CEMT • 1 spec.; same data as for preceding; 15 Oct. 2007; light trap; CEMT • 2 specs; same data as for preceding; 31 Oct. 2007; white light trap 05; CEMT • 3 specs; same data as for preceding; 31 Oct. 2014; W. Chamorro leg.; white light trap; CEMT • 1 spec.; same data as for preceding; 9°50′24″ S, 58°15′10″ W; E. Sanhudo leg.; primary forest; CEMT • 2 specs; Cotriguaçu, Fazenda São Nicolau; Oct. 2014; R. Stofel leg.; CEMT • 1 spec.; Cuiabá; 15°16′45″ S, 56°00′06″ W; 7 Dec. 2015; A. Frolov and L. Akhmetova leg.; CEMT • 2 specs; Cuiabá; Boa Esperança; Dec. 2009; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; Oct. 2016; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; CEMT • 11 specs; Cuiabá; Campus UFMT; Nov. 2009; R. Miyazaki leg.; CEMT • 7 specs; same data as for preceding; 9 Oct. 2016; A. Frolov leg.; UV light; CEMT • 1 spec.; Cuiabá, Fazenda Santhidi; 15°23′06″ S, 56°06′53″ W; A.F. Oliveira and L.R. Silva leg.; pitfall-banana; CEMT • 1 spec.; same data as for preceding; Jardim Brasil; 15 May 2012; B.S. Neves leg.; manually; CEMT • 3 specs; same data as for preceding; Recanto Siriema; 15°35′32″ S, 56°01′38″ W; 4 Nov. 2014; R.V. Nunes and B.F. Becker leg.; light; CEMT • 1 spec.; same data as for preceding; Terro Nova; 3 Jan. 2012; V. Henrique leg.; manually; CEMT • 4 specs; Diamantino, Alto Rio Arinos; Jan. 2001; E. Furtado leg.; CEMT • 1 spec.; Farinópolis, Fazenda Água Limpa; 15°16′14″ S, 58°32′11″ W; Dec. 2004; M. Santos-Filho leg.; Watershed Jauru; CEMT • 1 spec.; same data as for preceding; Fazenda Sudan; 5°15′14″ S, 58°27′20″ W; CEMT • 1 spec.; Indiavai, Fazenda Nova Canaã; 15°15′52″ S, 58°42′59″ W; Jan. 2004; M. Santos-Filho leg.; Watershed Jauru; CEMT • 1 spec.; Lucas do Rio Verde; 2 Nov. 2011; B.F. Camera leg.; CEMT • 8 specs; Nova Ubitatã, ESEC Ronuro; 13°06′43″ S, 54°26′37″ W; 2 Mar. 2017: L.O.F.A. Nunes leg.; Watershed Jauru; CEMT • 2 specs; Poconé, Base UFMT; 16°29′58″ S, 56°24′49″ W; Mar. 2012; M. Rossini leg.; CEMT • 1 spec.; Poconé, Centro; 19 Dec. 2011;V. Henrique leg.; manually; CEMT • 2 specs; Poconé, Mata; 24 Jun. 1998; light trap; CEMT • 1 spec.; Poconé; Jul. 2000; J. Lopes leg.; CEMT • 4 specs; Recanto Siriema; 15°35′32″ S, 56°01′38″ W; 4 Nov. 2014; R.V. Nunes and B.F. Becker leg.; light; CEMT • 1 spec.; Santa Carmem, Fazenda São Vicente; 11°58′12″ S, 55°16′39″ W; elev. 349 m; 3 May 2014; K. Peña leg.; field; CEMT • 1 spec.; Sesc Pantanal; 14 May 2002; light trap; CEMT • 1 spec.; same data as for preceding; 4 Jul. 2002; CEMT • 1 spec.; same data as for preceding; 5 Jul. 2003; CEMT • 6 specs; Tangara da Serra; 12 Feb. 2012; B.F. Camera leg.; CEMT • 4 specs; same data as for preceding; 14°38′33″ S, 57°33′18″ W; 19–22 Feb. 2012; A.S. Tissiani leg.; CEMT • 4 specs; same data as for preceding; Fazenda Três Rios; 14°21′ S, 57°42′ W; elev. 592 m; Feb. 2008; R.J. Silva leg.; Cerrado; pitfall sem isca; CEMT. – **Mato Grosso do Sul** • 1 spec.; Aquidauana; S.R.R. Rodrigues leg.; CEMT • 6 specs; Bodoquena, Fazenda Californea; 20°41′02″ S, 56°51′40″ W; Mar. 2001; L.O. Bavutti leg.; fligth intercept; CEMT • 2 specs; Campo Grande; 1990–1992; I. Biachin leg.; CEMT • 3 specs; Cassilândia; Jan. 2014; R.V. Nunes and L. Sawaris leg.; semidecidual forest; human feces; pitfall; CEMT • 1 spec.;

Corquinho Quinta do Sol; 19°49′57″ S, 54°49′45″ W; Feb. 2011; L.O. Bavutti leg.; flight intercept; CEMT • 1 spec.; Corumbá, Serra do Amolar; Apr. 2011; C. Aoki leg.; CEMT • 1 spec.; Dourados, Mata do Azulão; 22°12′40″ S, 54°55′06″ W; elev. 450 m; 13–16 Dec. 2010; F.Z. Vaz-de-Mello leg.; manually; CEMT • 1 spec.; Nova Andradina, Usina Santa Helena; 21°59′32″ S, 53°26′28″ W; elev. 360 m; 18 Oct. 2012; G. Coutinho leg.; CEMT. – **Minas Gerais** • 1 spec.; Águas Vermelhas; Dec. 1997; A. Bello; CEMT • 10 specs; same data as for preceding; Dec.; 1997; A. Bello and F.Z. Vaz-de-Mello leg.; CEMT • 2 specs; Araponga, Pico do Boné; 28–29 Dec. 2000; E. Stehling leg.; CEMT • 2 specs; Conceição dos Ouros, Rio Sapucaí; Jan. 2003; Almeida and G.P. Neto leg.; CEMT • 2 specs; Cordisburgo, Fazenda Pontinha; Jul. 1994; De Mello leg.; CEMT • 1 spec.; same data as for preceding; Jan. 1996; CEMT • 1 spec.; same data as for preceding; Jan. 1999; CEMT • 1 spec.; Coxambu; Dec. 1979; A. Bello leg.; CEMT • 1 spec.; same data as for preceding; Dec. 1990; CEMT • 1 spec.; Diamantina; 23 Feb.–3 Mar. 2001; N. Degallier leg.; CEMT • 11 specs; Ijací, Faz FAEPE; Nov. 2002; J. Louzada leg.; CEMT • 6 specs; Ipatinga; 30 Apr. 1991; light trap; CEMT • 2 specs; same data as for preceding; Nov. 1991; E. Grossi; CEMT • 1 spec.; same data as for preceding; Sep. 1993; E. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Dec. 1993; P. Grossi and E. Grossi leg.; CEMT • 15 specs; Itumurim; 21°20′24″ S, 44°48′06″ W; 19 Oct. 2016; Viera, F.Z. Vaz-de-Mello and J. Louzada leg.; CEMT • 1 spec.; Lavras; 21°18′16″ S, 44°58′01″ W; CEMT • 1 spec.; same data as for preceding; 21°18′52″ S, 44°59′33″ W; 20 Jan. 2008; M. Rocha and D.L.H. Takahashi leg.; CEMT • 13 specs; Lavras, Próx Poço Bonito; Dec. 2001; Vaz-de-Mello leg.; CEMT • 1 spec.; Lavras, Ponte Nova; 23 Oct. 1979; Planosulcar leg.; CEMT • 1 spec.; same data as for preceding; 30 Oct. 1979; CEMT • 1 spec.; same data as for preceding; 6 Nov. 1979; CEMT • 1 spec.; same data as for preceding; 1 Apr. 1980; CEMT • 1 spec.; Lavras UFLA; Sep. 2002; Vaz-de-Mello leg.; CEMT • 1 spec.; Lima Duarte, Parque Estadual Ibitipoca; 20 Feb. 1997; C.R.M. Abreu leg.; CEMT • 1 spec.; Montes Claros; Nov. 1990; CEMT • 1 spec.; same data as for preceding; Jan. 1991; CEMT • 9 specs; Nova Era; Aug. 1987; CEMT • 9 specs; Paracatu; Mar. 1997; S. Lourengo leg.; CEMT • 1 spec.; same data as for preceding; Nov. 1997; CEMT • 6 specs; same data as for preceding; Mar. 1998; CEMT • 4 specs; Recreio; Jan. 2000; Lopes-Andrade leg.; CEMT • 1 spec.; Santa Barbara; 11 Jan. 1995; J.C. Zanuncio leg.; CEMT • 5 specs; same data as for preceding; 17 Feb. 1994; CEMT • 1 spec.; same data as for preceding; 27 Oct. 1994; CEMT • 2 specs; same data as for preceding; 26 Jan. 1995; CEMT • 1 spec.; Santana do Riacho, PARNA Serra do Cipó; 11 Nov. 2004; G. Schiffler leg.; Cerrado; CEMT • 6 specs; Serra Bocaina, Campo Sujo; 21°19′47″ S, 44°59′46″ W; 6 Sep. 2012; A. Diaz-Rojas leg.; pig dung; CEMT • 1 spec.; Sete Lagoas; Jan. 1991; F.Z. Vaz-de-Mello leg.; CEMT • 4 specs; Teixeiras; Nov. 1996; Hardy and Harrison leg.; CEMT • 1 spec.; Viçosa; 7 Feb. 1996; J.N.C. Louzada leg.; CEMT • 1 spec.; same data as for preceding; 10 Apr. 1933; CEMT • 2 specs; same data as for preceding; 20 Feb. 1986; P.S.F. Fiuza leg.; UV trap; CEMT • 1 spec.; same data as for preceding; 20 Apr. 1990; G.A.R. Melo leg.; attracted by light; CEMT • 4 specs; same data as for preceding; 20 Sep. 1993; Louzada and Silva leg.; CEMT • 6 specs; same data as for preceding; 23 Sep. 1993; CEMT • 7 specs; same data as for preceding; Campus UFV; Nov. 1997; F. Vaz-de-Mello leg.; CEMT • 4 specs; Viçosa, Córrego do Paraíso, Mata da Prefeitura; 11 Dec. 1988; Fiuza and Martins leg.; CEMT • 3 specs; same data as for preceding; 13 Dec. 1984; CEMT • 2 specs; Viçosa; 1994–1995; Louzada, Carvalho and Silva leg.; pasture; CEMT • 2 specs; Viçosa, UFV; Dec. 1999; Lopes-Andrade and Vaz-de-Mello leg.; CEMT • 4 specs; Viçosa; Nov. 1996; Vaz-de-Mello, Hardy and Harrion leg.; CEMT. – **Pará** • 1 spec.; Paragominas; 2.9372° S, 47.210° W; elev. 114 m; Feb. 2001; R. Solar leg.; agric; CEMT • 1 spec.; same data as for preceding; 2.9123° S, 47.674° W; Nov. 2011; R. Solar leg.; perturbed primary forest; CEMT • 4 specs; Santarém; Agric. M, B129 T9 P2 ARM1; CEMT • 1 spec.; Santarém, Alter do Chão; 2 Aug. 2003; savana; CEMT • 8 specs; Santarém; fruit culture; CEMT • 1 spec.; same data as for preceding; B112 T9 P3 ARM 1; CEMT. – **Paraíba** • 1 spec.; Areia, Mata Pau de Ferro; 3–4 May 2000; M. Avany leg.; light trap; CEMT • 2 specs; Cacimba de Dentro, Fazenda Cachoeira de Capivara; 6°40′ S, 35°45′ W; elev. 340 m; May 2003; M.I.M. Hernández leg.; caatinga; pitfall; CEMT • 1 spec.; Estua do Rio Mamanguape; 1–7 Jun. 2000; D. Araújo leg.; Malaise trap; CEMT • 1 spec.; same data as for preceding; 25–27 Sep. 2000; light trap; CEMT • 1 spec.; Rio Tinto, APA Barra do Rio Mamanguape; 6°46′41″ S,

64°35′37″ W; 13 Nov. 2012; D. Dal-Bó leg.; Malaise trap; CEMT. – **Paraná** • 4 specs; Entre Rio do Oeste; 26 Dec. 2017; M.E. Maldaner leg.; manually (light); CEMT • 1 spec.; Jaguariaíva, Parque Estadual do Cerrado; 3 Feb. 2011; Grossi and Parizotto leg.; CEMT • 1 spec.; Londrina; Nov.–Dec. 1998; M. Medri leg.; CEMT. – **Pernambuco** • 1 spec.; Igarassu, RECD; 11 May 2007; Costa *et al.* leg.; CEMT • 1 spec.; same data as for preceding; 27 Apr. 2007; Costa *et al.* leg.; CEMT • 1 spec.; same data as for preceding; Silva *et al.* leg.; CEMT. – **Rio de Janeiro** • 2 specs; Angra dos Reis, Bracuí, lowland; 10–11 May 2012; Nessimian leg.; UV light; CEMT • 14 specs; Miguel Pereira; Jan. 1998; J. Carlos leg.; CEMT • 4 specs; same data as for preceding; Feb. 1998; CEMT • 3 specs; same data as for preceding; Mar. 1998; CEMT • 2 specs; Niteroi, Pendotiba; Feb. 2000; B. Schott leg.; CEMT • 8 specs; Nova Friburgo; Nov. 1996; F.Z. Vaz-de-Mello leg.; CEMT • 8 specs; same data as for preceding; Nov. 1998, P. Grossi and E. Grossi leg; CEMT • 12 specs; Feb. 2001; P. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Dec. 2001; CEMT • 1 spec.; same data as for preceding; Mar. 2003; E. Grossi and P. Grossi leg.; CEMT • 3 specs; same data as for preceding; Mar. 2012; E. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Nov. 2016; E. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Macaé de Cima; Nov. 1998; F.Z. Vaz-de-Mello and E. Grossi leg.; CEMT • 1 spec.; Rio de Janeiro, Deodoro; Jan. 1946; W. Zikán leg.; CEMT • 1 spec.; Rio de Janeiro, Parque da Cidade; 30 Jan. 1991; A. Bello leg.; CEMT • 1 spec.; Saquarema; Dec. 1980; A. Bello leg.; CEMT • 1 spec.; Teresópolis, Granja Comary; 10 Jan. 1979; A. Bello leg.; CEMT. – **Rio Grande do Sul** • 1 spec.; Bagé, Fazenda Querências da Pedreira; 30°58′58″ S, 54°20′12″ W; 20–26 Oct. 2011; R.M. Moraes leg.; pitfall; CEMT • 1 spec.; Bento Gonçalves; Nov. 2001; C. Arioli leg.; CEMT • 1 spec.; Dom Pedrito; 30°58′41,19″ S, 54°40′38,78″ W; 27 Dec. 2015; P.G. da Silva leg.; manually collect (light); CEMT • 9 specs; El Dorado do Sul, E.E.A-U.F.R.G.S.; 11 Oct. 1996; Carvalho and Silva leg.; arm. lum; CEMT • 2 specs; same data as for preceding; Oct. 1996; Silva and Carvalho leg.; CEMT • 1 spec.; Santa Cruz do Sul, Cerro Alegre; 29°48′05″ S, 52°19′39″ W; 10 Dec. 2011; R. Bohn leg.; grass land field (P1); pitfall bovine feces; CEMT • 1 spec.; Santa Maria; Nov. 2014–May 2015; J. Boscardin leg.; CEMT • 16 specs; Silveira Martins; 29°38′ S, 53°37′ W; Jan. 2011; G. Viegas leg.; human feces; pitfall; CEMT. – **Rondônia** • 1 spec.; Porto Velho, Rio das Garças; 8°49′47″ S, 63°46′51″ W; Bom Jesus; 30 Mar. 2017; D.C. Santos and K.K.G. Silva leg.; FIT; CEMT • 1 spec.; Rolim de Moura; 11°44′24″ S, 61°55′26″ W; elev. 274 m; 7–9 Dec. 2015; D.C. Castro leg.; SAF, pitfall human dung; CEMT • 1 spec.; same data as for preceding; 11°44′25″ S, 61°55′26″ W; elev. 273 m; CEMT. – **Roraima** • 6 specs; Caracaraí; Jun. 1997; Vaz-de-Mello leg.; CEMT. – **Santa Catarina** • 2 specs; Santa Rosa de Lima; 28°02′ S, 49°08′ W; elev. 365 m; 18 Jan. 2018; C.M. Rover leg.; pasto aberto; pitfall; CEMT • 1 spec.; São Francisco do Sul; 17–23 Dec. 2016; J.V. Korgut leg.; manually; CEMT. – **São Paulo** • 2 specs; Descalvado, Fazenda Itaúnas; 6 Apr. 2006; N.W. Perioto leg.; mata-cerrado; pitfall; CEMT • 1 spec.; same data as for preceding; 21 Sep. 2006; forest + *Citrus* plantation; CEMT • 1 spec.; same data as for preceding; 24 Jul. 2006; CEMT. – **Tocantins** • 1 spec.; Palmas; 22 Nov. 2001; U.H.E. Lajeado leg.; Equipe de Resgate; CEMT • 4 specs; Porto Nacional; 5 Oct. 2005; M.S. Matos leg.; agrotins; CEMT.

ECUADOR – **El Oro** • 5 specs; Santa Rosa; elev. 230 m; 1 Sep. 1997; C. Carpio leg.; excremento de vaca; CEMT. – **Esmeraldas** • 1 spec.; Camaroes; Nov. 1987; N. Silva leg.; CEMT.

EL SALVADOR – **Ahuachapán** • 1 spec.; Cara Sucia, Parq. Nacional El Imposible; 13°49′41″ N, 89°56′37″ W; 18–20 Jul. 2004; Q. Santiago leg.; FIT; CEMT.

MEXICO – **Oaxaca** • 3 specs; San José, Del Chilar, S. baja caducufolia; 20 Jan. 2005; Ramírez and Ponce leg.; directa en excremento de vaca [extracted from cow dung]; CEMT.

PARAGUAY – **Alto Paraná** • 2 specs; Limoy; 23 Nov. 1990; G. Arriágada; CEMT. – **Boquerón** • 6 specs; Loma Plata; 25–28 Jan. 1991; R.A. Matavelli leg; CEMT. – **Gran Asunción** • Asunción; 30 Nov. 1989; G. Arriágada leg.; CEMT. – **Paraguari** • 1 spec.; Narajo; 5 Nov. 2000; CEMT.

URUGUAY – **Rivera** • 2 specs; Rivera, Bodegas Carrau farm.; 30°58′16″ S, 55°26′38″ W; 3–11 Oct. 2011; R.M. Moraes leg.; pitfall trap baited (human + pig dung); CEMT • 2 specs; same data as for preceding; 31°41′5″ S, 54°39′42″ W; CEMT • 4 specs; same data as for preceding; 31°41′4″ S, 54°37′25″ W; CEMT.

UNITED STATES OF AMERICA – **Florida** • 1 spec.; Martin, Jonathan State Park; Jun. 1995; P. Bélanger leg.; CEMT. – **Texas** • 1 spec.; Live Oak, Choke Canyon S.P., Three Rivers; 24 Jun. 1995; B. Buchli leg.; CEMT.

Collecting information

Specimens can be found in various locations at altitudes ranging 10 to 1100 metres and can be collected with different traps. Specimens were collected with light and flight intercept traps, with pitfalls baited with human and bovine feces, or directly on the faecal mass and in forest litter (Stebnicka 2005b).

Remarks

Ataenius aequalis-platensis group comprises 27 species, nine of these are found in Brazil. A key for species of this group can be found in Stebnicka (2005b).

Ataenius complicatus group
Figs 10D, 40B

Diagnosis

Length 2.8–7.0 mm. Body elongate, shagreened, glabrous or not, piceous. Head coarsely punctate, punctures larger as they approach frons; clypeus always sinuate; lateral angles obtuse or denticulate; ventral edge of clypeus medially downward bent and acuminate. Pronotum glabrous or not, always covered by large and close punctures. Scutellum foveate. Elytra with distinct sculpture; striae always with coarse, deep punctures reaching lateral margins of interstriae; interstriae distinctively elevated carinate or tectiform; lateral margins crenulate by strial punctures. Ventral surface shagreened, covered with coarse punctures. Metatibiae with apical accessory spine always present, large and acuminate, longer than apical fringe of setae.

Material examined

***Ataenius complicatus* Harold, 1869**
Ataenius complicatus Harold, 1869b: 102.
Ataenius lorettii Martínez, 1952: 194.

ARGENTINA – **San Luis** • 1 spec.; Dept. Belgrano, Fundo. El Molle; 18 Feb.–8 Mar. 2012; A. Gerardo leg.; human feces; pitfall; CEMT.

BRAZIL – **Amazonas** • 3 specs; Autazes, Urucumtuba; 8 Feb. 2013; P.M. leg.; CEMT • 1 spec.; Itacoatiara, Fazenda Aruana, Am010, Km 215; 13–14 Apr. 1991; C.S. Motta and F.J.A. Peralta leg.; INPA • 1 spec.; Lago de Janaucá; 30 Aug. 1962; J. Delona leg.; INPA. – **Bahia** • 2 specs; Caravelas; 20 Feb. 1997; Anjos and Silveira leg; CEMT • 1 spec.; Cruz das Almas; Jan. 2005; A.F. Brito and Rebeiro leg.; CEMT • 3 specs; Feira de Santana, Fazenda Cruzeiro do Mocó; 12°12′ S, 39°02′ W; 11–13 Jul. 2013; pitfall human feces; CEMT • 1 spec.; Presidente Tancredo Neves; 13°22′ S, 39°19′ W; Jan. 2011; C.P.M. Leite leg.; pasture; CEMT • 1 spec.; same data as for preceding; 13°22′56″ S, 39°20′27″ W; Jan. 2011; pitfall; CEMT. – **Distrito Federal** • 1 spec.; Brasília, Lago Norte; Sep. 2013; R.V. Nunes leg.; CEMT • 1 spec.; Chapada dos Guimarães, Fazenda Jardim; 29 Sep. 2012; V.C. Jorge leg.; CEMT • 1 spec.; same data as for preceding; 10 Nov. 2012; CEMT. – **Mato Grosso** • 2 specs; Chapada dos Guimarães, Cachoeira Geladeira; 15°25′26″ S, 55°42′53″ W; elev. 620 m; 9 Jan. 2013; M.D. Gimo leg.; pitfall;

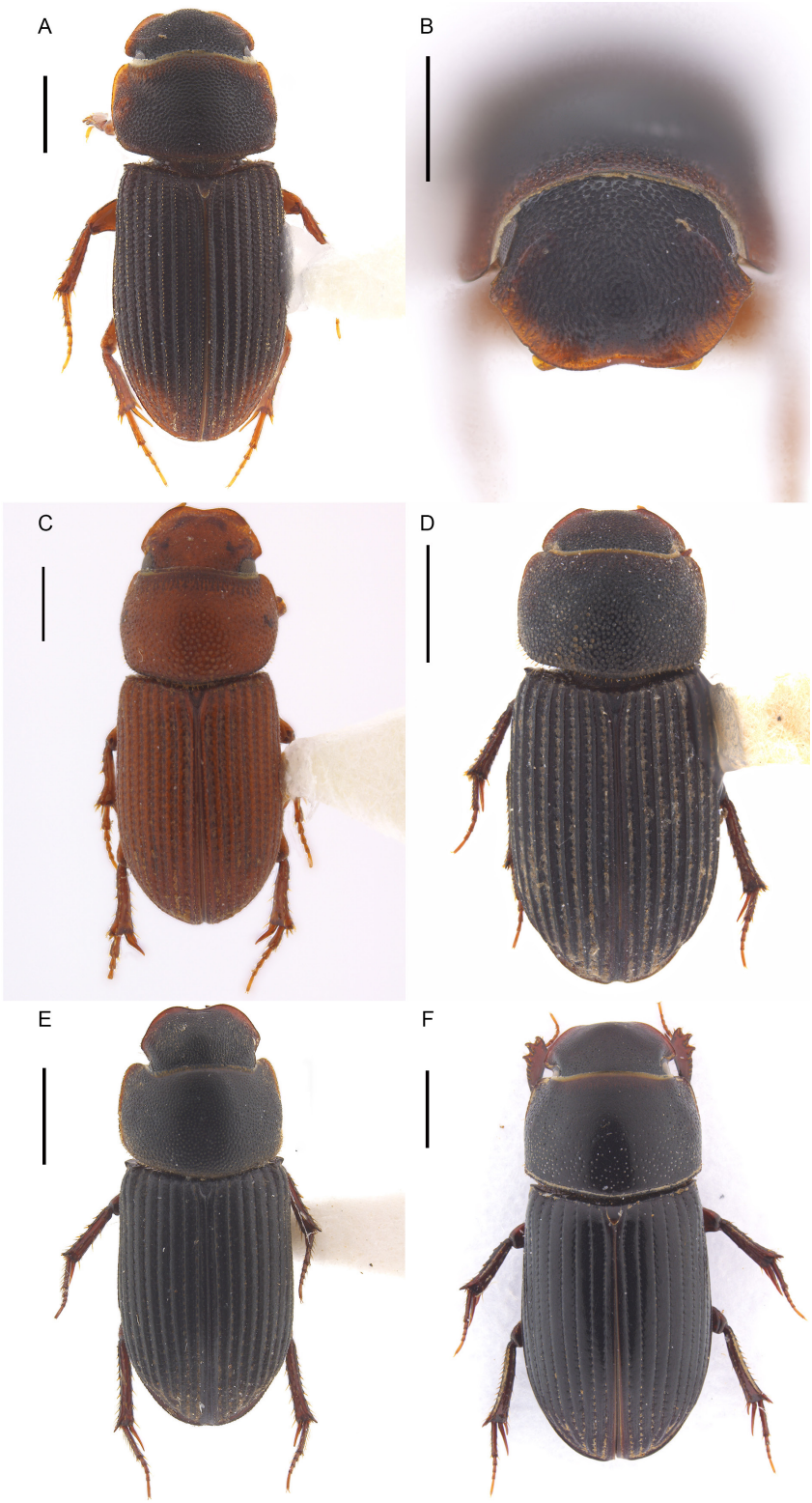

Fig. 10. A–B *Ataenius opacipennis* Schmidt, 1910 (CEMT), Goiás, Rio Verde. **A**. Dorsal habitus. **B**. Head, frontal view. **C**. *A. pereirai* Petrovitz, 1970 (CEMT), Brasilia, Distrito Federal, Brazil, dorsal habitus. **D**. *A. crenulatus* Schmidt, 1910 (CEMT), Autazes, Amazonas, Brazil, dorsal habitus. **E**. *A. morator* Harold, 1869 (CEMT), Rio Branco, Acre, Brazil, dorsal habitus. **F**. *A. purator* Harold, 1868 (CEMT), Autazes, Amazonas, Brazil, dorsal habitus. Scale bars: A–C = 0.5 mm; D–F = 1 mm.

CEMT • 1 spec.; Poconé, Fazenda Conceição; 16°19′41″ S, 56°30′11″ W; 23–31 Mar. 2011; M.B. Pessôa leg.; hum fec; CEMT. – **Mato Grosso do Sul** • 1 spec.; Guia Lopes da Laguna; 10 Dec. 2007; A.R. Abot leg.; light trap; CEMT • 1 spec.; same data as for preceding; 20 Dec. 2007: CEMT. – **Minas Gerais** • 8 specs; Águas Vermelhas; Dec. 1997; A. Bello leg.; CEMT • 1 spec.; Buenópolis, Parque Estadual da Serra do Cabral, Almirante; 15 Apr. 2008; M.F. Souza leg.; campo limpo [clean field]; CEMT • 1 spec.; Caminho de São Thomé das Letras para Cruzilia; Sep. 1997; F. Frieiro-Costa leg.; CEMT • 2 specs; Cordisburgo; Jan. 1999; Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; Fazenda Pontinha; Jul. 1994; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; Jan. 1998; CEMT • 1 spec.; same data as for preceding; Jan. 1999; CEMT • 1 spec.; Diamantina; 23 Feb.–3 Mar. 2001; N. Degallier leg.; CEMT • 1 spec.; Lavras; 21°20′19″ S, 44°58′35″ W; CEMT • 1 spec.; same data as for preceding; 21°20′19″ S, 44°58′37″ W; 22 Mar. 2008; M.R. Santos and D.L.H. Takahashi leg.; CEMT • 1 spec.; same data as for preceding; 21°20′19″ S, 44°58′34″ W; CEMT • 1 spec.; Lavras, Próx. Poço Bonito; Dec. 2001; Vaz-de-Mello leg.; CEMT • 1 spec.; Uberlândia, Campus UFU; 18 Feb. 2006; J. Mendes leg.; CEMT • 2 specs; Paracatu; Mar. 1997; S. Lourengo leg.; CEMT • 2 specs; Três Marias; Dec.1991; CEMT • 2 specs; Vespasiano; Nov. 1953; A. Machado leg.; CEMT • 1 spec.; Viçosa; 10 Jan. 1994; Louzada and Silva leg.; CEMT • 1 spec.; same data as for preceding; 13 Jan. 1994; CEMT. – **Pará** • 1 spec.; Alter do Chão; 24 Jul. 2003; Savana A.R. Matavelli leg.; CEMT • 6 specs; Monte Dourado, Jari Cellulose; 0°49′ S, 52°35′ W; Mar.–Apr. 2005; T.A. Gardner and Hernández leg.; *Eucalyptus*; dung pitfall trap; CEMT • 1 spec.; Santarém; pasture; CEMT. – **Paraíba** • 1 spec.; Cacimba de dentro, Fazenda Cachoeira de Capivara; 30 May 2003; Olivia and Rembrandt leg.; CEMT • 1 spec.; Piracuruca, P.N. Sete Cidades; 4°06′28″ S, 41°40′13″ W; Cachoeira do Riachão; elev. 171 m; 8 Feb. 2013; D.M. Takiya and Santos leg.; Pennsylvania trap; CEMT • 3 specs; São José dos Cordeiros, Fazenda Almas; 8–9 Mar. 2003; Rothéa and Creão leg.; light trap; CEMT. – **Piauí** • 1 spec.; S.R. Nonato, P.N.S. da Capivara; Jan. 1999; C.A. Matrangolo leg.; CEMT. – **Rio de Janeiro** • 1 spec.; Angra dos Reis, Bracuí, Baixada; 10–11 May 2002; Nessimini leg.; UV light; CEMT • 1 spec.; Miguel Pereira; Jan. 1998; J. Carlos leg.; CEMT • 1 spec.; Nova Friburgo; Oct. 1997; P. Grossi leg.; CEMT • 1 spec.; Nova Friburgo, Macae de Cima; 22°22′ S, 42°29′ W; E. Grossi and P. Grossi leg.; CEMT.

COLOMBIA – **Cundinamarca** • 1 spec.; Fusa; Sep. 1962; CEMT.

MEXICO – **Veracruz** • 1 spec.; Apazapan; 19°19′34″ S, 96°43′34″ W; elev. 3300 m; Jul. 1999; E. Montes de Oca and Q. Santiago leg.; mango and banana plantation; cow dung trap; CEMT.

NICARAGUA – **León** • 1 spec.; Jul. 1989; B. Barcete leg.; CEMT. – **Masaya** • 2 specs; Las Flores; May 1993; Cantamesa leg.; lecocq; CEMT.

***Ataenius crenulatus* Schmidt, 1910**
Ataenius crenulatus Schmidt, 1910: 359.
Ataenius rickardsi Hinton, 1938: 124.
Ataenius ricardsi [sic!] – Galante, Stebnicka & Verdú 2003: 291.

BRAZIL – **Amazonas** • 4 specs; Autazes, Urucumbuta; P.M. leg.; C.D.C; CEMT. – **Bahia** • 2 specs; Mucuri; 21 Jan. 1997; Anjos and Silveira leg.; CEMT. – **Distrito Federal** • 1 spec.; Brasília, Fazenda Água Limpa; Nov. 2010; C. Suinaga leg.; CEMT. – **Goiás** • 1 spec.; Rio Verde; Sep. 1997; J. Carlos leg.; CEMT. – **Maranhão** • 1 spec.; Ipecuru-Mirim; 3°28′01″ S, 14°20′47″ W; 31 Aug. 2010; R. Matavelli and A. Campos leg; pasto II; pitfall human feces FH2; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, CEPLAC; 7 May 2010; V. Gonçalvez leg.; under *Tapirus* feces; CEMT • 1 spec.; Alta Floresta; 9°49′44″ S, 56°19′51″ W; Jun. 2008; E. Berenguer leg.; Frag 27; pitfall with human feces; CEMT • 1 spec.; Chapada dos Guimarães, Santuário de Elefantes; 15°18′55″ S, 55°24′14″ W; 22 Jan. 2020; H. Sehn *et al.* leg.; horse feces; CEMT • 2 specs; same data as for preceding; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 14 Oct. 2007; CEMT • 2 specs; same data as for preceding; 31 Oct.

2007; CEMT • 4 specs; same data as for preceding; 15 Dec. 2007; O. Peres-Filho leg.; light trap; CEMT • 22 specs; same data as for preceding; 14 Apr. 2008; CEMT • 1 spec.; Diamantino; Jan. 2001; A.M. Bello leg.; CEMT • 5 specs; Poconé, Fazenda Alvorada; 16°27′10″ S, 56°24′53″ W; 23–31 Mar. 2011; M.B. Pessoa leg.; human feces; CEMT • 2 specs; Poconé, Pousada das Aráras; 3 Dec. 1998; J.L. Moreno and T. Mestre leg.; Pantanal; CEMT • 1 spec.; Sesc Pantanal; 16 Nov. 2001; CEMT • 3 specs; same data as for preceding; 5 Jul. 2003; light trap; CEMT • 2 specs; same data as for preceding; 5 Aug. 2003; CEMT • 1 spec.; same data as for preceding; 13 Nov. 2003; CEMT • 2 specs; same data as for preceding; 16 Nov. 2003; CEMT • 1 spec.; Paracatu; Mar. 1997; S. Lourenço leg.; CEMT • 3 specs; same data as for preceding; Mar. 1998; S. Lourenço jr leg.; CEMT. – **Mato Grosso do Sul** • 1 spec.; Corumbá, Fazenda São Bento; Apr. 2012; M. Rossini leg.; manually; bovine feces; CEMT • 3 specs; same data as for preceding; 7°19′14″ S, 56°41′55″ W; 28 Apr. 2012; M. Rossini leg.; riparian forest of Rio Piquiri; CEMT • 1 spec.; same data as for preceding; 7°19′14″ S, 56°41′59″ W; CEMT • 2 specs; same data as for preceding; 17°19′16″ S, 56°41′51″ W; CEMT • 1 spec.; same data as for preceding; 17°19′16″ S, 56°42′13″ W; CEMT • 1 spec.; same data as for preceding; 17°19′17″ S, 56°42′15″ W; CEMT • 1 spec.; same data as for preceding; 17°19′18″ S, 56°41′51″ W; CEMT • 2 specs; same data as for preceding; 17°21′23″ S, 56°41′47″ W; *Vochysia divergens* for.; CEMT • 1 spec.; same data as for preceding; 17°21′29″ S, 56°41′51″ W; CEMT • 2 specs; same data as for preceding; 17°21′31″ S, 56°41′52″ W; CEMT • 2 specs; same data as for preceding; 17°21′31″ S, 56°41′53″ W; CEMT • 5 specs; same data as for preceding; 17°21′32″ S, 56°41′55″ W; CEMT • 5 specs; same data as for preceding; 17°21′33″ S, 56°41′54″ W; CEMT • 12 specs; Corumbá, Passo do Lontra; Feb. 1996; Louzada and Vaz-de-Mello leg.; CEMT • 1 spec.; Dourados; 10 Dec. 2005; M. Milo leg.; CEMT • 2 specs; Guia Lopes da Laguna; 15 Nov. 2007; A. Abot leg.; light trap; CEMT • 1 spec.; Selviria, UNESP Farm; 6 Jul. 1991; *Brachiaria decumbens* pasture; ex Guzera cattle dropping; INPA. – **Pará** • 1 spec.; Paragominas; elev. 114 m; Feb. 2011; R. Solar leg.; agric; CEMT. – **Paraíba** • 1 spec.; Cacimba de Dentro, Fazenda Cachoeira de Capivara; 6°40′ S, 35°45′ W; elev. 340 m; May 2003; M.I.M. Hernández leg.; caatinga; pitfall; CEMT. – **Paraná** • 1 spec.; Entre Rio do Oeste; 26 Dec. 2017; M.E. Maldaner leg.; manually (light); CEMT. – **Rio Grande do Sul** • 4 specs; Bagé, Fazenda Querência da Pedreira; 30°58′58″ S, 54°20′12″ W; 26 Oct.–4 Nov. 2011; R.M. Moraes leg.; pitfall; CEMT • 1 spec.; Bagé, Leões farm; 30°59′12″ S, 54°29′47″ W; 20–26 Oct. 2011; R.M. Moraes leg.; pitfall trap (human + pig dung); CEMT • 2 specs; Eldorado Do Sul, Estação Experimental Agronomica-UFRGS; 30 Mar.–5 Apr. 2012; R.M. Moraes and J. Podkowa leg.; pitfall; CEMT • 1 spec.; Santa Cruz do Sul, Cerro Alegre; 29°48′19″ S, 52°19′53″ W; 17 Dec. 2011; R. Bohn leg.; secondary forest; pitfall bovine feces; CEMT • 1 spec.; Silveira Martins; 29°38′ S, 53°37′ W; Jan. 2011; G. Viegas leg.; CEMT. – **Santa Catarina** • 1 spec.; Campos Novos; 27°23′ S, 51°12′ W; Feb. 2011; R.C. Campos leg.; baited pitfall; CEMT • 1 spec.; Santa Rosa de Lima; 28°3′S, 49°8′W; elev. 278 m; 18 Jan. 2018; C.M. Rover leg.; silvopastoral with nuclei; CEMT. – **Tocantins** • 1 spec.; Distrito de Pium, Fazenda Quero-Quero; 10 Oct. 2016; L.A. Medeiros leg.; pitfall; CEMT • 5 specs; Porto Nacional; 5 Oct. 2005; M.S. Matos leg.; agrotins; CEMT.

COLOMBIA – **Cesar** • 1 spec.; Valledupar, La Arcadia; 10°21′ N, 73°23′ W; elev. 160.6 m; 13 Aug. 2012; S. Montoya leg.; forest; t. exc; CEMT. – **Meta** • 2 specs; San Martín, Hacienda Tocancipa, Sabana Bosque; elev. 330 m; Jan. 2000, J. Noriega leg.; CEMT.

MEXICO – **Veracruz** • 1 spec.; 11 km W of Palma Sola, Ravine of Río Platanar; 19°46′ N, 96°25′ W; elev. 120 m; 23 Aug.–3 Sep. 1976; Edmonds and Kohlmann leg.; on road to plan de las Hayas; CEMT • 11 specs; Los Tuxtlas; Oct. 1997; Vaz-de-Mello leg.; CEMT • 1 spec.; Plan de Hidalgo; elev. 200 m; 30 Jul. 1997; R. Sánchez and A. Díaz leg.; maizal, trampa excremento de vaca [cornfiel, trap with cow feces]; CEMT.

PARAGUAY – **Gran Asunción** • 1 spec.; Asunción; 30 Nov. 1989; G. Arriágada leg.; CEMT.

URUGUAY – **Cerro Largo** • 1 spec.; Banãdo de Medina, Piedras Sueltas Farm; 32°21′03″ S, 53°58′54″ W; 13–20 Dec. 2011; R.M. Moraes leg.; preserved area; pitfall; CEMT • 1 spec.; Melo, La Invernada farm; 13–20 Dec. 2011; R.M. Moraes leg.; pitfall trap (human + pig dung); CEMT. – **Rivera** • 1 spec.; Rivera, COFUSA-Compañia Florestal Uruguaya S.A.; 3–11 Oct. 2011; R.M. Moraes leg.; pitfall baited (human + pig dung); CEMT • 3 specs; same data as for preceding; 30°57′36″ S, 55°29′53″ W; CEMT • 6 specs; Rivera, Fazenda Bodegas Cacau; 30°58′19″ S, 55°26′40″ W; 3–11 Oct. 2011; R.M. Moraes leg.; FIT; CEMT • 1 spec.; Vichadero, El Pino Farm.; 21–27 Nov. 2011; R.M. Moraes leg.; pitfall trap baited (human + pig dung); CEMT • 1 spec.; Vichadero, Santa Adelaida Farm.; 31°41′05″ S, 54°39′42″ W; 3–11 Oct. 2011; R.M. Moraes leg.; pitfall trap (human + pig dung); CEMT.

VENEZUELA – **Yaracuy** • 3 specs; Bolívar Aroa; 10°00′00″ N, 68°00′00″ W; elev. 459 m; 19 Jul. 2009; M. Asmüssen and P. Colmenares leg.; human feces; CEMT.

UNKNOWN COUNTRY • 1 spec.; no data; INPA.

***Ataenius forsteri* Balthasar, 1960**
Ataenius forsteri Balthasar, 1960: 4–5.

BRAZIL – **Distrito Federal** • 2 specs; Brasilia, Fazenda água limpa; 15°56′40″ S, 47°55′38″ W; 10 Dec. 2017; Y. Ferreira leg.; pasture; pitfall with cow dung; CEMT. – **Espírito Santo** • 1 spec.; Venda Nova do Imigrante; 14 Jan. 2000; Lopes-Andrade and Vaz-de-Mello leg.; CEMT • 3 specs; same data as for preceding; Feb. 2010; F. Falqueto leg.; CEMT. – **Goiás** • 1 spec.; Bela Vista de Goiás, Cristianópolis, Fazenda Arapuca Velha; 21 Sep. 1993; Bankovics leg.; Cerrado; at light; CEMT • 1 spec.; Rio Verde; Sep. 1997; J. Carlos leg.; CEMT. – **Maranhão** • 2 specs; Mirador, P.E. Mirador, Base Geraldina; 24 Dec. 2006; R.O. Souza and J.C. Silva leg.; light; CEMT. – **Mato Grosso** • 1 spec.; Água Boa, Rancho Araguaia; 13°56′40″ S, 52°06′10″ W; 24 Dec. 2017; Mota and Schutz leg.; CEMT • 1 spec.; Alta Floresta, CEPLAC; 4 Sep. 2009; V. Gonçalves leg.; CEMT • 1 spec.; Alta Floresta, Chacara Recanto das Orquídeas; 3 Oct. 2011; A. Petini and Bevell leg.; CEMT • 2 specs; Chapada dos Guimarães; 15°24′31″ S, 55°45′53″ W; 2 Dec. 2015; A. Frolov and L. Akhemetova leg.; CEMT • 7 specs; Cotriguaçu, Fazenda São Nicolau; 14 Nov. 2007; O. Peres-Filho leg.; light trap; CEMT • 6 specs; same data as for preceding; 15 Nov. 2007; CEMT • 1 spec.; same data as for preceding; 15 Dec. 2007; light trap 01; CEMT • 2 specs; same data as for preceding; Oct. 2014; R. Stofel leg.; CEMT • 2 specs; same data as for preceding; Nov. 2007; O. Peres-Filho leg.; light; CEMT • 2 specs; Cotriguaçu, Fazenda São Nicolau; 9°51′18″ S, 58°14′57″ W; elev. 220 m; 14 Dec. 2009; Vaz-de-Mello leg.; light, manual; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 14 Dec. 2007; O. Peres-Filho leg.; CEMT • 1 spec.; same data as for preceding; light trap; CEMT • 1 spec.; same data as for preceding; 15 Dec. 2007; CEMT • 11 specs; same data as for preceding; light trap; CEMT • 1 spec.; same data as for preceding; 31 Oct. 2007; CEMT • 8 specs; same data as for preceding; 18 Oct. 2014; W. Chamorro leg.; CEMT • 2 specs; Cuiabá; 15°16′45″ S, 56°00′06″ W; 7 Dec. 2015; A. Frolov and L. Akhemetova leg.; CEMT • 2 specs; same data as for preceding; Fazenda Mutuca; 15°19′31″ S, 55°58′3″ W; elev. 285 m; Nov. 2015; R.V. Nunes and A. Frolov leg.; light; CEMT • 5 specs; same data as for preceding; Recanto Siriema; 15°35′32″ S, 56°01′38″ W; 4 Nov. 2014; R.V. Nunes and Becker leg.; light; CEMT • 2 specs; Diamantino; Jan. 2001; A.M. Bello leg.; CEMT • 2 specs; Diamantino, Alto Rio Arinos; Sep. 2001; E. Furtado leg.; CEMT • 1 spec.; Poconé, Pousada das Aráras; 3 Dec. 1998; J.L. Moreno and T. Mestre leg.; Pantanal; CEMT • 2 specs; Porto Estrela, EES das Araras; 15°39′9″ S, 57°12′53″ W; elev. 217 m; 8–12 Oct. 2011; Vaz-de-Mello leg.; light; CEMT. – **Mato Grosso do Sul** • 2 specs; Campo Grande; 1990–1992; I. Biachin leg.; CEMT • 1 spec.; Corumbá, Fazenda São Bento, Próx porto Jofre; 14 Apr. 2011; R.V. Nunes leg.; light; CEMT • 1 spec.; Guia lopes da Laguna; 15 Nov. 2007; A. Abot leg.; light trap; CEMT. – **Minas Gerais** • 2 specs; Caminho de São Thomé das Letras para Cruzilia; Sep. 1997; F. Frieiro-Costa leg.; CEMT • 3 specs; Cordisburgo; Jan. 1999; F.Z. Vaz Mello leg.; CEMT • 3 specs; Ijaci, Fazenda FAEPE; Nov. 2002; J. Louzada leg.; CEMT • 3 specs; Ipatinga; Nov. 1994; A. Bello

leg.; CEMT • 1 spec.; Lavras-Ingaí, Próx Quedas do Rio Bonito; 21 Oct. 2016; J. Mariano leg.; CEMT • 2 specs; Lavras; 21°19′55″ S, 44°58′08″ W; 22 Mar. 2008; M.R. Santos and D.L.H. Takahashi leg.; CEMT • 2 specs; same data as for preceding; 21°20′19″ S, 44°58′35″ W; CEMT • 3 specs; Paracatu; Mar. 1997; S. Lourengo jr leg.; CEMT • 2 specs; Patos de Minas; Jan. 1970; P.S.F. Fiuza leg.; CEMT • 1 spec.; Santa Barbara; 8 Dec. 1994; J.C. Zanuncio leg.; CEMT • 1 spec.; same data as for preceding; 26 Jan. 1995; J.C. Zanuncio leg.; CEMT • 1 spec.; Viçosa; 20 Sep. 1993; Louzada and Silva leg.; CEMT • 1 spec.; same data as for preceding; 23 Sep. 1993; CEMT • 1 spec.; Viçosa; Universidade Federal de Viçosa; 14 Dec. 1999; Lopes-Andrade and Vaz-de-Mello leg.; CEMT. – **Paraíba** • 1 spec.; Rio Tinto; APA Barra do Rio Mamanguape; 6°46′41″ S, 34°55′37″ W; 23 Mar. 2012; Da-Bó leg.; CEMT. – **Piauí** • 1 spec.; Piripiri, P.N. Sete Cidades; 4°06′27″ S, 41°40′12″ W; elev. 165 m; 7–12 Feb. 2013; Vaz-de-Mello and Grossi leg.; *Kerodon* dung; CEMT. – **Rio de Janeiro** • 1 spec.; Angra dos Reis, Bracuí, lowland; 10–11 May 2002; Nessiamian leg.; UV light; CEMT • 1 spec.; Miguel Pereira; Nov. 1997; CEMT. – **Rio Grande do Sul** • 1 spec.; Santa Maria; Nov. 2014–May 2015; J. Boscardin leg.; CEMT • 1 spec.; São Geronimo; 17 Dec. 1984; Frace leg.; CEMT. – **São Paulo** • 1 spec.; São Carlos; 11 Nov. 1993; J. Mendes leg.; CEMT.

***Ataenius sculptilis* Harold, 1868**

Ataenius sculptilis Harold, 1868: 86.

BRAZIL – **Mato Grosso** • 1 spec.; Água Boa, Rancho Araguaia; 13°56′40″ S, 52°06′10″ W; 24 Dec. 2007; Mota and Schutz leg.; CEMT • 2 specs; Alta Floresta, Ceplac; 4 Sep. 2009; V. Gonçalves leg.; *Tapirus* feces; CEMT • 1 spec.; Chapada dos Guimarães; 15°24′31″ S, 55°45′53″ W; 2 Dec. 2015; A. Frolov and L. Akhmetova leg.; light; CEMT • 5 specs; Cotriguaçu, Fazenda São Nicolau; 15 Jul. 2007; O. Peres-Filho leg.; light trap; CEMT • 2 specs; same data as for preceding; 15 Dec. 2007; CEMT • 2 specs; same data as for preceding; Nov. 2007; CEMT • 1 spec.; same data as for preceding; 9°49′32″ S, 58°15′46″ W; elev. 220 m; 10 Dec. 2009; Vaz-de-Mello leg.; *Ficus* plantation; CEMT • 1 spec.; same data as for preceding; 9°50′19″ S, 58°15′03″ W; 25 Oct. 2014; A. Asenjo leg.; light; CEMT • 1 spec.; same data as for preceding; 9°51′20″ S, 58°14′55″ W; Nov. 2014; R.V. Nunes and Asenjo leg.; light; CEMT • 6 specs; Cotriguaçu, Fazenda São Nicolau; 18 Oct. 2014; W. Chamorro leg.; CEMT • 2 specs; same data as for preceding; 95°12′01″ S, 58°14′55″ W; elev. 220 m; 16–20 Oct. 2012; F.Z. Vaz-de-Mello leg.; base camp, manually; CEMT • 1 spec.; Cuiabá, Pari; 6 Oct. 1988; auxiliadora [unreadable]; CEMT • 1 spec.; same data as for preceding; Recanto Siriema; 15°35′32″ S, 56°01′38″ W; 4 Nov. 2014; R.V. Nunes and Becker leg.; CEMT • 3 specs; Diamantino; Jan. 2001; A.M. Bello leg.; CEMT • 2 specs; Paranaita, Teles Pires; 9°19′47″ S, 56°47′49″ W; A.P. Benelli leg.; left margin, 33; CEMT. – **Mato Grosso do Sul** • 1 spec.; Dourados; 22 Oct. 2005; M. Milo leg.; CEMT. – **Minas Gerais** • 1 spec.; Buenópolis, Parque Estadual da Serra do Cabral, Almirante; 15 Apr. 2008, M.F. Sulza leg.; clean field; CEMT • 2 specs; same data as for preceding; Buriti; 14 Apr. 2008; CEMT • 2 specs; Ijaci; Nov. 2002; L. Julio leg.; CEMT • 1 spec.; Lavras, Próx. Poço Bonito; Dec. 2001; Vaz-de-Mello leg.; CEMT • 2 specs; Paracatu; Mar. 1998; S. Lourengo jr leg.; CEMT • 2 specs; Recreio; Jan. 2000; Lopes-Andrade leg.; CEMT.

URUGUAY – **Rivera** • 1 spec.; Rivera, Bañado de Medina, Piedras Sueltas Farm; 32°18′21″ S, 53°57′30″ W; 13–20 Dec. 2011; R.M. Moraes leg.; pitfall human + pig dung; CEMT.

Collecting information

Specimens were collected at altitudes from 60 to 950 metres. The collecting methods vary. Flight and light traps are effective, as well as traps baited with human, pig, bovine and *Tapirus* feces. Species belonging to the group can be found in dry and wet forests under dead trees and forest litter (Stebnicka 2006b).

Remarks

Ataenius complicatus group comprises 16 species, five of these are found in Brazil. A key for species of this group can be found in Stebnicka (2006b).

Ataenius crenator group
Figs 9E–F, 41B

Diagnosis

Length 5.0–7.0 mm. Body large, broad, elongate, glossy piceous. Head with clypeus punctate, punctures finer than those of frons; emarginate, with weak but distinct transverse wrinkles. Pronotum laterally and posteriorly with marginal line; lateral margins fringed with setae; surface with punctures fine and coarse, densely distributed. Elytra with striae deeply punctate; punctures circular, crenating lateral margins of interstriae; interstriae convex. Metafemur with incomplete posterior line; metatibiae with acuminate accessory spine.

Material examined

***Ataenius blapoides* Balthasar, 1947**
Ataenius blapoides Balthasar, 1947: 51.

BRAZIL – **Minas Gerais** • 1 spec.; Cordisburgo, Fazenda Pontinha; Jul. 1994; De Mello leg.; CEMT.

Collecting information

Specimens were collected under logs in rainforest, and at light (Stebnicka 2001a).

Remarks

Ataenius crenator group comprises five species, two are found in Brazil (Stebnicka 2001c). A key for species of this group can be found in Stebnicka (2001c).

Ataenius imbricatus group
Figs 10E, 41A

Diagnosis

Length 3.0–6.0 mm. Body cylindrical, glabrous or not, shagreened or not, normally covered with argillaceous coating which may difficult observing some structures. Head with coarse longitudinally elongated punctures. Pronotum with punctures of variable sizes; lateral margins always fringed with setae. Elytra glabrous or not, shagreened or not. Ventral surface shagreened covered with coarse punctures. Metatibiae without apical accessory spine.

Material examined

***Ataenius balthasari* Petrovitz, 1973**
Ataenius balthasari Petrovitz, 1973: 163–165.

BRAZIL – **Amazonas** • 1 spec.; Manaus, Taruma-Mirim, nr Manaus; 28 Oct. 1981; INPA. – **Roraima** • 1 spec.;Rio Uraricoera, Ilha de Maraca; 2–13 May 1987; J.A. Rafael, J.E.B. Brasil and L.S. Aquino leg.; suspended trap; CEMT • 3 specs; same data as for preceding; INPA.

***Ataenius carinatipennis* Petrovitz, 1973**
Ataenius carinatipennis Petrovitz, 1973: 151–152.
Ataenius granulipennis Petrovitz, 1973: 152–154.

BRAZIL – **Paraíba** • 1 spec.; São José dos Cordeiros, Fazenda Almas; 4–5 May 2003; Valderez and Rothéa leg.; light trap; CEMT. – **Piauí** • 1 spec.; Piracuruca, Parna Sete Cidades, Posto ICMBio; 4°05′57″ S, 41°42′34″ W; 11–14 Dec. 2012; F. Limeira-de-Oliveira and J.S. Junior Pinto leg.; light; CEMT.

***Ataenius imbricatus* (Melsheimer, 1844)**
Aphodius imbricatus Melsheimer, 1844: 136.
Ataenius sordidus Harold, 1869b: 103.
Ataenius imbricatus – Harold 1869a: 1066.

BRAZIL – 1 spec.; Est. rio Mamangua; 25–27 Oct. 2000; CEMT. – **Acre** •1 spec.; Rio Branco; CEMT • 1 spec.; same data as for preceding; Embrapa, Jun. 1987; M. Fazolin leg.; CEMT. – **Alagoas** • 2 specs; Penedo, APA Murituba Peixe; 19–25 Jul. 2019; A.B. Farias and Lasda leg.; CEMT. – **Bahia** • 1 spec.; Camaru, 13°58′ S, 39°10′ W; Dec. 2011; C.M.P. Leite leg.; pasture; CEMT • 2 specs; Caravelas; 25 Mar. 1997; Anjos and Silveira leg.; CEMT • 2 specs; Mucuri; 21 Jan. 1997; Anjos and Silveira leg.; CEMT • 1 spec.; same data as for preceding; 24 Nov. 1997; CEMT • 1 spec.; Presidente Tancredo Neves; 13°23′42″ S, 39°18′35″ W; Jan. 2011; C.M.P. Leite leg.; 253 mols. parc 57; pitfall; CEMT • 1 spec.; Una, REBIO de Una; 15°10′19″ S, 39°3′40″ W; 44 m; 10 Aug. 2016; APMS, DMT and APP leg.; light; CEMT • 1 sec.; same data as for preceding; 15°10′32″ S, 39°03′22″ W; elev. 17 m; 11 Aug. 2016; Rio Maruim; CEMT. – **Espírito Santo** • 1 spec.; Linhares; Jan. 2005; J. Santos leg.; CEMT. – **Ceará** • 1 spec.; Pacatuba, Caracanga; 2 Feb. 1986; P.M.B. Carvalho leg.; CEMT. – **Maranhão** • 1 spec.; Carolina, Fazenda Cincorá; 17–22 Oct. 2009; F. Limeira-de-Oliveira, R.O. Souza and M.B. Aguiar Neto leg.; light trap; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, Chacará Recanto das Orquídeas; 3 Oct. 2011; P.A. Bevel; CEMT • 1 spec.; Cuiabá, Boa Esperança, 15°36′31″ S, 56°03′19″ W; 28 Oct. 2021; F.Z. Vaz-de-Mello leg.; light; CEMT • 1 spec.; Cuiabá, 15°36′39″ S, 56°03′33″ W; 3 Dec. 2008; Mota and Schutz leg.; CEMT • 1 spec.; Cuiabá, Distrito Guia, Fazenda Santhidi; 15°28′47″ S, 56°7′33″ W; elev. 180 m; 11 Dec. 2009; L.R. Silva leg.; CEMT • 1 spec.; Cuiabá, Morada do Ouro; 15°34′02″ S, 26°03′25″ W; May 2021–Nov. 2021; L.A.C.S. Santos leg.; CEMT • 1 spec.; Nobres, Distrito coqueiral; 26 Jun. 2010; D. Nonato leg.; manually; CEMT • 1 spec.; Poconé; Jul. 2000; J. Lopes leg.; CEMT • 1 spec.; Poconé, Parque Nacional do Pantanal, Sede do Parque; 17°50739′ S, 57°24170′ W; 15 Nov. 2011; J.L. Silva leg.; light; CEMT • 1 spec.; Poconé, RPPN SESC, Base UFMT; 16°29′52″ S, 56°24′45″ W; 19–23 Jul. 2011; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; SESC Pantanal; 28 Jan. 1998; forest; light trap; CEMT • 1 spec.; same data as for preceding; 29 Jan. 1998; acuri palm tree; light trap; CEMT • 1 spec.; same data as for preceding; 28 Feb. 1998; forest; CEMT • 1 spec.; same data as for preceding; 28 Mar. 1998; CEMT • 1 spec.; same data as for preceding; 23 Apr. 1998; CEMT • 1 spec.; same data as for preceding; 26 Apr. 1998; CEMT • 1 spec.; same data as for preceding; 29 Dec. 1997; CEMT • 1 spec.; Sesc Pantanal; 14 May 2002; light trap; CEMT • 1 spec.; same data as for preceding; 4 Jul. 2002; CEMT • 1 spec.; same data as for preceding; 6 Sep. 2002; CEMT • 1 spec.; same data as for preceding; 5 Jul. 2003; CEMT • 1 spec.; same data as for preceding; 7 Jul. 2003; CEMT • 1 spec.; same data as for preceding; 5 Aug. 2003; CEMT • 1 spec.; same data as for preceding; 15 Sep. 2004; CEMT • 1 spec.; Poconé, Pousada Araras; 3 Dec. 1998; J.L. Moreno and T. Mestre leg.; CEMT • 1 spec.; Santo Antônio do Leverger, Porto de fora; 16°05′17″ S, 55°48′41″ W; 29–31 Dec. 2019; B. Bordin, B. Queiroz and M. Pereira leg.; CEMT • 1 spec.; Várzea Grande, Sítio Toca da Coruja; 15°33′07″ S, 56°19′07″ W; elev. 230 m; 18 Oct. 2020; A. Petini-Belini leg.; CEMT • 1 spec.; Várzea Grande; 15°40′ S, 56°10′ W; Nov. 2021–Feb. 2022; J. Arias leg.; light CEMT. – **Mato Grosso do Sul** • 1 spec.; Corumbá, Fazenda São Bento, Prox Porto Jofre; 14 Apr. 2011; R.V. Nunes leg.; light; CEMT • 1 spec.; Guia Lopes da Laguna; 5 Mar. 2008; A.R. Abot leg.; light trap; CEMT. – **Minas Gerais** • 4 specs; Águas Vermelhas; Dec.1997; A. Bello and F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; Dec. 1997; A. Bello leg.; CEMT. – **Pernambuco** • 1 spec.; Igarassu; 27 Apr. 2007; Costa leg.; CEMT • 1 spec.; Carolina; 9°08′14″ S, 40°18′7″ W; elev. 365 m; 11 Nov. 2015; J.B.G. Santos leg.; CEMT. – **Pará** • 1 spec.; Vigia, Fazenda Mangue Seco; 20–22 Jun. 2010; CEMT. – **Paraíba** • 1 spec.; São José dos Cordeiros, Fazenda

Almas; 4–5 May 2003; Valderez and Rothéa leg.; light; CEMT. – **Roraima** • 1 spec.; Amajari, EsEc Maracá; 3°20′59″ S, 61°25′22″ W; elev. 83 m; 24 Mar. 2016; A.P.M. Santos *et al.* leg.; CEMT • 1 spec.; Alto Alegre, lavrado; 2°53′45″ S, 60°39′42″ W; elev. 81 m; 5 May 2005; E.G.F. Morais leg.; CEMT • 1 spec.; Rio Uraricoera, Ilha de Maraca; 2–13 May 1987; J.A. Rafael, J.E.B Brasil and L.S. Aquino leg.; suspended trap; CEMT • 2 specs; same data as for the preceding; INPA • 1 spec.; same data as for preceding; 21–30 Nov. 1987; J.A. Rafael *et al.* leg.; Malaise trap; INPA. – **Santa Catarina** • 1 spec.; Florianópolis; 27°40′ S, 48°31′ W; Jan. 2009; Hernández and Heusi leg.; frontal dune; pitfall; CEMT. – **São Paulo** • 1 spec.; Anhembi, ESALQ/USP; E.N.L. Ferreira leg.; CEMT • 1 spec.; Cerqueira César; Dec. 1992; J. Carlos leg.; CEMT.

MEXICO – **Veracruz** • 1 spec.; Los Tuxtlas; Oct. 1997; Vaz-de-Mello leg.; CEMT • 1 spec.; Acajete, Plan de Sedeño; elev. 1950 m; 28 May 2004; Ordano and Vaz-de-Mello leg.; CEMT.

***Ataenius impressus* (Petrovitz, 1963)**
Dialytes impressus Petrovitz, 1963b: 643.
Ataenius impressus – Stebnicka 1998b: 204

BRAZIL – **Mato Grosso** • 3 specs; Diamantino, Alto Rio Arinos; Nov. 2001; E. Furtado leg.; CEMT • 3 specs; Sesc Pantanal, 15 Nov. 2001; light trap; CEMT • 11 specs; same data as for preceding; 14 May 2002; CEMT • 5 specs; same data as for preceding; 9 Aug. 2002; CEMT • 1 spec.; same data as for preceding; 7 Jul. 2003; CEMT • 1 spec.; same data as for preceding; 8 Jul. 2002; CEMT • 15 specs; same data as for preceding; 5 Aug. 2003; CEMT. – **Minas Gerais** • 1 spec.; Cordisburgo; Dec. 1993; Zagury leg.; CEMT • 1 spec.; same data as for preceding; Jan. 1997; Vaz-de-Mello leg.; CEMT.

***Ataenius morator* Harold, 1869**
Ataenius morator Harold, 1869b: 103.
Ataenius picipes Fleutiaux & Sallé, 1889: 397.
Ataenius tenebrosus Arrow, 1903: 512.
Ataenius insitivus Balthasar, 1961:125.

BRAZIL – **Acre** • 3 specs; Rio Branco, PZ-UFAC; Feb. 1997; F. Vaz-de-Mello leg.; CEMT • 3 specs; Rio Branco; Nov. 2000; M.A. Oliveira leg.; CEMT. – **Amazonas** • 1 spec.; Barcelos; 15 Jan. 1978; N.D. Penny leg.; CEMT • 1 spec,; same data as for preceding; INPA • 1 spec.; Benjamin Constant, Capim imperial; 9 Mar. 2004; P.H. Silva leg.; CEMT • 1 spec.; Itacoatiara, Fazenda Aruana, Am010, Km 215; Mar. 1997; INPA • 7 specs; same data as for preceding; 13–16 Feb. 1991; C.S. Motta, R. Andreazze and W. Kawazoe leg.; UV light; INPA • 1 spec.; same data as for preceding; 13–16 Mar. 1991; C.S. Motta, F.J.A. Peralta and Ronchi-Teles leg,; INPA • 17 specs; same data as for preceding; 14–15 May 1991; C.S. Motta *et al.* leg.; CEMT • 1 spec.; same data as for preceding; 16–17 May 1991; INPA • 1 spec.; Manaus; 6 Dec. 1977; B.C. Ratcliffe leg.; INPA • 1 spec.; Manaus, Bairro Aleixo; 3°04′40″ S, 59°59′13″ W; Res. Espanha; 8 Sep. 2015; F.S. Godoi leg.; light; CEMT • 65 specs; same data as for preceding; 24 Apr. 2017; CEMT • 52 specs; same data as for preceding; 1 May 2017; CEMT • 11 specs; same data as for preceding; 8 Sep. 2017; CEMT • 1 spec.; São Gabriel da Cachoeira, Querari Pelotão; 1°05′ N, 69°51′ W, 7–23 Apr. 1993; C.S. Motta *et al* leg.; INPA • 1 spec.; same data as for preceding; 3–4 May 1993; INPA. – **Bahia** • 1 spec.; Caravelas; 20 Jan. 1997; Anjos and Silveir leg.; CEMT • 1 spec.; Ilhéus; 14°44′32″ S, 39°05′14″ W; Oct. 2011; C.M.P. Leite leg.; 52 mosl Parc 68; pitfall; CEMT • 2 specs; Ilhéus; 14°43′23″ S, 39°07′37″ W; Oct. 2011; C.M.P. Leite leg.; 52. mols. Parc 21; pitfall; CEMT • 4 specs; Pres. Tancredo Neves; 13°22′17″ S, 39°17′41″ W; Jan. 2011; C.M.P. Leite leg.; 253 mols Parc 20; pitfall; CEMT • 1 spec.; same data as for preceding; 13°22′ S, 39°19′ W; pasture; CEMT • 1 spec.; Mucuri; 24 Oct. 1997; Anjos and Oliveira leg.; CEMT. – **Ceará** • 1 spec.; Ubajara, P.N. Ubajara, Trilha Aracitum, Rio das Minas; 3°50′21″ S, 40°54′23″ W; elev. 880 m; 13 Feb. 2013; D.M. Takiya and A.P.M. Santos leg.; plus light; CEMT. – **Maranhão** • 1 spec.; Bom Jardim, REBIO-Res. Biol. Gurupi, Basee; 5–15 Jun. 2010; J.A. Silva *et al.* leg.; light trap; CEMT. – **Mato Grosso** • 1 spec.;

Res. Papagaio, BR-364, Km 555; 2 Oct. 1984; E. Binda leg.; INPA • 26 specs; Alta Floresta, Chacará Recanto das Oquideas; 3 Oct. 2011; A. Petini-Bevell leg.; CEMT • 1 spec.; Chapada dos Guimarães, Casa do Mel; 15°22′53″ S, 55°50′35″ W; elev. 520 m; Dec. 2015; R.V. Nunes, A. Frolov and L.G. Nunes leg.; light; CEMT • 1 spec.; Chapada dos Guimarães, Rio Claro; 20 Apr. 1984; Nelsina and Costa leg.; CEMT • 3 specs; Chapada dos Guimarães, Comunidade Jão Carro; 3 Nov. 2015; M.A.S. Serrano leg.; CEMT • 2 specs; Cotriguaçú, Fazenda São Nicolau; 14 Feb. 2007; O. Peres-Filho leg.; CEMT • 23 specs; same data as for preceding; 31 Oct. 2007; light trap; CEMT • 3 specs; same data as for preceding; 4 Nov. 2007; CEMT • 2 specs; same data as for preceding; Nov. 2007; CEMT • 15 specs; same data as for preceding; 15 Dec. 2007; CEMT • 2 specs; same data as for preceding; 14 Apr. 2008; CEMT • 2 specs; same data as for preceding; 9°51′20″ S, 58°14′55″ W; Nov. 2014; R.V. Nunes and A. Asenjo leg.; light; CEMT • 9 specs; Cotriguaçú, Fazenda São Nicolau; 30 Oct. 2014; W. Chamorro leg.; black light trap; CEMT • 1 spec.; same data as for preceding; Oct. 2014; R.V. Nunes leg.; CEMT • 1 spec.; same data as for preceding; Oct. 2014; R. Stofel leg.; CEMT • 1 spec.; Cotriguaçú, Fazenda São Nicolau, base camp; 9°12′01″ S, 58°14′55″ W; elev. 220 m; 16–20 Oct. 2012; F.Z. Vaz-de-Mello leg.; manually; CEMT • 1 spec.; Cuiabá; May 2010; Vaz-de-Mello leg.; CEMT • 1 spec.; Cuiabá, Fazenda Mutuca; 15°19′31″ S, 55°58′3″ W; elev. 285 m; Nov. 2015; R.V. Nunes and A. Frolov leg.; light; CEMT • 1 spec.; Diamantino; Jan. 2001; A.M. Bello leg.; CEMT • 1 spec.; Juara; 11°06′33″ S, 57°45′20″ W; R. Santos leg.; M2l4; CEMT • 4 specs; Pixaim, Pantanal; 3 Dec. 1998; J.L. Moreno and T. Mestre leg.; CEMT • 1 spec.; Poconé; 29 Dec. 1997; forest; light trap; CEMT • 11 specs; same data as for preceding; Pousada Araras, Pantanal; 3 Dec. 1998; J.L. Moreno and T. Mestre leg.; CEMT • 1 spec.; Sesc Pantanal; 13 Oct. 2001; light trap; CEMT • 2 specs; same data as for preceding; 16 Oct. 2001; CEMT • 1 spec.; same data as for preceding; 16 Dec. 2001; CEMT • 7 specs; same data as for preceding; 14 May 2002; CEMT • 1 spec.; same data as for preceding; 4 Jul. 2002; CEMT • 2 specs; same data as for preceding; 5 Jul. 2002; CEMT • 1 spec.; same data as for preceding; 11 Jul. 2002; CEMT • 2 specs; same data as for preceding; 6 Sep. 2002; CEMT • 5 specs; same data as for preceding; 5 Aug. 2003; CEMT • 1 spec.; Poconé, Acuri palme tree; 28 Feb. 1998; light trap; CEMT • 1 spec.; Porto Estrela, EES das Araras, base camp; 15°39′09″ S, 57°12′53″ W; elev. 217 m; 8–12 Oct. 2011; Vaz-de-Mello leg.; light; CEMT • 1 spec.; Santo Antônio do Leverger, Pesquiro Casa Branca; 6 Apr. 2015; H.D. Bianchini leg.; CEMT • 1 spec.; Trindade, Polo noroeste; 1 Oct. 1984; E. Binda leg.; light; CEMT • 5 specs; same data of the preceding; INPA • 1 spec.; same data as for preceding; J. Elias leg.; CEMT • 2 specs; same data as for preceding; INPA • 1 spec.; Vila Bela, Margem Guaporé; 1 Oct. 1984; Mancolino and Sebastião leg.; light; CEMT. – **Mato Grosso do Sul** • 1 spec.; Corumbá; Fazenda são Bento; CEMT • 3 specs; Corumbá, Fazenda são Bento, Pox Porto Jofre; 14 Apr. 2011; R.V. Nunes leg.; light trap; CEMT • 3 specs; Corumbá, Fazenda São Bento; 2010. F.R. Tortato leg.; CEMT • 2 specs; Passo do Lontra; Nov. 2000; J. Raizer leg.; CEMT • 1 spec.; Santo Antônio do Leverger, São Vicente da Serra; 15°49′42″ S, 55°25′11″ W; 15–17 Dec. 2010; Tissiani and Vaz-de-Mello leg.; pasture; human dung; CEMT • 1 spec.; Três Lagoas, Horto Moeda; Feb. 2008; Uehara-Prado leg.; CEMT. – **Minas Gerais** • 2 specs; Cordisburgo, Fazenda Pontinha; Dec. 1998; Vaz-de-Mello leg.; CEMT • 1 spec.; Ipatinga; Nov. 1991; E. Grossi leg.; CEMT • 1 spec.; [Coronel] Pacheco, água limpa; 2 Mar. 1945; Gomes and Vasco leg.; CEMT • 1 spec.; Itumirim; 21°20′24″ S, 44°48′6″ W; 19 Oct. 2016; Vieira, F.Z. Vaz-de-Mello and J. Louzada leg.; light; CEMT • 1 spec.; Lavras, Campus UFLA; 15–21 Oct. 2016; P. Grossi and F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Lavras, Ponte Nova; 30 Oct. 1979; Planalsucar leg.; CEMT • 1 spec.; Viçosa; Nov. 1996; Vaz-de-Mello, Hardy and Harrison leg.; CEMT • 2 specs; Teixeiras; Nov. 1996; Hardy and Harrison leg.; CEMT. – **Pará** • 1 spec.; Cachoeira do Arari; 20 Jul. 1983; A.I. Henrique leg.; INPA • 1 spec.; Ilha Marajo; 23 Jan. 1978; INPA • 2 specs; same data as for preceding; 23 May 1978; CEMT • 17 specs; same data as for preceding; INPA • 19 specs; same data as for preceding; D. Domingo leg.; INPA • 2 specs; Jacareacanga, UHET Teles Pires; 9°20′43″ S, 56°46′31″ W; 28 Oct. 2011; Petini-Benelli leg.; CEMT • 1 spec.; same data as for preceding; Agric. M. B199 T1 P3 ARM1; CEMT • 2 specs; Tailandia; 7 Aug. 2014; J. Malta and G. Santos leg.; trap 02-D 21; CEMT. – **Paraíba** • Areia, Mata Pau de Ferro; 2 Mar. 2000; M. Avany leg.; light trap; CEMT. – **Rio de Janeiro** • 9 spec.; Angra dos Reis, Bracuí, lowland; 10–11 May 2002; Nessimian leg.; UV light;

CEMT • 1 spec.; Guapimirim; 20 Oct. 1988; CEMT • 1 spec.; Miguel Pereira; Jan. 1998; J. Carlos leg.; CEMT • 3 specs; same data as for preceding; Mar. 1998; J. Carlos leg.; CEMT • 1 spec.; Nova Friburgo; Nov. 2002; E. Grossi leg.; CEMT • 1 spec.; Nova Friburgo, Macaé de Cima; Jan. 1999; P. Grossi leg.; CEMT. – **Rondônia** • 6 specs; 62 km S of Ariquemes; Feb. 1997; Vulinec and Mello leg.; CEMT • 1 spec.; Ariquemes, Fazenda Rancho Grande, 60 km SW of Cidade; Feb. 1997; F.Z. Vaz-de-Mello leg.; CEMT • 3 specs; Cacaulandia, Fazenda Rancho Grande; Feb. 1997; Vaz-de-Mello leg.; CEMT • 1 spec.; Porto Velho, Rio das Garças, Bom Jesus; 8°49′48″ S, 63°46′45″ W; 22 Oct. 2017; D.C. Santos and K.K.C. Silva leg.; FIT; CEMT. – **Roraima** • 3 specs; Caracaraí; Jul. 1997; Vaz-de-Mello leg.; CEMT • 2 specs; Rio Uraricoera, Ilha de Maraca; 2–13 May 1987; J.A. Rafael, J.E.B. Brasil and L.S. Aquino leg.; suspended trap; CEMT • 4 specs; same data as for preceding; INPA • 1 spec.; same data as for preceding; 18–28 Aug. 1987; J.A. Rafael *et al.* leg.; light trap; INPA • 1 spec.; same data as for preceding; 21–30 Nov. 1987; Malaise trap; INPA. – **Santa Catarina** • 1 spec.; Florianópolis, Praia Pantano do Sul; 27°47′ S, 48°31′ W; Jan. 2009; Hernandez and Heusi leg.; CEMT. – **São Paulo** • 2 specs; Cerqueira César; Dec. 1993; J.L. Carlos leg.; CEMT • 1 spec.; same data as for preceding; Dec. 1996; CEMT. – **Tocantins** • 1 spec.; Araguaína, Cimbá, BR-70; Dec. 2015; V.E. Sandoval leg.; CEMT.

FRENCH GUIANA – 3 specs; Cayenne, Montagne des Chevaux (MCV); 4°44′56″ N, 52°26′28″ W; elev. 75 m; 27 Jan. 2013; SAEG leg.; light (GEML); CEMT • 1 spec.; same data as for preceding; 16 Feb. 2013; SAEG leg.; CEMT.

PERU – **Loreto** • 1 spec.; 21 km W of Iquitos; 10 Jul. 2001; M. Curoe and Callegari leg.; CEMT.

***Ataenius petrovitzi* Balthasar, 1960**
Ataenius petrovitzi Balthasar, 1960: 6–7.
Ataenius auropunctatus Petrovitz, 1973: 166.

BRAZIL – **Amazonas** • 5 specs; Iranduba, Rio Solimões, Ilha de Marchantaria, lowland 3°15′ S, 59°58′ W; 12–14 Nov. 1980; J. Adis leg.; standing crop; CEMT • 12 specs. same data as for preceding; INPA • 4 specs; same data as for preceding; 24 Feb. 1981; light; CEMT • 25 specs; same data as for preceding; INPA • 1 spec.; same data as for preceding; 29 Apr. 1981; CEMT • 2 specs; same data as for preceding; INPA • 2 specs; same data as for preceding; 16 Jul. 1981; INPA • 1 spec.; same data as for preceding; 14 Aug. 1981; INPA • 1 spec.; same data as for preceding; 18 May 1981; CEMT. – **Mato Grosso** • 1 spec.; Sesc Pantanal; 5 Jul. 2003; light trap; CEMT. – **Mato Grosso do Sul** • 3 specs; Corumbá, Fazenda São Bento, Prox Porto Jofre; 14 Apr. 2011; R.V. Nunes leg.; light; CEMT.

ECUADOR – **Napo** • 1 spec.; elev. 250 m; 8 Jun. 1997; G. Onore leg.; light trap; CEMT.

***Ataenius pseudostercorator* Stebnicka, 2003**
Ataenius pseudostercorator Stebnicka, 2003e: 236–237.

BRAZIL – **Mato Grosso** • 1 spec.; Cuiabá, Boa Esperança; 24–27 Oct. 2016; F.Z. Vaz de Mello leg.; manually; CEMT • 1 spec.; Sesc Pantanal; 14 May 2002; light trap; CEMT.

***Ataenius scabrelloides* Petrovitz, 1962**
Ataenius scabrelloides Petrovitz, 1962: 131.
Ataenius superficialis Cartwright, 1974: 30.

BRAZIL – **Bahia** • 5 specs; Caravelas; Mar. 1996; R. Diniz leg.; CEMT. – **Espírito Santo** • 2 specs; Pedro Canario; May 1997; R. Diniz; leg.; CEMT.

***Ataenius schmidti* Stebnicka, 2003**
Ataenius schmidti Stebnicka, 2003e: 240.
Ataenius argillaceous Schmidt, 1916: 103.

BRAZIL – **Amazonas** • 1 spec.; Manaus, Feb. 1992; B. Nelson leg.; INPA. – **Mato Grosso** • 3 specs; Cuiabá; 15°16′45″ S, 56°0′6″ W; 7 Dec. 2015; A. Frolov and L. Akhmetova leg.; CEMT • 1 spec.; Varzea Grande, Bairro Almeida, urban area next to Rio Cuiabá; 29 Nov. 2015; R.E. Vicente leg.; CEMT • 1 spec.; Sesc Pantanal; 14 May 2002; light trap; CEMT • 1 spec.; Poconé; 29 Jan. 1998; acuri palm tree; light trap; CEMT • 1 spec.; same data as for preceding; Jul. 2000; J. Lopes leg.; CEMT. – **Mato Grosso do Sul** • 3 specs; Corumbá, Fazenda São Bento, Prox Porto Jofre; 14 Apr. 2011; R.V. Nunes leg.; light; CEMT. – **Roraima** • 1 spec.; Rio Uraricoera, Ilha de Maraca; 2–13 May 1987; J.A. Rafael, J.E.B Brasil and L.S. Aquino leg.; suspended trap; INPA • 2 specs; same data as for preceding; 21–30 Nov. 1987; J.A. Rafael *et al.* leg.; Malaise trap; CEMT, INPA.

***Ataenius stercorator* (Fabricius, 1775)**
Scarabaeus stercorator Fabricius, 1775: 20.
Ataenius opacus Harold, 1867a: 100.
Ataenius stercorator – Bates 1887: 96.

BRAZIL – **Amapá** • 2 specs; Macapa; 16 May 1980; Elias and Penny leg.; CEMT • 2 specs; same data as for preceding; INPA. – **Amazonas** • 1 spec.; Manaus, Est. Aml, Km 134; 10 Aug. 1968; E.V. Silva and A. Faustino leg.; INPA. – **Bahia** • 2 specs; Caravelas; Mar. 1997; R.D. Silveira leg.; CEMT. – **Espírito Santo** • 2 specs; São Mateus; Dec. 1996; J.N.C. Louzada leg.; CEMT. – **Mato Grosso** • 1 spec.; Chapada dos Guimarães; 15°24′31″ S, 55°45′53″ W; 2 Dec. 2015; A. Frolov and L. Akhmetova leg.; light; CEMT • 1 spec.; Sesc Pantanal; 13 Apr. 2002; light trap; CEMT • 1 spec.; same data as for preceding 8 Jul. 2003; armadilha pano; CEMT • 1 spec.; same data as for preceding; 5 Aug. 2003; light trap; CEMT. – **Mato Grosso do Sul** • 1 spec.; Guia Lopes da Laguna; 15 Feb. 2007; A. Abot leg.; light trap; CEMT. – **Minas Gerais** • 1 spec.; 20 km E of Viçosa; 5 Dec. 1998; J.L. Moreno and T. Mestre leg.; CEMT • 1 spec.; Cordisburgo, F. Pontinha; Jul. 1994; de Mello leg.; CEMT • 1 spec.; Ipatinga; Sep. 1998; E. Grossi leg.; CEMT • 1 spec.; Mariana; 7 Dec. 1998; J.L. Moreno and T. Mestre leg.; CEMT • 3 specs; Teixeiras; Nov. 1996; Hardy and Herrison leg.; CEMT. – **Pará** • 1 spec.; Ilha Marajo; 23 May 1978; INPA. – **Paraná** • 1 spec.; São Jose dos Pinhais, Bairro São Marcos; 25°36′40″ S, 49°10′03″ W; elev. 894 m; 26 Oct. 2014; F.M. Neves leg.; CEMT. – **Rio Grande do Sul** • 2 specs; Bagé, Embrapa Pecuaria; Jan. 2006; L.D. Audino leg.; pitfall; CEMT • 1 spec.; Leões farm; 30°59′12″ S, 54°29′47″ W; 20–26 Oct. 2011; R.M. Moraes leg.; pitfall trap (human + pig dung); CEMT • 1 spec.; Santa Cruz do Sul, Cerro Alegre; 29°48′02″ S, 52°19′39″ W; 14 Jan. 2012; R. Bohn leg.; grass field (P2); pitfall; CEMT. – **Santa Catarina** • 1 spec.; Itapema; Jan. 1993; J. Carlos leg.; CEMT • 1 spec.; Florianopolis; Oct. 2001; P. Grossi leg.; CEMT • 3 specs; same data as for preceding; Nov. 2001; CEMT. – **São Paulo** • Cujuina Cia; Feb. 1995; J. Carlos leg.; CEMT. – **Tocantins** • 1 spec.; Palmas; 13 Nov. 2001; P1 D COL. Not. Equipe de Resgate UHE Lajeado leg.; CEMT.

URUGUAY – **Florida** • 1 spec.; Florida, Cerro Colorado, Estacion Esperimental del Sul; 19 Feb. 1993; CEMT. – **Rivera** • 1 spec.; Vichadero, El. Pino farm; 21–27 Nov. 2011; R.M. Moraes leg.; pitfall trap baited (human + pig dung); CEMT.

***Ataenius tuberculatus* Schmidt, 1911**
Ataenius tuberculatus Schmidt, 1911: 15.

BRAZIL – **Mato Grosso** • 1 spec.; Estação Ecológica de Taiamã; 11 Dec. 1981; M. Serrano leg.; CEMT • 1 spec.; Poconé; Jul. 2000; J. Lopes leg.; CEMT • 1 spec.; Poconé, Pousada Araras; 3 Dec. 1998; J.L. Moreno and T. Mestre leg.; Pantanal; CEMT • 1 spec.; Poconé, RPPN SESC, Base UFMT; 16°29′52″ S, 56°24′45″ W; 19–23 Jul. 2011; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Sesc Pantanal; 13 Apr. 2002; light trap; CEMT • 1 spec.; Varzea Grande, Cuiabá, Parque de Exposição; 20 Jun. 1972; Williams and Roger leg.; blacklight trap; CEMT • 3 specs; same data as for preceding; 1 Jul. 1972; CEMT • 1 spec.; Trindade, U.B.S; 1 Oct. 1984; E. Binda leg.; light trap; northwestern Polo; INPA • 1 spec.; same data as for preceding; J. Elias leg.; CEMT.

Collecting information

Specimens were collected at altitudes ranging from 220 to 950 metres. Specimens are commonly collected with UV light traps, with traps baited with equine and bovine dung and with decomposing fruits. Specimens can be found in mangrove areas, pastures and forests (Stebnicka 2003e).

Remarks

The *Ataenius imbricatu*s group has 19 recognized species and 12 are known to occur in Brazil (Stebnicka 2003e). A key for species of this group can be found in Stebnicka (2003e).

Ataenius nugator group
Fig. 12A–C, 41A

Diagnosis

Length 3.0–4.8 mm. Body punctate, glossy, piceous. Head punctate, may present transverse wrinkles; clypeus emarginate. Pronotum with fine and coarse punctures; coarse punctures scattered on disc, extremely close near anterior and posterior angles; laterally and posteriorly with marginal line; posterior angles sinuate. Elytra with interstriae near posterior margin and laterally convex; interstriae 7–10 with closer and larger punctures. Metaventrite plate bound by lines of coarse punctures. Metatibia with acuminate accessory spine.

Material examined

***Ataenius nugator* group sp.**

BRAZIL – **Amazonas** • 2 specs; Benjamin Constant, Guanabara II; 10 Mar. 2004; P.H. Silva leg.; CEMT. – **Mato Grosso** • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 15 Dec. 2007; O. Peres-Filho leg.; CEMT. – **Minas Gerais** • 1 spec.; Ijací, Faz FAEPE; Dec. 2002; J. Louzada leg.; CEMT. – **Santa Catarina** • 6 specs; Florianópolis, Praia Pantano do Sul; 27°47′ S, 48°31′ W; Oct. 2008; M.I.M. Hernandez *et al.* leg.; frontal dune; pitfall; CEMT.

Collecting information

Specimens can be collected with light traps (Stebnicka 2001c).

Remarks

The *Ataenius nugator* group has 15 recognized species but *Ataenius nugator* Harold, 1880 is the only species of this group in Brazil (Stebnicka 2001c). *Ataenius nugator* was first recorded by Stebnicka (2001c) in Rondônia State. A key for species of this group can be found in Stebnicka (2001c).

Ataenius perforatus group
Figs 9E–F, 42A

Diagnosis

Length 5.0–7.0 mm. Body large, elongate, dorsally glabrous, glossy, piceous. Head with punctures of two sizes, fine punctures inconspicuous in between coarse ones; coarser punctures closer on frons; clypeus sinuate; ventral anterior edge of clypeus downward bent, triangularly acuminate; lateral angles rounded, weakly wrinkled near margin. Pronotum with punctures of two sizes; fine punctures inconspicuous amidst coarser punctures; coarse punctures concentrated laterally; lateral margins fringed or not by setae; posterior angles sinuate or not. Scutellum foveate anteriorly. Elytral interstriae convex. Accessory spine of metatibiae present or not, if present, long and acuminate.

Material examined

***Ataenius lanei* Petrovitz, 1973**
Ataenius lanei Petrovitz, 1973: 157–158.

BRAZIL – **Rio de Janeiro** • 2 specs; Macaé de Cima; Nov. 1998; F.Z. Vaz-de-Mello and E. Grossi leg,; CEMT.

***Ataenius opatrinus* Harold, 1867**
Ataenius opatrinus Harold, 1867a: 82.
Ataenius narialis Petrovitz, 1973: 173–174.
Ataenius woodruffi Cartwright, 1974: 72.
Ataenius paraperforatus Deloya & Ibáñez-Bernal, 2000: 318.

BRAZIL – **Espírito Santo** • 1 spec.; Venda nova do Imigrante; Dec. 2001; F.Z. Vaz-de-Mello leg.; CEMT. – **Minas Gerais** • 1 spec.; Conceição dos Ouros, Rio Sapucaí; Jan. 2003; Neto and G.P. Almeida leg.; CEMT • 1 spec.; Itamonte; Sep. 1999; D. Takyia leg.; CEMT. – **Rio de Janeiro** • 3 specs; Nova Friburgo; Dec. 1996; E. Grossi and P. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Jan. 1999; P. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Nov. 2002; E. Grossi leg.; CEMT • 1 spec.; Nova Friburgo, Conquista; Jan. 2004; E. Grossi leg.; CEMT. – **Rio Grande do Sul** • 1 spec.; Bagé, Leões farm; 30°59′12″ S, 54°29′47″ W; 20–26 Oct. 2011; R.M. Moraes leg.; pitfall trap baited (human+pig dung); CEMT • 1 spec.; same data as for preceding; 30°59′13″ S, 54°29′47″ W; CEMT. – **Santa Catarina** • 1 spec.; Urubici (Parna S.JQ); 28°09′35″ S, 49°37′52″ W; 21 Jul. 2015; P.G. da Silva leg.; cow dung; CEMT • 1 spec.; Urubici, P.N. São Joaquim; 16–19 Mar. 2012; Grossi, Parizotto and Leivas leg.; CEMT. – **São Paulo** • 2 specs; São Miguel Arcanjo, P.E. Carlos Botelho; 24°03′59″ S, 47°59′39″ W; elev. 580 m; 11 Jun. 2012; M. Boutefeu leg.; *Tapirus* feces; CEMT • 1 spec.; Serra da Bocaina, Fazenda Lageado; elev. 1700 m; May 1951; Delcy and Machado leg.; CEMT.

MEXICO – **Chiapas** • 1 spec.; Palenque; Jun. 2004; F. Nicolalde leg.; CEMT.

URUGUAY – **Rivera** • 1 spec.; Rivera, Richadero, El Cerro Farm; 21–27 Nov. 2011; R.M. Moraes leg.; pitfall trap baited (human + pig dung); CEMT • 1 spec.; Rivera, COFUSA; 30°57′36″ S, 55°29′53″ W; 3–11 Oct. 2011; R.M. Moraes leg.; pitfall trap baited (human + pig dung); CEMT • 1 spec.; Rivera, Bodegas Carrau farm; 3–11 Oct. 2011; R.M. Moraes leg.; pitfall trap baited (human + pig dung); CEMT.

***Ataenius perforatus* Harold, 1867**
Ataenius perforatus Harold, 1867b: 98.

BRAZIL – **Minas Gerais** • 1 spec.; Guanhães; 25 May 1991; C.Z. [unreadable] leg.; CEMT.

PANAMA – **Chiriquí** • 3 specs; 2 km S of Boque; elev. 1400 m; 24 Jul. 1998; M. Hardy leg.; CEMT.

VENEZUELA – **Yaracuy** • 1 spec.; Bolívar, Aroa; 10°20′24″ N, 68°50′06″ W; elev. 1373 m; 19 Jul. 2009; M. Asmüssen, P. Colomenares and H. Martínez leg.; human feces; CEMT • 2 specs; same data as for preceding; 10°23′11″ N, 68°50′49″ W; elev. 1380 m; CEMT • 4 specs; same data as for preceding; 10°23′07″ N, 68°50′45″ W; elev. 1410 m; CEMT.

Collecting information

Members of this group can be found in grasslands and forests. Specimens can be collected with light traps and are attracted to human, bovine, equine and *Tapirus* feces (Stebnicka 2001c).

Remarks

The *Ataenius perforatus* group has six recognized species, but only three species are registered in Brazil (Stebnicka 2001c). A key for species of this group can be found in Stebnicka (2001c).

Ataenius scutellaris group
Figs 10C, 42B

Diagnosis

Length 2.5–5.3 mm. Body oblong, dorsally glabrous, light reddish testaceous to piceous. Head punctate; clypeus sinuate, margin medially bent downward, acuminate, lateral angles rounded. Pronotum densely and coarsely punctate, punctures larger and closer laterally; lateral margins may or may not be fringed by setae. Scutellum anteriorly foveolate. Elytral interstriae convex or not, variably punctured. Ventral surface glabrous with coarse punctures. Abdominal ventrites weakly strigate. Metatibiae without accessory spine.

Material examined

***Ataenius noronhai* Stebnicka, 2007**
Ataenius noronhai Stebnicka, 2007c: 55.

BRAZIL – **Pernambuco** • 1 spec.; Fernando de Noronha, Sancho; 20–28 Feb. 2020; Grossi and Rafael leg.; light; CEMT • 1 spec.; same data as for preceding; southeast mangroove; CEMT.

***Ataenius pereirai* Petrovitz, 1970**
Ataenius pereirai Petrovitz, 1970: 235–236.

BRAZIL – **Distrito Federal** • 4 specs; Brasília; elev. 1100 m; Jan. 2001; N. Degallier leg.; light; CEMT • 1 spec.; same data as for preceding; Feb. 2001; CEMT • 1 spec.; same data as for preceding; Oct. 2000; CEMT. – **Goiás** • 1 spec.; Bom Jesus; Nov. 1996; J. Carlos leg.; CEMT. – **Mato Grosso** • 1 spec.; Cotriguaçu, Fazenda São Nicolau; Nov. 2007; O. Peres-Filho leg.; CEMT • 1 spec.; Diamantino, Vale da Solidão; 7 Feb. 2011; E. Furtado leg.; CEMT • 1 spec.; Poconé; 22 Feb. 1998; light trap; CEMT. – **Mato Grosso do Sul** • 1 spec.; Campo Grande; 1990–1992; I. Bianchin leg.; CEMT. – **Minas Gerais** • 2 specs; Águas Vermelhas; Dec. 1997; A. Bello and Vaz-de-Mello leg.; CEMT • 8 specs; Cordisburgo, Fazenda Pontinha; Dec. 1993; F.Z. Vaz-de-Mello leg.; CEMT • 8 specs; same data as for preceding; Jan. 1996; CEMT • 1 spec.; same data as for preceding; Jan. 1998; CEMT • 1 spec.; same data as for preceding; Jan. 1999; Falqueto and Vaz-de-Mello leg.; CEMT • 1 spec.; Lavras; 21°19′56″ S, 44°58′08″ W; 22 Mar. 2008; M.R. Santos and D.L.H. Takahashi leg.; CEMT • 1 spec.; same data as for preceding; 21°19′59″ S, 44°58′17″ W; CEMT • 2 specs; same data as for preceding; 21°20′03″ S, 44°58′30″ W; CEMT • 1 spec.; Monte Claro; Jan. 2000; Louzada and Louzada leg.; Cerrado; CEMT • 6 specs; Santa Barbara; 5 Jan. 1994; J.C. Zanuncio leg.; light trap; CEMT • 1 spec.; Três Marias; Jan. 1993; CEMT. – **Rio de Janeiro** • 1 spec.; Nova Friburgo; Dec. 1998; P. Grossi leg.; CEMT. – **Tocantins** • 2 specs; Santa Isabel do Morro, Ilha do Bananal; 5 Dec. 1978; Bello leg.; CEMT • 1 spec.; same data as for preceding; 16 Apr. 1979; CEMT.

***Ataenius scutellaris* Harold, 1867**
Ataenius scutellaris Harold, 1867a: 82.
Ataenius frater Arrow, 1903: 512.
Ataenius auberti Paulian, 1937: 42.

BRAZIL – **Acre** • 1 spec.; Rio Branco; CEMT • 1 spec.; Rio Branco, PZ-UFAC; Feb. 1997; Vaz-de-Mello leg.; CEMT. – **Amazonas** • 1 spec.; Itacoatiara, Fazenda Aruana, Am010, Km 215; 20–23 Aug. 1990; C.S. Motta, F.J.A. Peralta and B. Ronchi-Teles leg.; UV light; CEMT • 13 specs; same data as for preceding; 18–21 Sep. 1990; C.S. Motta, R.L.M. Ferreira and R. Andreazze leg.; CEMT • 1 spec.; same data as for preceding; INPA • 7 specs; same data as for preceding; 12–15 Jan. 1991; C.S. Motta, H. Misquita and R. Andreazze leg.; INPA • 9 specs; same data as for preceding; 13–16 Feb. 1991; UV light; C.S. Motta, R. Andreazze and U. Kawazoe leg.; INPA • 8 specs; same data as for preceding; Mar. 1991; C.S. Motta, F.J.A. Peralta and B. Rochin-Teles leg.; CEMT • 15 specs; same data as for

preceding; 14–15 May 1991; C.S. Motta *et al.* leg.; INPA • 15 specs; same data as for preceding; 16–17 May 1991; INPA • 2 specs; same data as for preceding; 22–23 Jul. 1990; C.S. Motta *et al.* leg.; CEMT • 1 spec.; Manaus, INPA-base camp; 8 Jun. 1976; A.P.A Luna Dias leg.; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, CEPLAC; 2 Oct. 2009; V. Gonçalvez leg.; fezes antas, por cima; CEMT • 1 spec.; Chapada dos Guimarães; 15°24′31″ S, 55°45′53″ W; 2 Dec. 2015; A. Frolov and L. Akhemetova leg.; light; CEMT • 1 spec.; Chapada dos Guimarães; 27 Apr. 2001; A.F. Ramos leg.; light trap; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 14 Feb. 2007; O. Peres-Filho leg.; CEMT • 1 spec.; same data as for preceding; 15 Dec. 2007; CEMT • 2 specs; Cotriguaçu, Fazenda São Nicolau; 9°49′08″ S, 58°15′40″ W; 19–24 Oct. 2012; F.Z. Vaz-de-Mello leg.; PPBIO P1, FIT; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 18 Oct. 2014; W. Chamorro leg.; CEMT • 1 spec.; Poconé, Pousada das Araras; 3 Dec. 1998; J.L. Moreno and T. Mestre leg.; Pantanal; CEMT. – **Minas Gerais** • 1 spec.; Santa Barbara; 17 Feb. 1994; J.C. Zanuncio leg.; CEMT. – **Pará** • 2 specs; Jacarecanga; 9°12′21″ S, 56°57′34″ W; Feb. 2015; M.A.L. Bragaça leg.; pitfall; CEMT • 1 spec.; same data as for preceding; INTERD1; 9°15′30″ S, 56°48′20″ W; Jan. 2016; M.A.L. Bragaça leg.; pitfall; CEMT. – **Rondônia** • 3 specs; 62 km S of Ariquemes; Feb. 1997; Vulinec-Mello leg.; CEMT.

ECUADOR – **Manabi** • 1 spec.; Manta; elev. 5 m; 23 Jan. 1999; A. Pérez leg.; CEMT. – **Napo** • 1 spec.; Yasuni, Bloque; 16 Aug. 1996; F. Bersosa leg.; light trap; CEMT. – **Pastaza** • 1 spec.; Mera, 24 May [locality]; 1°20′ S, 78°10′ W; elev. 1140 m; 6 Apr. 1996; M. López leg.; CEMT.

FRENCH GUIANA • 1 spec.; Cayenne, Nouragues, Inselberg; 4°05′ N, 52°41′ W; elev. 411 m; 9 Sep. 2010; SEAG leg.; FIT; CEMT • 1 spec.; 15 Nov. 2011; SEAG leg.; FIT (V); CEMT • 1 spec.; St Laurent de Maroni, Bélvédère de Saül; 3°37′22″ S, 53°12′57″ W; elev. 326 m; 22 Mar. 2011; SEAG leg.; CEMT • 1 spec.; same data as for preceding; 30 Jun. 2011; CEMT • 1 spec.; same data as for preceding; 13 May 2011; CEMT • 3 specs; same data as for preceding; elev. 360 m; 15 Sep. 2011; FIT (V); CEMT.

PERU – **Loreto** • 1 spec.; 21 km W of Iquitos; 10 Jul. 2001; Curoeand M. Callegari leg.; CEMT.

***Ataenius skelleyi* Stebnicka, 2007**
Ataenius skelleyi Stebnicka, 2007c: 54.

Paratype
BRAZIL • 1 spec.; "[yellow paper, printed] PARATYPE/*Ataenius*/*skelleyi* m./Dt.Z.Stebnicka. // [white paper, printed] BRAZIL: Rondônia, 62/ km.SW. Ariquemes, nr. Fdza Rancho Grande/ 8-20-XI-1994; J. Eger,/ C. O' Brien; black light // [white paper, printed] *Ataenius/skelleyi/*Stebnicka. // [white paper, printed] Q.R code to the left, CEMT/CUIABÁ/00122412"; CEMT.

***Ataenius tarumensis* Stebnicka, 2007**
Ataenius tarumensis Stebnicka, 2007c: 63–64.

BRAZIL – **Amazonas** • 1 spec.; Rio Tarumã-mirim, NW Manus; 8 Mar. 1976; J. Adis leg.; CEMT.

Collecting information

Specimens were found at altitudes from 5 to 1100 metres. Members of this group are attracted to light and feces of humans, *Bos* Linnaeus, 1758 and *Tapirus*. Some species outside of Brazil were collected in bat guano and in forest litter (Stebnicka 2007c).

Remarks

The *Ataenius scutellaris* group has 15 recognized species, five are found in Brazil (Stebnicka 2007c). A key for species of this group can be found in Stebnicka (2007c).

Ataenius strigatus group
Figs 10F, 43A

Diagnosis

Length 3.4–6.0 mm. Body elongate, glabrous, glossy and piceous. Head with fine and coarse punctures, transverse wrinkles variably developed; clypeus sinuate, lateral angles rounded. Pronotum wide, with variable punctures. Elytra with variable sculpture, shagreened or glossy; interstriae convex or flat. Ventral surface glossy or shagreened. Anterior margin of metafemur normally with a fringe of setae. Accessory spine of metatibiae present or not.

Material examined

***Ataenius impiger* Schmidt, 1916**
Ataenius impiger Schmidt, 1916: 104.
Ataenius laterigranulatus Balthasar, 1941c: 166.
Ataenius perpunctatus Balthasar, 1961: 124.

ARGENTINA – **Formosa** • 1 spec.; 50 km NW of Clorinda, PN Río Pilcomavo; 19 Dec. 1990; S. Peck and J. Peck leg.; UV; CEMT.

BRAZIL – **Amazonas** • 1 spec.; Careiro da Várzea, Ilha Curarí S. Manaus; 5 Feb. 1976 J. Adis leg.; CEMT • 1 spec.; Iranduba, Ilha de Marchantaria, Rio Solimões; 3°15′ S, 59°58′ W; 6 Jan. 1981; J. Adis leg.; várzea [lowland]; INPA • 1 spec.; same data as for preceding; 2 Sep. 1981; INPA • 1 spec.; same data as for preceding; 14 Sep. 1981; CEMT • 4 specs; same data as for preceding; INPA • 1 spec.; Manaus; 6 Dec. 1977; B.C. Ratcliffe leg.; CEMT • 1 spec.; same data as for preceding; INPA • 1 spec.;31°05′ S, 59°58′ W; 2–4 Mar. 1998; S. Golovatch leg.; CEMT • 20 specs; same data as for preceding; INPA • 1 spec.; Itacoatiara, Fazenda Aruana, Am 010, Km 215; 20–23 Aug. 1990; C.S. Motta, F.J.A. Peralth and Roncai-Teles leg.; INPA • 1 spec.; Manaus, Japiim–Cohabam; 14 Jun. 1976; J. Adis leg.; INPA • 1 spec.; Manaus, Rio Tarumá Mirim; 3°02′ S, 60°17′ W; 26 May 1983; terra firme [solid land]; INPA. – **Distrito Federal** • 1 spec.; Brasilia, Plano Piloto; 10 Oct. 1988; Bello leg.; CEMT. – **Mato Grosso** • 2 specs; Chapada dos Guimarães, Trilha Casa do Mel; 15°22′53″ S, 55°50′35″ W; elev. 520 m; Dec. 2015; R.N. Nunes, J. Cabra and M. Rossini leg.; light; CEMT • 1 spec.; Cuiabá, Boa Esperança; Dec. 2009; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Cuiabá; 15°35′21″ S, 56°01′46″ W; elev. 183 m; Sep. 2015; R.V. Nunes and B.F. Becker leg.; CEMT • 1 spec.; same data as for preceding; Nov. 2009; F.Z. Vaz-de-Mello leg.; CEMT • 5 specs; Poconé, RPPN SESC, Base UFMT; 16°29′52″ S, 56°24′45″ W; 19–23 Jul. 2011; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Porto Estrela, Heliporto; 15°39′19″ S, 57°12′50″ W; 21 Oct. 2017; R.J.P. Machado and R. Nunes leg.; CEMT • 2 specs; Santo Antônio do Leverger, Serra de São Vicente; 15°52′39″ S, 55°22′28″ W; 22 Feb. 2013; A. Petin and Benell leg.; CEMT • 1 spec.; Sesc Pantanal; 16 Nov. 2001; light trap; CEMT. – **Mato Grosso do Sul** • 1 spec.; Corumbá, Fazenda São Bento, Prox. Porto Jofre; 14 Apr. 2011; R.N. Nunes leg.; light; CEMT • 1 spec.; Guia Lopes da Laguna; 15 Nov. 2007; A. Abot leg.; light trap; CEMT. – **Minas Gerais** • 1 spec.; Águas Vermelhas; Dec. 1997; A. Bello; CEMT • 1 spec.; Cordisburgo, Fazenda Pontinha; Dec. 1998; Vaz-de-Mello leg.; CEMT. – **Rio Grande do Sul** • 1 spec.; Eldorado do Sul, EEA-UFRGS; Oct. 1996; Silva and Carvalho leg.; CEMT. – **Rio de Janeiro** • 1 spec.; Parque Nacional Itatiaia; 12 Dec. 1989; Bello leg.; CEMT • 1 spec.; Nova Friburgo; Nov. 2002; E.J. Grossi leg.; CEMT • 1 spec.; Macaé, PN Jurubatiba; 22°16′ 40″ S, 41°41′35″ W; elev. 3 m; 1 May 2007; J.A. Rafael and F.F. Xavier leg.; restinga vegetation; light; INPA.

COLOMBIA – **Antioquia** • 1 spec.; Medellín; CEMT.

PARAGUAY – **Concepción** • 1 spec.; San Carlos del Apa; 22°14′04″ S, 5°17′48″ W; 30 Oct. 2002; B. Garcete leg.; CEMT.

***Ataenius purator* Harold, 1868**
Ataenius purator Harold, 1868: 85.
Ataenius gothi Balthasar, 1933: 9.
Ataenius gagates Petrovitz, 1963a: 317.
Ataenius splendens Endrödi, 1962: 52.

BRAZIL – **Amazonas** • 1 spec.; Autazes; 2–8 Aug. 1981; E. Brasil leg.; CEMT • 1 spec.; Iranbudá, Ilha de Marchantaria; 20–23 Feb. 1990; C.R.V. Fonseca leg.; CEMT • 1 spec.; same data as for preceding; 3°15′ S, 59°58′ W; 2 Sep. 1981; J. Adis leg.; INPA • 1 spec.; same data as for preceding; 2 Oct. 1981; J. Adis leg.; INPA • 4 specs; same data as for preceding; 4 Nov. 1981; CEMT • 19 specs; same data as for preceding; INPA • 10 specs; same data as for preceding; 17 Nov. 1981; CEMT • 298 specs; same data as for preceding; INPA • 3 specs; same data as for preceding; 2 Dec. 1981; CEMT • 29 specs; same data as for preceding; INPA • 1 spec.; same data as for preceding; 21 Dec. 1981; CEMT • 3 specs; same data as for preceding; INPA • 1 spec.; same data as for preceding; 22 Jan. 1982; CEMT. – **Mato Grosso** • 1 spec.; Cuiabá, Boa Esperança; 24–27 Oct. 2016; F.Z. Vaz-de-Mello leg.; manually; CEMT • 1 spec.; Cuiabá, CPA IV; 11 May 2010; Marcondes and Eliane leg.; manually; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 30 Oct. 2014; W. Chamorro leg.; blacklight trap; CEMT • 13 specs; Pixaim, Pantanal; 3 Dec. 1998; J.L. Moreno and T. Mestre leg.; CEMT • 1 spec.; Poconé, Serra das Araras; 3 Dec. 1998, J.L. Moreno and T. Mestre leg.; Pantanal; CEMT • 1 spec.; Poconé, RPPN SESC, Base UFMT; 16°29′52″ S, 56°24′45″ W; 19–23 Jul. 2011; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Primavera do Leste; 10 Jun. 2007; Benelli leg.; CEMT • 2 specs; Sesc Pantanal; 14 May 2002; light trap; CEMT • 7 specs; same data as for preceding; 8 Aug. 2002; CEMT • 1 spec.; same data as for preceding; 6 Sep. 2002; CEMT • 1 spec.; same data as for preceding; 4 Jul. 2002; CEMT • 1 spec.; same data as for preceding; 5 Aug. 2003; CEMT • 2 specs; same data as for preceding; 15 Sep. 2004; CEMT. – **Minas Gerais** • 1 spec.; Guanhães; 7 Dec. 1993; J.C. Zanuncio leg.; CEMT • 1 spec.; Ijací, Faz FAEPE; Nov. 2002; J. Louzada leg.; CEMT • 1 spec.; Visconde Rio Branco; Jan. 1998; W. Zikan leg.; CEMT. – **Roraima** • 9 specs; Amajari, Rio Uraricoera, Ilha de Maraca; 2–13 May 1987; J.A. Rafael, J.E.B Brasil and L.S. Aquino leg.; suspended trap; CEMT, INPA • 1 spec.; same data as for preceding; 18–28 Aug. 1987; J.A. Rafael *et al.* leg.; light trap; INPA • 1 spec.; same data as for preceding; 21–30 Nov. 1987; Malaise trap; INPA. – **Rio de Janeiro** • 2 specs; Itaguaí, Km 47 Estr. Rio; 30 Oct. 1945; Wygod leg.; CEMT. – **Rio Grande do Sul** • 1 spec.; Eldorado do Sul, EEA-UFRGS; 11 Oct. 1996; Carvalho and Silva leg.; arm. lum; CEMT. – **Santa Catarina** • 1 spec.; Urubici; 28°08′ S, 49°38′ W; 6 Feb. 2008; M. Wuerges leg.; pitfall bait; CEMT. – **São Paulo** • 1 spec.; 2 Nov. 1914; Melxei leg.; CEMT.

COLOMBIA – **Meta** • 1 spec.; San Martín, San Francisco; elev. 335 m; Apr. 2006; J. Noriega leg.; directa; CEMT.

Collecting information

The group can be found at altitudes ranging from 183 to 1100 metres. Specimens were collected with UV and are attracted to cow dung. Specimens can be found in savanna regions, pastures, flooded plains and forest (Stebnicka & Lago 2005).

Remarks

The *Ataenius strigatus* group has 17 recognized species, two occur in Brazil (Stebnicka & Lago 2005). A key for species of this group can be found in Stebnicka & Lago (2005).

Ataenius strigicauda group
Figs 11A–D, 43B

Diagnosis

Length 4.5–6.0 mm. Body elongate, piceous. Head with punctures variable, punctures normally coarse and distinctly grouped on frons; clypeus with transverse wrinkles variably developed, medially sinuate,

lateral angles rounded. Pronotum with punctures fine and coarse; lateral margins fringed with setae. Elytra with interstriae 8–10, at least near lateral margins, with larger, more evident and coarse punctures, compared with interstriae of disc. Ventral surface glossy, shining. Metaventral plate with group of large and coarse punctures near posterior margin of mesocoxa (except for *Ataenius picinus*). Metatibiae with acuminate accessory spine, its length surpassing apical fringe of setae.

Material examined

***Ataenius columbicus* Harold, 1880**
Ataenius columbicus Harold, 1880: 39–40.
Ataenius laterigranosus Balthasar, 1947: 51.
Ataenius tesari Balthasar, 1947: 50.
Ataenius fastus Petrovitz, 1970: 236.

ARGENTINA – **Tucumán** • 1 spec.; Sierra de San Javier, Horco Molle; Mar. 2002; F.Z. Vaz-de-Mello leg.; CEMT.

BRAZIL – **Bahia** • 3 specs; Jan. 2005; A.F. Brito and G.R. Ribeiro leg.; CEMT • 2 specs; Presidente Tancredo Neves; 13°24′32″ S, 39°20′05″ W; Jan. 2011; C.M.P. Leite leg.; pitfall; CEMT. – **Distrito Federal** • 1 spec.; Brasilia; elev. 1100 m; Jan. 2001; N. Degallier leg.; CEMT • 11 specs; Brasilia, Fazenda Água Limpa (UNB); Nov. 2010; C. Suinaga leg.; CEMT • 1 spec.; Planaltina, Embrapa Cerrados; 15°35′54″ S, 47°42′51″ W; 19 Jan. 2006; C. Oliveira leg.; agricultural area; light; CEMT. – **Espírito Santo** • 1 spec.; Corrego Itá; Oct. 1954; W. Zikan leg.; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, Chacará Recanto das Oquideas; 3 Oct. 2011; A. Petini-Bevell leg.; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 15 Dec. 2007; O. Peres-Filho leg.; CEMT • 1 spec.; Poconé, Base UFMT; 16°29′58″ S, 56°24′49″ W; Mar. 2012; M. Rossini leg.; CEMT • 1 spec.; Viçosa; 10 Nov. 1982; Fiuza and Martina leg.; CEMT • 1 spec.; same data as for preceding; Feb. 2000; Lopes-Andrade and Vaz-de-Mello leg.; CEMT • 1 spec.; Viçosa, Corrego do Paraiso, Mata da Prefeitura; 1 Dec. 1982; P.S.F. Fiuza leg.; UV trap; CEMT • 1 spec.; Sesc Pantanal; 5 Jul. 2003; light trap; CEMT. – **Paraná** • 1 spec.; Cornélio Procópio, Parque Estadual Mata São Francisco; 23°09′03″ S, 50°33′51″ W; 19 Sep. 2009; N. Cipola leg.; CEMT • 1 spec.; Rancho Alegre, Fazenda Congonhas; 22°47′45″ S, 51°00′12″ W; elev. 580 m; 27 Sep. 2012; P.M. Felix leg.; pitfall fish; CEMT • 1 spec.; Rio Negro; Jan. 1924; M. Witti leg.; CEMT. – **Rio Grande do Sul** • 1 spec.; Bagé, Embrapa pecuárea; Jan. 2006; L.D. Audino leg.; pitfall; CEMT • 1 spec.; Canela, Flona; 8 Nov. 1998; J. Soledar leg.; CEMT. – **Santa Catarina** • 1 spec.; Painel-BAP IBAMA; 27°50′ S, 50°13′ W; 29 Sep. 2010; M.I.M. Hernández leg.; pitfall; meat atractive; CEMT. – **São Paulo** • 1 spec.; Luiza Antônio; 21°34′35″ S, 47°45′29″ W; 30 Jan.–1 Feb. 2009; S.P. Rosa and M. Landenthin leg.; CEMT • 1 spec.; São Miguel Arcanjo, P.E. Carlos Botelho; 24°04′01″ S, 47°59′08″ W; elev. 730 m; 15 Oct. 2011; E. Bovy leg.; *Brachyteles* feces; CEMT.

COLOMBIA – **Quindío** • 1 spec.; Filandia, Estacion Bremen; elev. 1800 m; Apr. 1998; J. Noriega leg.; bosque nativo; CEMT.

URUGUAY – **Cerro Largo** • 1 spec.; Melo, La Invernada farm; 13–20 Dec. 2011; pitfall trap baited (human + pig dung); CEMT.

***Ataenius picinus* Harold, 1867**
Ataenius picinus Harold, 1867c: 281.
Ataenius duplopunctatus Lea, 1923: 6.
Ataenius salutator Fall, 1930: 99.
Ataenius queroisii Paulian, 1934: 41.
Ataenius boucomontii Paulian, 1937: 179.
Ataenius darlingtoni Hinton, 1937: 179.

Ataenius alegrus Balthasar, 1947: 50.
Saprosites rugosus Richards, 1959: 41.
Ataenius paracognatus Balthasar, 1961: 123.

ARGENTINA – **Formosa** • 1 spec.; Las Lomitas., Fortíns Soledad, Banhado la Estrella; 8 Jun. 2015; C. Strusmann leg.; rotten wood; CEMT.

AUSTRALIA – **Queensland** • 2 specs; Dunmore State Forest, 12 km W of Cecil Plains, near Dalby; 22 Jan. 1999; CEMT.

BRAZIL – **Amazonas** • 1 spec.;Itacoatiara, Fazenda Aruana, Am010, Km 215; 16–19 Dec. 1990; C.S. Motta, R. Andreazze and V. Kawazoe leg.; UV light; CEMT • 1 spec.; same data as for preceding; INPA • 1 spec.; same data as for preceding; 12–15 Jan. 1991; INPA • 1 spec.; same data as for preceding; 13–16 Feb. 1991; INPA. – **Distrito Federal** • 1 spec.; Brasilia, Fazenda Água Limpa (UNB); Nov. 2010; C. Suinaga leg.; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, Chácara Recanto das Orquídeas; 3 Oct. 2011; A. Petinni-Bevell leg.; CEMT • 2 specs; Chapada dos Guimarães, Trilha Casa do Mel; 15°22′53″ S, 55°50′35″ W; elev. 520 m; Feb. 2015; R.V. Nunes, J. Cabra and M. Rossini leg.; light; CEMT • 1 spec.; Diamantino; 18 Sep. 2010; M.E. Maldaner leg.; manually; CEMT • 1 spec.; Pousada das Araras; 3 Dec. 1998; J.L. Moreno and T. Mestre leg.; Pantanal; CEMT. – **Mato Grosso do Sul** • 1 spec.; Corumbá, Fazenda São Bento; 2010; F.R. Tortato leg.: CEMT • 1 spec.; Corumbá; Prox. Porto Jofre; 14 Apr. 2011; R.V. Nunes leg.; light; CEMT • 2 specs; Porto Murtinho, Margem do Rio Paraguai, Zona Urbana; 6 Apr. 2015; F. Tortato leg.; light; CEMT • 1 spec.; Selvíria, UNESP. Farm; 15 Jun. 1991; S.R. Rodrigues leg.; ex Guzera cattle dropping; *Brachiaria decumbens* pasture; INPA. – **Minas Gerais** • 1 spec.; Mariana; 7 Nov. 1998; J.L. Moreno and T. Mestre leg.; CEMT • 1 spec.; Ponte Nova; 18 Oct. 1979; Planalsucar leg.; CEMT • 1 spec.; Viçosa; 4 Aug. 1982; Fiuza and Martins leg.; CEMT • 1 spec.; Viçosa; 20 Feb. 1986; P.S.F. Fiuza leg.; UV light; CEMT • 1 spec.; Viçosa, Córrego do Paraíso, Mata da Prefeitura; 12 Feb. 1984; Fiuza and Martins leg.; CEMT • 1 spec.; Viçosa, Campus UFV; Nov. 1997; F. Vaz-de-Mello leg.; CEMT. – **Rio Grande do Sul** • 7 specs; Eldorado do Sul, Estação Experimental Agronomica-UFRGS; 11 Oct. 1996; Carvalho and Silva leg.; arm. lum; CEMT. – **Rio de Janeiro** • 1 spec.; Macaé, P.N. Jurubatiba; 22°16′44″ S, 41°41′35″ W; 1 May 2007; J.A. Rafael and F.F. Xavier leg.; restinga vegetation; light; CEMT • 1 spec.; Miguel Pereira; Jan. 1998; J. Carlos leg.; CEMT • 1 spec.; Nova Friburgo; Dec. 1994; F.Z. Vaz-de-Mello leg.; CEMT. – **Santa Catarina** • 1 spec.; Florianópolis; 27°36′15″ S, 48°30′12″ W; 31 Jan. 2016; P.G. Silva leg.; at light; CEMT. – **Tocantins** • Porto Nacional, Agrotins; 5 Oct. 2005; M.S. Matos leg.; CEMT.

FIJI – **Viti levu** • 3 specs; Suva; 20–28 Oct. 1985; G. Borrea and Issza leg.; CEMT.

MEXICO – **Chiapas** • 2 specs; Palenque; Jun. 2004; F. Nicolalde leg.; CEMT.

UNITED STATES OF AMERICA – **Texas** • 1 spec.; Bosque, Whitney, Lake Wihtney State Park; 26 Jul. 1997; B. Buchli leg.; blacklight trap; CEMT.

***Ataenius strigicauda* Bates, 1887**
Ataenius strigicauda Bates, 1887: 96.
Ataenius aspericollis Petrovitz, 1973: 178.
Ataenius strigicaudus – Smith & Skelley 2007: 37.

BRAZIL – **Acre** • 3 specs; Rio Branco; CEMT • 1 spec.; Rio Branco, PZ-UFAC; Feb. 1997; CEMT • 1 spec.; same data as for preceding; Nov. 2000; M.A. Oliveira leg.; CEMT. – **Amazonas** • 1 spec.; Manaus, Est. Aml, Km 134; May 1968; INPA. – **Bahia** • 1 spec.; Reserva ALOAO; Jun. 1998; CEMT • 1 spec.; Caravelas; 8 Aug. 1997; CEMT • 1 spec.; Ilhéus; 14°42′23″ S, 39°07′37″ W; 21 Oct. 2011; C.M.P. Leite leg.; pitfall; CEMT • 2 specs; Itamarajú; 16°57′58″ S, 39°26′01″ W; Apr. 2011; C.M.P. Leite

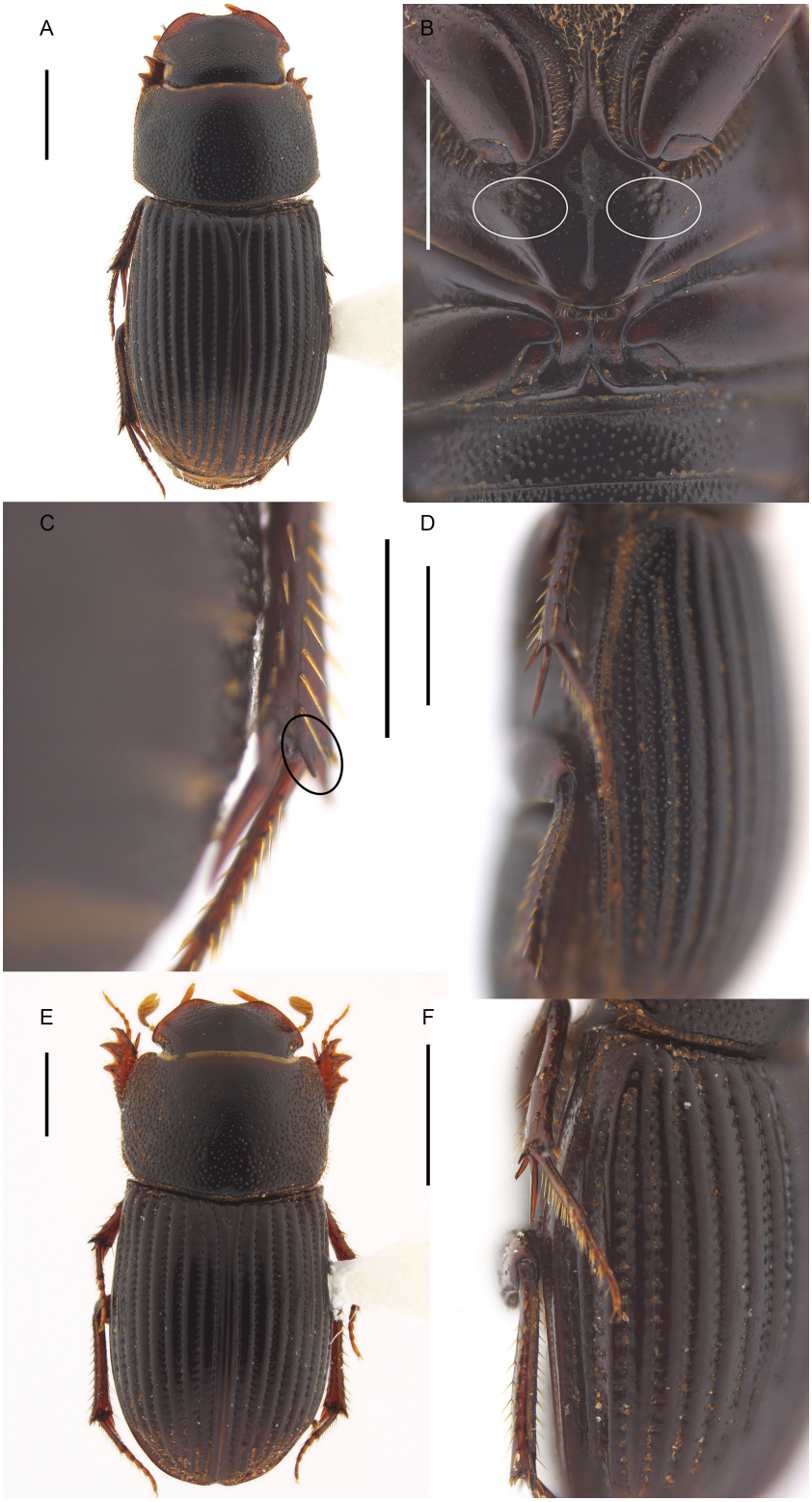

Fig. 11. A–D *Ataenius strigicauda* Bates, 1887 (CEMT), Caravelas, Bahia, Brazil. **A**. Dorsal habitus. **B**. Metaventrite (circles indicate group of punctures near mesocoxa). **C**. Left metatibia (circle indicates accesory apical spine). **D**. Elytra in lateral view. **E–F**. *A. blapoides* Balthasar, 1947 (CEMT), Cordisburgo, Bahia, Brazil. **E**. Dorsal habitus. **F**. Elytra, lateral view. Scale bars: A–B, D–F = 1 mm; C = 0.5 mm.

leg.; pitfall; CEMT • 20 specs; Mucugê, Chapada Diamantina, Carrasco; 27 Feb. 2010; T. Vasconcelos leg.; CEMT • 3 specs; Porto Seguro, RPPN, Veracel, Mussununga; 11 Nov. 2004; J.N.C. Louzada leg.; CEMT • 1 spec.; Presidente Tancredo Neves; 13°22′56″ S, 39°20′27″ W; Jan. 2011; C.M.P. Leite leg.; pitfall; CEMT • 3 specs; same data as for preceding; 13°24′32″ S, 39°20′05″ W; Jan. 2011; CEMT • 1 spec.; Ubaíra; 13°08′47″ S, 39°40′34″ W; Oct.–Jan. 2011; CEMT. – **Espírito Santo** • 1 spec.; P.E. Pedra Azul; elev. 1500 m; Jan. 2000; Lopes-Andrade and Vaz-de-Mello leg.; CEMT • 2 specs; Venda Nova do Imigrante, Clube; 20°20′5″ S, 41°08′18″ W; Jan. 2010; Vaz-de-Mello leg.; F2; CEMT • 2 specs; Venda Nova do Imigrante, Vila Santa Cruz; 4–12 Jan. 2018; Falqueto and Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; Dec. 1999; F.Z. Vaz-de-Mello leg.; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, Chácara Recanto das Orquídeas; 3 Oct. 2011; A. Petini-Bevell leg.; CEMT • 1 spec.; Campo Verde; 10 May 2012; K. Peña leg.; CEMT • 4 specs; Cotriguaçu, Faz São Nicolau; 9°50′19″ S, 58°15′03″ W; 25 Oct. 2014; A. Asenjo leg.; CEMT • 2 specs; same data as for preceding; 26 Oct. 2014; CEMT • 1 spec.; same data as for preceding; 28 Oct. 2014; UV light; CEMT • 1 spec.; same data as for preceding; 9°51′20″ S, 58°14′55″ W; Nov. 2014; R.V. Nunes and A. Asenjo leg.; light; CEMT • 2 specs; same data as for preceding; 15 Dec. 2007; O. Peres-Filho leg.; CEMT • 1 spec.; same data as for preceding; 30 Oct. 2014; W. Chamorro leg.; blacklight trap; CEMT • 4 specs; same data as for preceding; 95°12′01″ S, 58°14′55″ W; elev. 220 m; 16–20 Oct. 2012; F.Z. Vaz-de-Mello leg.; base camp; manually collected; CEMT • 1 spec.; same data as for preceding; 9°51′ S, 58°15′ W; Nov. 2010; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Cuiabá, Recanto Siriema; 15°35′32″ S, 56°1′38″ W; Sep. 2014; R.V. Nunes and B.F. Becker leg.; light; CEMT • 1 spec.; Curvelândia, Fazenda Luizinho, Bacia, Cabaçal; Feb. 2004; M. Santos-Filho leg.; CEMT • 2 specs; Diamantino, Alto Rio Arinos; Oct. 2001; E. Furtado; CEMT • 1 spec.; Nobres, Jd. Petrópolis; Nov. 2017; K.N. Pereira leg.; CEMT • 3 specs; Poconé, Pousada das Araras, Pantanal; 3 Dec. 1998; J.L. Moreno and T. Mestre leg.; CEMT • 1 spec.; Primavera do Leste; 10 Jun. 2007; P. Benelli leg.; CEMT • 1 spec.; same data as for preceding; 10 Nov. 2010; CEMT • 1 spec.; Santo Antônio do Leverger, Faz exp da UFMT; 15°51′17″ S, 56°04′17″ W; 17–19 Mar. 2011; A.S. Tissiani leg.; hum dung; CEMT • 1 spec.; Sesc Pantanal; 15 Apr. 2002; light trap; CEMT. – **Mato Grosso do Sul** • 1 spec.; Corumbá, Fazenda São Bento; 17°19′16″ S, 56°41′51″ W; 28 Apr. 2012; Rossini leg.; riparian forest of Piquiri River; CEMT • 1 spec.; Corumbá, Passo da Lontra; Nov. 2000; J. Raizer leg.; CEMT • 1 spec.; same data as for preceding; Dec. 2000; J. Raizer leg.; CEMT • 1 spec.; same data as for preceding; Feb. 2001; CEMT • 1 spec.; Poconé; 23 Jun. 1998; light trap on acuri palm tree; CEMT. – **Minas Gerais** • 1 spec.; Caxambu; Dec. 1990; A. Bello leg.; CEMT • 1 spec.; Cordisburgo; Jan. 1994; Vaz Mello leg.; CEMT • 1 spec.; same data as for preceding; Dec. 1997; CEMT • 1 spec.; same data as for preceding; Jan. 1998; CEMT • 1 spec.; Cordisburgo, F. Pontinha; Jul. 1994; de Mello leg.; CEMT • 2 specs; same data as for preceding; Jan. 1999; F.Z. Vaz-de-Mello leg.; CEMT • 2 specs; Ijací, Faz FAEPE Nov. 2002; J. Louzada leg.; CEMT • 2 specs; Ipatinga; Sep. 1993; E. Grossi leg.; CEMT • 1 spec.; Lavras; Nov. 2002; Vaz-de-Mello leg.; CEMT • 1 spec.; Lima Duarte, Parque Estadual Ibitipoca; 20 Feb. 1997; C.R.M. Abreu leg.; CEMT • 1 spec.; Ponte Nova; 23 Oct. 1979; Planalsucar leg.; CEMT • 1 spec.; São Gonçalo do Sapucaí; 28 Jan. 2017; L.F. Maia leg.; CEMT • 1 spec.; Viçosa; 13 Dec. 1982; D.S. Martins leg.; CEMT • 1 spec.; same data as for preceding; 26 Nov. 1986; P.S.F. Fiuza leg.; CEMT • 3 specs; same data as for preceding; 23 Sep. 1993; Louzada and Silva leg.; CEMT • 1 spec.; same data as for preceding; Oct. 1997; Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; Campus UFV; Nov. 1997; CEMT. – **Pará** • 7 specs; Curionópolis, Caverna SL 65 ES; 5°58′53″ S, 49°37′12″ W; 5 Jun. 2010; R.A. Zampaulo leg.; CEMT • 2 specs; Santarém; pasture; CEMT • 3 specs; Tailândia; 7 Aug. 2014; J. Malta and G. Santos leg.; CEMT. – **Rio de Janeiro** • 3 specs; Balneáreo São Pedro da Aldeia; 3 Jan. 1979; Bello leg.; CEMT • 1 spec.; same data as for preceding; 9 Feb. 1980; CEMT • 1 spec.; Itatiaia; Jan. 1995; CEMT • 1 spec.; Miguel Pereira; Feb. 1997; J. Carlos leg.; CEMT • 1 spec.; same data as for preceding; Feb. 1998; CEMT • 7 specs; same data as for preceding; Jan. 1998; CEMT • 1 spec.; same data as for preceding; Mar. 1998; CEMT • 1 spec.; same data as for preceding; Jan. 2002; CEMT • 1 spec.; Nova Friburgo; Nov. 1999; P. Grossi leg.; CEMT • 3 specs; same data as for preceding; Nov. 2016; E. Grossi leg.; CEMT • 1 spec.; Rio de Janeiro, Copacabana; 11 Nov. 1990; Bello leg.; CEMT •

1 spec.; same data as for preceding; 6 Oct. 1992; CEMT • 1 spec.; Rio de Janeiro, Ipanema; Nov. 1991; Zagury leg.; CEMT. – **Rio Grande do Sul** • 5 specs; Eldorado do Sul, EEA-UFRGS; Oct. 1996; Silva and Carvalho leg.; CEMT • 1 spec.; São Gabriel; 30°20′28″ S, 54°15′56″ W; 17 Oct. 2013, J.M. Flores leg.; floresta; pitfall (egg); CEMT. – **Rondônia** • 2 specs; 62 km S of Ariquemes; Feb. 1997; Vulinec and Mello leg.; CEMT • 2 specs; Cacaulândia, Fazenda Rancho Grande; Feb. 1997; Vaz-de-Mello leg.; CEMT • 1 spec.; Porto Velho, Caiçara; 9°26′28″ S, 64°49′00″ W; 20 Jun. 2011; M.F. Souza leg.; FIT; CEMT • 1 spec.; Porto Velho, Mutum-paraná, Rio Madeira; 12 Jun. 2004; margem direita interior; light trap; CEMT. – **Roraima** • 1 spec.; Rio Uraricoera, Ilha de Maraca; 2–13 May 1987; J.A. Rafael, J.E.B. Brasil and L.S.A. Aquino leg.; suspended trap; INPA. – **São Paulo** • 1 spec.; Cerqueira César; Nov. 2002; J. Carlos leg.; CEMT • 1 spec.; same data as for preceding; Dec. 1992; J. Carlos leg.; CEMT. – **Tocantins** • 1 specs;Porto Nacional, Agrotins; 5 Oct. 2005; M.S. Matos leg.; CEMT.

COSTA RICA • 3 specs; Hac. Guachipelin, Vólcan Rincón de la Vieja; 13 Aug. 1999; J.L Moreno and T. Mestre leg.; CEMT.

MEXICO – **Veracruz** • 2 specs; Km 22 Carr. Palma sola, Plan de Las Hayas; elev. 800 m; 12 Oct. 1982; Villalobos leg.; en suelo de pastizal inducido [in induced pastil soil]; CEMT • 3 specs; Km 14.5 Xico–Oxllapa, Mpio. Xico; elev. 2050 m; 18 Nov. 1999; E. Montes de Oca leg.; snm potrero [stable]; directa en excremento de vaca [directly on cow dung]; CEMT.

NICARAGUA – **León** • 1 spec.; Las Marías; 9 Feb. 1995; Maes *et al.* leg.; CEMT.

PANAMA – **Chiriqui** • 2 specs; 10 Km N of Santa Clara; elev. 1600 m; 26 Jul. 1998; M. Hardy leg.; CEMT. – **Cocle** • 4 specs; La Mesa; elev. 850 m; 5–10 May 2007; Curoe leg.; CEMT.

Collecting information

Members of this group can be found at altitudes ranging from 220 to 1100 metres. Species of this group can be found on a variety of substrates. The species *Ataenius picinus* was found in forest litter, rotten wood, associated with fungus, in feces of different mammals and carcasses in regions of forest and grasslands. In general, these insects can be collected with UV light traps and with traps baited with dung and rotten flesh (Stebnicka 2004).

Remarks

The *Ataenius strigicauda* group has six recognized species, four are found in Brazil. A key for species of this group can be found in Stebnicka (2004).

Ataenius texanus-carinator group
Figs 10A–B, 44A

Diagnosis

Length 2.5–4.5 mm. Body elongate sub-cylindrical, opaque, piceous. Head with coarse longitudinally elongate punctures; clypeus emarginate, lateral angles can be rounded, obtuse or denticulate; surface behind clypeal margin may present granules. Pronotum with coarse punctures across surface; lateral margins fringed with setae. Scutellum foveate anteriorly. Elytra shagreened with humeral tooth present; interstriae with variable sculpture can be granulate, carinate or only punctate, glabrous or not. Ventral surface coarsely punctured. Accessory spine of metatibia absent.

Type material examined

***Ataenius bolivarensis* Stebnicka, 2007**
Ataenius bolivarensis Stebnicka, 2007c: 73–74.

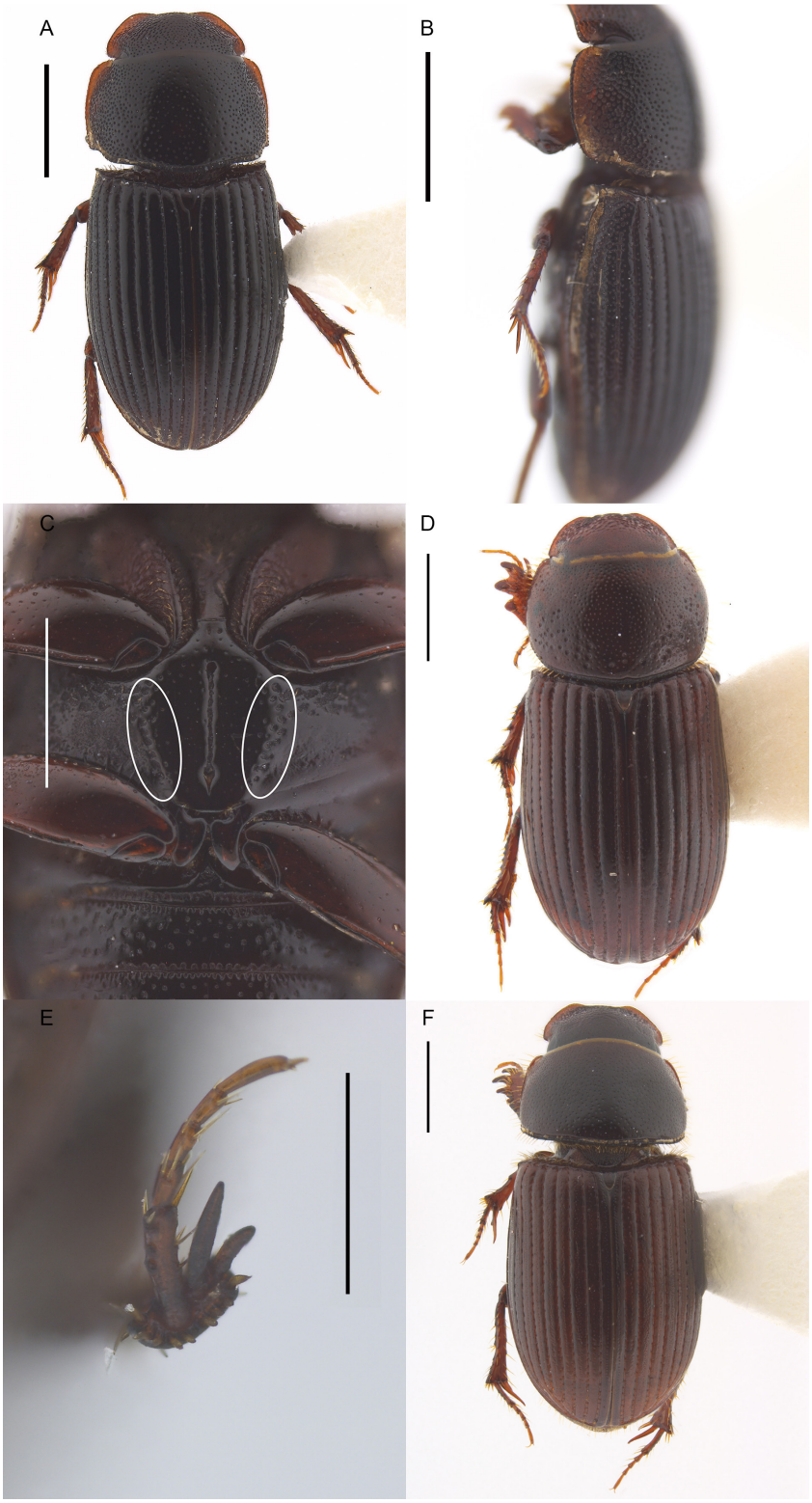

Fig. 12. A-C. *Ataenius nugator* group sp. (CEMT), Praia Pântano do Sul, Florianópolis, Brazil. **A**. Dorsal habitus. **B**. Lateral view of pronotum and elytra. **C**. Metaventrite (circles indicate belt of punctures around metaventrite plate). **D–E**. *Parataenius simulator* (Harold, 1868) (CEMT), Cidreira, Rio Grande do Sul, Brazil. **D**. Dorsal habitus. **E**. Right metatibia. **F**. *P. derbesi* (Solier, 1851) CEMT, La Payunia, Mendoza, Argentina, dorsal habitus. Scale bars: A–D, F = 1 mm; E = 0.5 mm.

Paratypes

BRAZIL • 1 spec.; "[White paper, printed] BR-MS-Selvíria/UNESP Farm/Guzerá Bovine dung pad/black light trap/Oikawa, F. col/ 16-I-2003. // [white paper, handwritten] Lumi/01:00/16/1103. // [blue paper, handwritten] MOHR 30. // [yellow paper, printed] PARATYPE/*Ataenius*/*bolivarensis* n./Dt.Stebnicka"; CEMT • 2 specs; "[White paper, printed] BR-MS-Selvíria/UNESP Farm/ Guzerá Bovine dung pad/black light trap/ Flechtmann, C.A.H. col/ 15-I-2003. // [white paper, handwritten] Lumi/01:00/16/1103. // [blue paper, handwritten] MOHR 30. // [yellow paper, printed] PARATYPE/ *Ataenius*/*bolivarensis* n./Dt.Stebnicka // [yellow paper, printed] PARATYPE/*Ataenius*/*bolivarensis* n./ Dt.Stebnicka"; CEMT • 2 specs; "[White paper, printed] BR-MS-Selvíria/UNESP Farm/black light trap; 20°25′09.8″ S, 51°20′23.5″ W/ border *Brachiaria decumbens* pas/ture- Atlantic forest fragment/Tanabe, S.Y. col/27-X-2005. // [white paper, handwritten] At.pseudo. // [yellow paper, printed] PARATYPE/ *Ataenius*/*bolivarensis* n./Dt.Stebnicka // [yellow paper, printed] PARATYPE/*Ataenius*/*bolivarensis* n./ Dt.Stebnicka"; CEMT • 2 specs; "[White paper, printed] BR-MS-Selvíria/UNESP Farm/black light trap/20°22′41.7″ S, 51°25′10.6″ W/*Brachiaria decumbens* pasture/ Mesquita F., W. col/30-I-2005. // [yellow paper, handwritten] At.pseudo. // [yellow paper, printed] PARATYPE/*Ataenius*/*bolivarensis* n./Dt.Stebnicka // [yellow paper, printed] PARATYPE/*Ataenius*/*bolivarensis* n./Dt.Stebnicka"; CEMT • 1 spec.; "[White paper, printed] BR-MS-Selvíria/UNESP Farm/black light trap/20°25′09.8″ S, 51°20′23.5″ W/ borde *Brachiaria decumbens/* pasture-riparian forest/ Flechtmann, C.A.H. col/03-XI-2005. // [white paper, handwritten] Limi/Bov/20100/03/11/05. // [white paper, handwritten] At.pseudo. // [yellow paper, printed] PARATYPE/*Ataenius*/*bolivarensis* n./Dt.Stebnicka"; CEMT • 1 spec.; "[White paper, printed] BR-MS-Três Lagoas/International Paper/Horto Rio Verde/black light flight intercept trap/ *Eupalyptus grandis* stand/Flechtmann, C.A.H. col/17 Nov. 1994. // [yellow paper, handwritten] C1593/17/11/94/VL58. // [yellow paper, printed] PARATYPE/*Ataenius*/*bolivarensis* n./ Dt.Stebnicka"; CEMT • 1 spec.; "[White paper, printed] BR-MS-Selvíria/UNESP Farm/bovine dropping baited pitfall/trap/20°25′09.8″ S, 51°20′25.3″ W /border *Bracharia decumbens*/pasture- riparian forest/ Flechtmann, C.A.H. col./ 27-X-2005. // [white paper, handwritten] Limi/Bov/22:00/271/0/05". // [white paper, handwritten] At.pseudo. // [yellow paper, printed] PARATYPE/*Ataenius*/*bolivarensis* n./ Dt.Stebnicka"; CEMT.

Other material examined

***Ataenius attenuator* Harold, 1874**

Ataenius attenuator Harold, 1874: 22.
Ataenius abditoides Chapin, 1940: 18.
Ataenius denticulatus Petrovitz, 1965: 175–176.

ECUADOR – **Esmeraldas** • 2 specs; Quinindé; May 1987; M.H. López leg.; CEMT. – **Imbabura** • 1 spec.; Barcelona; 12–20 Sep. 1995; A. Endara leg.; CEMT • 1 spec.; Los Ríos, CCRP; 2 Jan. 1980; S. Sandoval leg.; CEMT • 1 spec.; same data as for preceding; 4 Jan. 1980; CEMT • 1 spec.; same data as for preceding; 11 Jan. 1981; CEMT • 1 spec.; same data as for preceding; 5 Jun. 1980; CEMT • 2 specs; same data as for preceding; ex cacao abierto [extracted from opened cocoa bean]; CEMT • 3 specs; same data as for preceding; 8 Jun. 1980; CEMT • 1 spec.; same data as for preceding; ex palma abierta [extracted from plam tree]; CEMT • 1 spec.; same data as for preceding; 11 [unreadable] 1980; CEMT • 3 specs; same data as for preceding; CCRP; 11 Jun. 1980; CEMT • 1 spec.; same data as for preceding; 12 Jun. 1980; CEMT • 2 specs; same data as for preceding; 17 Jun. 1980; CEMT • 1 spec.; same data as for preceding; 13 Jun. 1980; ex cacao abierto [extracted from opened cocoa bean]; CEMT. – **Pichincha** • 5 specs; CCRP; 14 Jun. 1980; S. Sandoval leg.; ex palma cerrada; CEMT • 1 spec.; same data as for preceding; 17 Jun. 1980; ex cacao abierto [extracted from opened cocoa bean]; CEMT • 2 specs; same data as for preceding; 21 Jul. 1980; ex palma cerrada [extracted from plam tree]; CEMT • 1 spec.; same data as for preceding; 30 May 1980; ex cacao abierto [extracted from opened cocoa bean]; CEMT.

MEXICO – **Veracruz •** 2 specs; Actopan, Laguna La Mancha; Sep. 2003; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Actopan Dunas; 17 Sep. 2003; F.Z. Vaz-de-Mello leg.; CEMT.

SAINT VINCENT AND THE GRENADINES • 1 spec.; [Saint Andrew], Emerald Valley Hotel; 13°12′ N, 61°14′ W; elev. 20 m; 27–29 Aug. 2006; S. Peck and J. Peck leg.; E of Layou, streamside; UV trap; CEMT • 1 spec.; [Saint Patrick], Hermitage Forest; 13°14′ N, 61°12′ W; elev. 350 m; 23 Aug. 2006; J. Peck and S. Peck leg.; E of Spring Village, forest; UV trap; CEMT.

***Ataenius canoasus* Stebnicka, 2007**
Ataenius canoasus Stebnicka, 2007c: 76–77.

BRAZIL – **Mato Grosso do Sul •** 1 spec.; Aquidauana; S.R. Rodrigues leg.; CEMT. – **Minas Gerais •** 1 spec.; Lavras, Ponte Nova; 29 Apr. 1980; Planalsucar leg.; CEMT.

***Ataenius carinator* Harold, 1874**
Ataenius carinator Harold, 1874: 20.
Ataenius vincentiae Arrow, 1903: 513.

BRAZIL – **Acre •** 1 spec.; Rio Branco, PZ-UFAC; Feb. 1997; F.Z. Vaz-de-Mello leg.; CEMT.

VENEZUELA – **Yaracuy •** 1 spec.; Bolívar, Aroa; 10°00′00″ N, 68°00′00″ W; elev. 459 m; 19 Jul. 2009; M. Asmüssen and P. Colmenares leg.; human feces; CEMT.

***Ataenius catarinaensis* Stebnicka, 2007**
Ataenius catarinaensis Stebnicka, 2007c: 76.

BRAZIL – **Rio de Janeiro •** 1 spec.; Itatiaia; elev. 2400 m; Feb. 2004; P. Grossi leg.; CEMT. – **Santa Catarina •** 1 spec.; Florianópolis; Nov. 2001; P. Grossi leg.; CEMT.

***Ataenius gracilis* (Melsheimer, 1844)**
Oxyomus gracilis Melsheimer, 1844: 137.
Ataenius gracilis – Harold 1867c: 281.
Saprosites nocturnus Nomura, 1943: 77.
Ataenius nocturnus – Cartwright & Gordon 1971: 271.

BRAZIL – **Amazonas •** 1 spec.; Ilha da Marcantaria; 20–29 Nov. 1999; C.R.V. Fonseca leg.; CEMT. – **Bahia •** 1 spec.; Lençóis, Rio Santo Antonio; 12°29′24″ S, 41°19′46″ W; elev. 350 m; 5 Jun. 2007; Rafael and Xavier leg.; light; CEMT. – **Distrito Federal •** 1 spec.; Brasília; Feb. 2001; N. Degallier leg.; CEMT • 1 spec.; same data as for preceding; elev. 1100 m; CEMT • 1 spec.; same data as for preceding; Nov. 1989; A. Bello leg.; CEMT • 2 specs; Brasília, Aeronáutica; 5 Nov. 1981; Bello; CEMT. – **Goiás •** 1 spec.; Joánapolis, Chacara São José; 27 Feb. 2015; E. Santana leg.; CEMT. – **Mato Grosso •** 2 specs; Cuiabá, Campus UFMT; Nov. 2009; R. Miyazaki leg.; CEMT. – **Minas Gerais •** 1 spec.; Astolfo Dutra; Jul. 1974; CEMT • 2 specs; Cordisburgo, F. Pontina; Jul. 1994; de Mello leg.; CEMT • 2 specs; same data as for preceding; Jan. 1999; Falqueto and Vaz-de-Mello leg.; CEMT • 1 spec.; Teixeiras; Nov. 1996; Hardy and Harrison leg.; CEMT • 1 spec.; Viçosa; 22 Feb. 1997; A.P. Lobo leg.; CEMT • 1 spec.; same data as for preceding; 10 May 1997; H. Siqueira leg.; CEMT • 1 spec.; same data as for preceding; 24 May 1997; H. Siqueira leg.; CEMT. – **Pará •** 1 spec.; São José dos Pinhais; 25°33′ S, 48°58′ W; elev. 970 m; 13 Oct. 2012; P.B. Santos leg.; CEMT. – **Rio de Janeiro •** 1 spec.; Angra dos Reis, Bracuí; 10–11 May 2002; Nissimian leg.; baixada [lowland]; UV light; CEMT • 1 spec.; Nova Friburgo; Dec. 2002; E. Grossi leg.; CEMT. – **São Paulo •**1 spec.; [unreadable]; 23 Oct. 2010; Bello leg.; CEMT.

ECUADOR – **Napo •** 7 specs; SC Yasuní; elev. 250 m; 6–14 Sep. 1997; F. Maza leg.; light trap; CEMT • 6 specs; Yasuní; elev. 250 m; 8 Apr. 1997; G. Onore leg.; light trap; CEMT.

MEXICO – **Sonora** • 3 specs; Sierra Madres Occid, Yaqui River Valley; 3 Sep. 1999; Mathison and Singer leg.; CEMT. – **Veracruz** • 1 spec.; Veracruz-Actopan, La Mancha, Dunas; 27 Sep. 2003; F.Z. Vaz-de-Mello leg.; light; CEMT.

NICARAGUA – **Carazo** • 1 spec.; Bio. Chococente; 11°30′ N, 86°10′ W; 11–13 Sep. 1992; J.M. Maes and López.; CEMT • 1 spec.; same data as for preceding; J. M. Maes and Martínez leg; bosque tropical seco (denso) [tropical dry forest (dense)]. – **Leon** • 1 spec.; 11°30′ N, 86°10′ W; 10 Feb. 1993; M. Pogatshnik leg.; UV 220V; CEMT.

UNITED STATES OF AMERICA **– Virginia** • 1 spec.; Louisa Co., Mineral; 6 Jul. 1990; D.C. Hildebrant leg.; CEMT.

***Ataenius londrinae* Stebnicka, 2007**
Ataenius londrinae Stebnicka, 2007c: 74–75.

BRAZIL – **Bahia** • 1 spec.; Itamaraju; 16°57′58″ S, 39°26′01″ W; Apr. 2011; C.M.P. Leite leg.; pitfall; CEMT • 2 specs; same data as for preceding; 17°01′09″ S, 39°28′15″ W; Apr. 2011; CEMT • 1 spec.; Wenceslau Guimarães, Matriz; 13°41′21″ S, 39°21′52″ W; elev. 146 m; C.M.P. Leite leg.; pitfall; CEMT. – **Mato Grosso** • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 18 Oct. 2014; V. Koppe leg.; CEMT • 2 specs; Cotriguaçu, Fazenda São Nicolau, PPBioP1; 9°49′08″ S, 58°15′40″ W; 19–24 Oct. 2012; F.Z. Vaz-de-Mello leg.; FIT; CEMT. – **Minas Gerais** • 2 specs; Ipatinga; Nov. 1994; A. Bello leg.; CEMT • 1 spec.; Santa Barbara; 17 Nov. 1994; J.C. Zanuncio leg.; CEMT • 1 spec.; Viçosa; Feb. 1995; J.N.C. Louzada leg.; forest; CEMT • 1 spec.; Viçosa; 23 Jan. 1995; J.N.C. Louzada leg.; CEMT • 1 spec.; same data as for preceding; 4 Feb. 1995; J.N.C. Louzada leg.; CEMT • 1 spec.; same data as for preceding; 9 Feb. 1996; CEMT • 1 spec.; Viçosa, M.B.U.; 5 Feb. 1996; J.N.C. Louzada leg.; CEMT • 1 spec.; Viçosa, Mata do Paraiso; Jan. 1995; Louzada and Lopes leg.; CEMT • 2 specs; Viçosa, UFV; Dec. 1999; Lopes-Andrade and Vaz-de-Mello leg.; CEMT • 2 specs; same data as for preceding; Nov. 1997; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Viçosa, Mata do Paraiso; Jan. 1994; Louzada and Lopes leg.; CEMT. – **Pará** • 1 spec.; Belém, IPEAN; Oct. 1984; N. Degallier leg.; FIT; CEMT • 1 spec.; Redenção, Fazenda Marajoara; 7°30′ S, 50°16′ W; 12 Oct. 1998; P.Y. Scheffler leg.; CEMT • 2 specs; Serra Norte, Carajás; 18–20 Oct. 1984; N. Degallier leg.; CEMT. – **Paraná** • 1 spec.; Rancho Alegre, Fazenda Congonhas; 22°47′45″ S, 51°00′12″ W; 25 Oct. 2012; P.M. Felix leg.; canopy control; CEMT. – **Rondônia** • 3 specs; Rolim de Moura; 11°44′25″ S, 61°55′26″ W; elev. 273 m; 7–9 Dec. 2015; D.C. Castro leg.; SAF, pitfall human dung; CEMT.

***Ataenius opacipennis* Schmidt, 1910**
Ataenius opacipennis Schmidt, 1910: 360.

BRAZIL – **Goiás** • 1 spec.; Rio Verde; Feb.1998; J. Carlos leg.; CEMT. – **Maranhão** • 3 specs; C.N. Maranhão Rebio, Res. Biol. Gurupi; 3°14′01″ S, 46°40′52″ W; 1–5 Jul. 2011; M.M. Abreu and J.A. Silva leg.; light trap; CEMT • 2 specs; Corumbá, Fazenda São Bento; CEMT. – **Mato Grosso** • 1 spec.; Chapada dos Guimarães, Manso; 14 Sep. 2016; M. Debuss leg.; manually; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 30 Oct. 2014; W. Chamorro leg.; black light trap; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 9°50′19″ S, 58°15′03″ W; 25 Oct. 2014; light; CEMT • 1 spec.; same data as for preceding; 9°51′20″ S, 58°14′55″ W; Oct. 2014; R.V. Nunes leg.; base camp; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 9 Dec. 2009; M.R. Barreto leg.; platio de caixeta [caixeta tree plantation]; luz branca [white light]; CEMT • 1 spec.; Cuiabá; 15°16′45″ S, 56°00′06″ W; 7 Dec. 2015; A. Frolov and L. Akhmenotova leg.; CEMT • 1 spec.; Cuiabá, Boa Esperança; Oct. 2012; F.Z. Vaz-de-Mello leg.; CEMT • 5 specs; Estação Ecológica de Taiamã; 11 Dec. 1981; M. Serrano leg.; CEMT • 1 spec.; Nobres, Distrito Coqueiral; 26 May 2010; D. Nonato leg.; manually; CEMT • 3 specs; Poconé; 29 Jan. 1998; acuri palm tree; light trap; CEMT • 1 spec.; same data as for preceding; 27 Feb. 1998; light trap; CEMT • 25 specs; same data as for preceding; 28 Feb. 1998; light trap; acuri palm tree;

CEMT • 8 specs; same data as for preceding; 28 Mar. 1998; light trap; CEMT • 3 specs; same data as for preceding; 23 Jun. 1998; CEMT • 4 specs; same data as for preceding; 24 Jun. 1998; CEMT • 4 specs; same data as for preceding; 26 Apr. 1998; light trap; acuri palm tree; CEMT • 2 specs; same data as for preceding; 28 Apr. 1998; light trap; CEMT • 1 spec.; Santo Antônio do Leverger, Pesqueiro Casa Branca; 23 May 2014; H.D. Biachini leg.; manually; CEMT • 1 spec.; Sesc-Pantanal; 1 Nov. 2001; light trap; CEMT • 4 specs; same data as for preceding; 14 May 2002; CEMT • 2 specs; same data as for preceding; 9 Aug. 2002; CEMT • 2 specs; same data as for preceding; 15 Apr. 2002; CEMT • 1 spec.; same data as for preceding; 11 Jul. 2002; CEMT • 4 specs; same data as for preceding; 5 Aug. 2003; CEMT • 3 specs; same data as for preceding; 6 Sep. 2002; CEMT • 1 spec.; same data as for preceding; 17 Jul. 2004; CEMT • 75 specs; same data as for preceding; 15 Sep. 2004; CEMT • 1 spec.; same data as for preceding; 15 Oct. 2004; CEMT • 2 specs; Varzea Grande, Cuiabá, Parque de Exposição; 10 May 1972; Roger and Williams leg.; blacklight trap; CEMT • 9 specs; same data as for preceding; 30 May 1972; CEMT. – **Mato Grosso do Sul** • 12 specs; Corumbá, Faz São Bento, Prox Porto Jofre; 14 Apr. 2011; R.V. Nunes leg.; CEMT • 2 specs; Guia Lopes da Laguna; 15 Feb. 2007; A. Abot leg.; light trap; CEMT. – **Piauí** • 1 spec.; Piracuruca, P.N. Sete Cidades, Olho d'Água dos Milagres; 4°05′32″ S, 41°40′48″ W; elev. 180 m; 12 Feb. 2013; D.M. Takiyama and A.P.M. Santos leg.; Pennsylvania trap; CEMT.

***Ataenius pseudocarinator* Balthasar, 1947**

Ataenius pseudocarinator Balthasar, 1947: 54.

BRAZIL– **Bahia** • 3 specs; Caravelas; Mar. 1996; R. Dizin leg.; CEMT • 8 specs; same data as for preceding; 25 Mar. 1997; Anjos and Silveira leg.; CEMT • 1 spec.; same data as for preceding; Mar. 1997; R.D. Silveira leg.; CEMT • 1 spec.; Presidente Tancredo Neves; 13°22′56″ S, 39°20′27″ W; Jan. 2011; C.M.P. Leite leg.; pitfall; CEMT • 1 spec.; Wenceslau Guimarães Matriz; 13°41′21″ S, 39°21′52″ W; elev. 146 m; C.M.P. Leite leg.; CEMT. – **Ceará** • 1 spec.; Ubajara, PN Ubajara, Trilha da Samambaia; 3°50′30″ S, 40°53′55″ W; elev. 850 m; 17 Feb. 2013; D.M. Takiya leg.; light; CEMT. – **Distrito Federal** • 1 spec.; Brasília; elev. 1100 m; Feb. 2001; N. Degallier leg.; CEMT • 65 specs; Brasília, Fazenda Água Limpa (UNB); Nov. 2010; C. Suinaga leg.; CEMT. – **Goiás** • 1 spec.; Rio Verde; Sep. 1997; J. Carlos leg.; CEMT. – **Maranhão** • 7 specs; Mirador, P.E. Mirador, Base Geraldina; 20–24 Dec. 2006; R.O. Souza and J.C. Silva leg.; light; CEMT • 1 spec.; São Luís, UEMA, Aléia; Feb. 2009; M.C. Batista leg.; CEMT. – **Mato Grosso** • 1 spec.; Chapada dos Guimarães; 15°24′31″ S, 55°45′53″ W; 2 Dec. 2015; A. Frolov and L. Akhmetova leg.; light; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 30 Oct. 2014; W. Chamorro leg.; black light; CEMT • 1 spec.; Cuiabá; 15°16′45″ S, 56°06′06″ W; 7 Dec. 2015; A. Frolov and L. Akhmetova leg.; CEMT • 4 specs; Cuiabá, Campus UFMT; 9 Oct. 2016; A. Frolov leg.; UV light; CEMT • Cuiabá, Fazenda Mutuca; 15°19′31″ S, 55°08′03″ W; elev. 285 m; Nov. 2015; R.V. Nunes and A. Frolov leg.; light; CEMT • 4 specs; Diamantino; Jan. 2001; A. Bello leg.; CEMT • 3 specs; Diamantino, Alto Rio Arinos; Oct. 2001; E. Furtado leg.; CEMT • 1 spec.; Paranaita, Margem Esquerda Teles Pieres; 9°19′47″ S, 56°47′49″ W; Sep. 2011; A.P. Benelli leg.; CEMT • 1 spec.; Porto Estrela, EES das Araras, base camp; 15°39′09″ S, 57°12′53″ W; elev. 217 m; 8–12 Oct. 2011; Vaz-de-Mello leg.; light; CEMT • 1 spec.; Santo Antônio do Leverger, São Vicente da Cerra; 15°49′42″ S, 55°25′11″ W; 16–18 Feb. 2011; A.S.O. Tissiani leg.; forest; pitfall human dung; CEMT • 2 specs; Sesc-Pantanal; 6 Sep. 2002; light trap; CEMT • 1 spec.; Sinop; R.L.Silva leg.; manually; CEMT • 1 spec.; Sinop, Campus UFMT; R.L. Silva leg.; manually; CEMT • 1 spec.; Vila Bela, Margem Guaporé; 1 Oct. 1984; S. Marcolina leg.; light; CEMT. – **Minas Gerais** • 2 specs; Águas Vermelhas; Dec. 1997; A. Bello leg.; CEMT • 1 spec.; same data as for preceding; A. Bello and F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Ijací, Faz FAEPE; Nov. 2002; J. Louzada leg.; CEMT • 2 specs; Ipatinga; Nov. 1994; Bello leg.; CEMT • 1 spec.; Juiz de Fora; Nov. 1974; G.S. Andrade leg.; CEMT • 2 specs; Santana do Riacho, PARNA Serra do Cipó; 11 Dec. 2004; G.S. Schiffler leg.; forest; CEMT • 1 spec.; Teixeiras; Nov. 1996; Hardy and Harrison leg.; CEMT • 2 specs; Viçosa; Jan. 1995; J. Louzada leg.; CEMT. – **Paraíba** • 1 spec.; Est. Rio Mamanguape; 29–31 Jul. 2000; Deyse and Araujo leg.; light trap; CEMT • 1 spec.; same data as for preceding; 1–7 Jun. 2000; Malaise trap; CEMT • 1 spec.; João Pessoa; Campus UFPB; 17 May 1980;

R. Baltasar leg.; CEMT • 1 spec.; Rio Tinto, APA Barra do Rio Mamanguape; 6°46′41″ S, 34°55′37″ W; 27 Mar. 2012; D. Dal-Bó leg.; CEMT. – **Pernambuco** • 1 spec.; Fernando de Noronha, Sancho; 20–28 Feb. 2020; Grossi and Rafael leg.; light; CEMT • 1 spec.; Igarassu, RECD; 11 May 2007; Silva leg.; CEMT. – **Rio Grande do Norte** • 1 spec.; Natal, EMPARN; 5°45′56″ S, 35°11′21″ W; elev. 32 m; 23 May 2007; J.A. Rafael and F. Xavier leg.; light; CEMT. – **São Paulo** • 1 spec.; Descalvado, Fazenda Itaúnas; 24 Aug. 2006: N.W. Perioto leg.; forest + *Citrus* plantation; pitfall; CEMT.

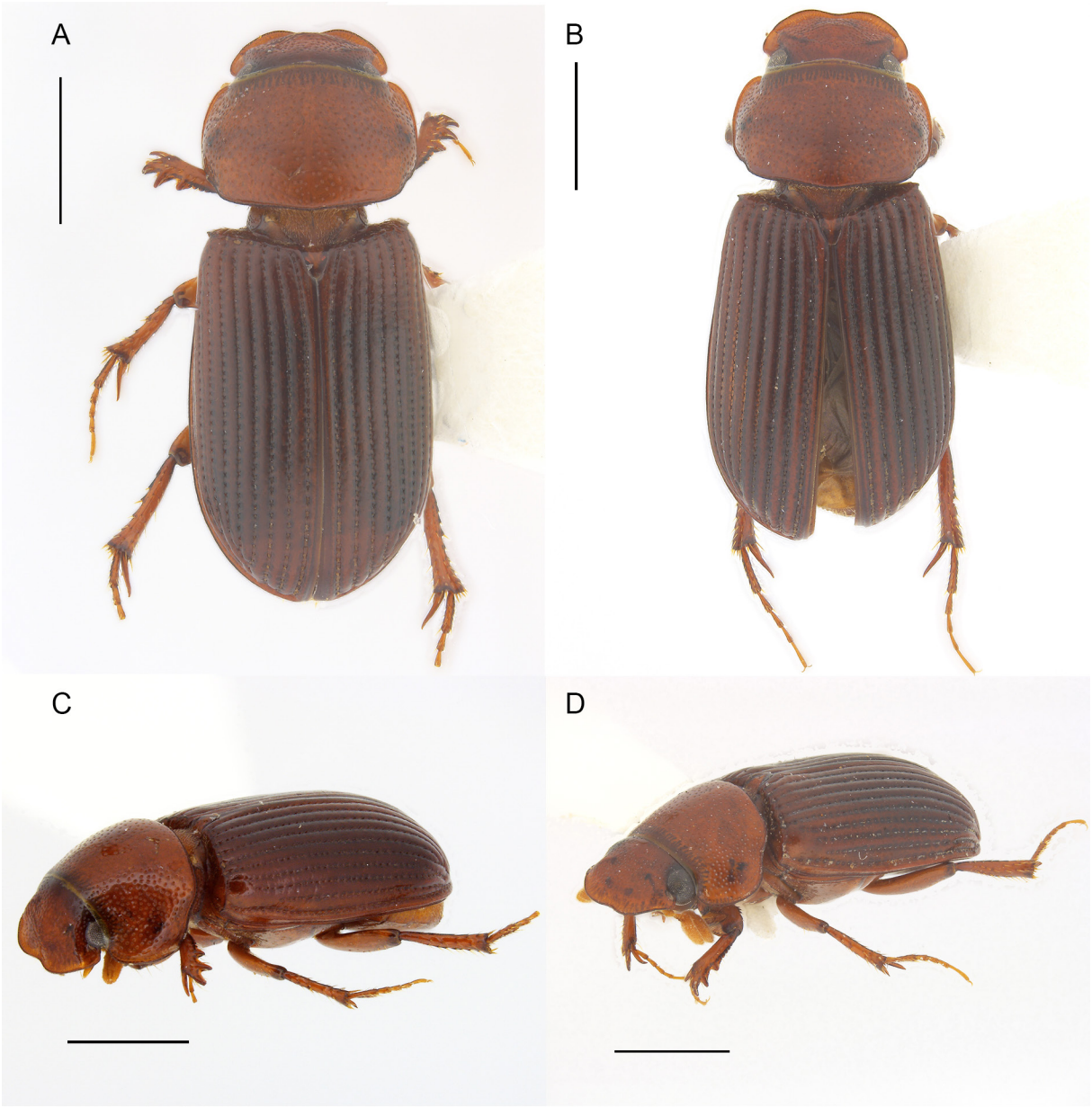

Fig. 13. *Pseudataenius gracilitarsis* (Petrovitz, 1973). **A–C**. ♀ (CEMT), Brasília, Distrito Federal, Brazil. **A**. Dorsal habitus. **B–D**. ♂ (CEMT), Joanópolis, Goiás, Brazil. **B**. Dorsal habitus. **C**. Frontolateral habitus. **D**. Frontolateral habitus. Scale bars = 1 mm.

Collecting information

Specimens were collected at altitudes ranging from 146 to 2400 metres in regions of Cerrado, Atlantic and Amazon forest. These insects can be collected with UV light and flight intercept traps and are attracted to human and cow dung (Stebnicka 2007c).

Remarks

The *Ataenius texanus-carinator* group has over 40 recognized species, 11 are registered in Brazil (Stebnicka 2007c).

Genus ***Batesiana*** Chalumeau, 1983

Diagnosis

Length 5.5–6.5 mm. Body oval, piceous. Head broad, strongly punctate. Pronotum transverse, lateral margins strongly explanate, surface densely and coarsely punctate. Elytra widened posteriorly, with tubercles variably tuberculate. Meso- and metatibiae, as well as tarsus, densely setaceous ventrally; apical spurs sometimes hidden by setae.

Remarks

Batesiana currently has two known species: *B. chamorroi* and *B. tuberculata* (Skelley & Vaz-de-Mello 2023).

Key to species of ***Batesiana*** (Portuguese version in Supp. file 1)

1. Lateral margins of pronotum with posterior angle projecting posteriorly (Fig. 17F); head coarsely punctured ..... ***B. chamorroi*** Skelley &Vaz-de-Mello, 2022 (Fig. 17F)
– Lateral margins of pronotum with posterior angle not projected (Fig. 17E); head more finely punctured ..... ***B. tuberculata*** (Bates, 1887) (Fig. 17E)

Batesiana chamorroi Skelley & Vaz-de-Mello, 2022
Figs 17F, 44B

Batesiana chamorroi Skelley & Vaz-de-Mello, 2022: 613.

Diagnosis

Length 7.5 mm. Head, with coarse and wide punctures; clypeus anteriorly bent at an angle of nearly 90° degrees before median gibbosity. Pronotum coarsely and densely punctate, with a large lateral fovea; lateral margin explanate, with posterior angles strongly projected. Elytra tuberculate; tubercles distended anteriorly, rounded posteriorly. Meso- and metatibiae, as well as tarsi densely setaceous ventrally; apical spur visible amidst setae.

Material examined

BRAZIL – **Roraima** • 1 spec.; P.N. Monte Roraiman; 5°07′31″ N, 60°35′50″ W; elev. 1000 m; Dec. 2019; F. Oliveira, F. Xavier and S. Lima leg.; em igarapé [in stream]; light; CEMT.

Sexual dimorphism

Unknown.

Collecting information

This species can be collected with light traps.

Batesiana tuberculata (Bates, 1887)
Figs 17E, 44B

Euparia tuberculata Bates, 1887: 94.

Phalangochaeta tuberculata – Martínez 1952: 95.
Batesiana tuberculata – Chalumeau 1983a: 143.

Diagnosis

Length 5.3–6.6 mm. Head strongly punctate, gibbous medially; clypeus not sinuate, with glabrous band near anterior margin. Pronotum with lateral margins explanate, posterior angles right-angled; punctate with coarse punctures, punctures larger and closer near lateral margins. Elytra with interstriae tuberculate. Meso- and metatibiae, as well tarsi, densely setaceous ventrally; apical spurs sometimes hidden by setae.

Material examined

BRAZIL – **Acre** • 1 spec.; Assis Brasil; 10°35′44″ S, 69°37′11″ W; 18 Sep. 2016; Ortiz and Borges leg.; light trap (CDC); CEMT • 1 spec.; same data as for preceding; 23 Sep. 2016; CEMT. – **Amazonas** • 1 spec.; Manaus; Jun. 1955; Martínez leg.; FSCA. – **Mato Grosso** • 1 spec.; Chapada dos Guimarães; 15°01′18″ S, 55°15′04″ W; 27 Oct. 2006; R.L. Ferreira leg.; CEMT • 2 specs; Cotriguaçu, Fazenda São Nicolau, PPBIO; Sep. 2010; F.P. Florêncio leg.; *Orbignya phalerata*; CEMT. – **Pará** • 1 spec.; Itaituba, Mina do Palito; 6°20′16″ S, 55°47′45″ W; 27 Jan. 2018; K.K.G. Silva and L.P. Prado leg.; CEMT • 2 specs; Novo Progresso, Fazenda Florentino; 7°08′11″ S, 55°23′42″ W; elev. 230 m; Oct.–Nov. 2010; D. Krinski leg.; Amazon forest; light; CEMT. – **Rondônia** • 1 spec.; Nova Mamoré; 10°19′47″ S, 64°45′12″ W; elev. 190 m; Jan.–Feb. 2010; FIT; F. Coletti leg.; Mata 3; CEMT • 1 spec.; Porto Velho, Rio das Graças, Bom Jesus; 8°49′47″ S, 63°46′51″ W; 22 Oct. 2017; D.C. Santos and K.K.G. Silva leg.; FIT; CEMT.

COLOMBIA – **Chocó** • 2 specs; Jurubida; elev. 100 m; 9 Sep. 1995; P. Duque leg.; litter; CEMT.

FRENCH GUIANA • 1 spec.; Cayenne, Kourou, Forêt de Wayabo; 1 Dec. 2012; M. Duranton leg.; CEMT • 2 specs; Montagne des Chavaux; 4°44′56″ N, 52°26′28″ W; elev. 75 m; 4 Apr. 2014; SAEG leg.; CEMT • 1 spec.; same data as for preceding; 11 Feb. 2013; FIT(V); CEMT • 3 specs; same data as for preceding; 21 Dec. 2013; CEMT • 1 spec.; same data as for preceding; 25 May 2013; light (GEML); CEMT.

PANAMA – **Colón** • 1 spec.; Gamboa; elev. 50 m; 4 May 2007; Curoe leg.; FIT; CEMT.

UNKNOWN COUNTRY – 1 spec.; [unknown location]; A2 FIT; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter and disc of pygidium broader than that of female.

Collecting information

Specimens can be collected in lights and with flight intercept traps. Some specimens were found associated with *Attalea speciosa* Mart. (as *Orbignya phalerata* on the label of the examined material) palm trees. Skelley & Vaz-de-Mello (2022) discussed the association of *B. tuberculata* with *Asterocaryum paramaca* Mart., since adults and larvae were found nesting in the palm's crown.

Genus ***Cartwrightia*** Islas, 1958

Diagnosis

Length 3.0–3.4 mm. Body elongate, surface partially covered with argillaceous coating. Head with frontoclypeal and genal suture evident; clypeus sinuate, medially with longitudinal carina; anterior margin thickened, downwardly bent and acuminate medially. Pronotum coarsely punctate, punctures scattered; lateral margin sinuate; five incomplete longitudinal carinae present on disc, medial carina bifurcate medially. Elytra with odd interstriae carinate; even interstriae flat; striae not excavate, evidenced by row of coarse punctures lateral to interstriae; posterior declivity with a single big tubercle near posterior margin. Protibia with two to three teeth, first and second teeth closer than third; first tooth positioned apically. Basal tarsomere of meso- and metatarsus as long as the following three combined.

Remarks

Cartwrightia comprises three recognized species *C. islasi* Cartwright, 1967, *C. cartwrighti* (Mexico, El Salvador and Guatemala) and *C. intertribalis* Islas, 1958 (Mexico). For keys to all species see Cartwright (1967).

Cartwrightia cartwrighti Cartwright, 1967
Figs 27F, 58A

Cartwrightia cartwrighti Cartwright, 1967: 4.

Diagnosis

Length 3.0 mm. Head with clypeus sinuate; frontoclypeal and genal suture elevated. Pronotal lateral margins sinuated; disc with one transverse, almost completely glossy and strongly punctate anterior carina with three longitudinal carinae parting from it; lateral carinae interrupted by oblique furrow; middle carina bifurcate near posterior margin; all carinae glabrous and glossy. Elytra with humeral denticle fine but evident.

Material examined

ARGENTINA – **Corrientes** • 4 specs; Corrientes, Barrio Víctor Colas; 27°28′50″ S, 58°47′18″ W; elev. 64 m; 21 Oct. 2012; M.I. Polesel *et al.* leg.; CEMT.

BRAZIL – **Goiás** • 1 spec.; Goiânia; 12 Jan. 2002; S.S. Silva leg.; CEMT. – **Mato Grosso** • 1 spec.; Poconé, Parque Sesc Baixa das Pedra; 13 Sep. 2018; G.B. Silva and L.G.P. Dantas leg.; pitfall; CEMT • 1 spec.; Poconé, Sesc Pantanal; Nov. 2016; S. Montoya leg.; CEMT. – **Mato Grosso do Sul** • 2 specs; Corumbá, Passo do Lontra; Feb. 1996; J. Louzada and F.Z. Vaz de Mello leg.; human dung; CEMT. – **Paraná** • 1 spec.; Londrina; Nov.–Dec. 1998; I.M. Medri leg.; CEMT.

Sexual dimorphism

Males with apical spur of protibiae long, downwardly and inwardly bent. Penultimate abdominal ventrite shortened. Female spur almost straight, weakly downwardly bent. Penultimate abdominal ventrite similar to the others.

Collecting information

Cartwrightia cartwrighti were collected at altitudes ranging from 64 to 1000 metres. Specimens were collected with flight intercept and black light traps, in coffee forest litter, and appear to be attracted to human dung (Cartwright 1967).

Genus ***Euparixoides*** Hinton, 1936

Diagnosis

Length 3.2–3.4 mm. Body, elongate, dorsal surface shagreened, strongly punctate, dark brown. Head with clypeal margin serrate. Pronotum strongly punctate, lateral and posterior margins serrate. Elytra strongly punctate; epipleuron covering mesepimeron and metepisternum (see Fig. 32B). Mesocoxa elongate, reaching elytral epipleuron.

Remarks

Euparixoides has five recognized species (Stebnicka & Skelley 2005; Stebnicka 2009). This genus has been reported from Brazil, Costa Rica, Honduras, Nicaragua, Panama, Peru and Venezuela (Stebnicka & Skelley 2005; Stebnicka 2009). For a key to all its species see Stebnicka & Skelley (2005).

Euparixoides johnsoni Stebnicka, 1998
Figs 18F, 45A

Euparixoides johnsoni Stebnicka, 1998a: 195–197.

Diagnosis

Length 3.2–3.4 mm. Head with clypeus emarginate, shagreened, finely punctate; anterior margins serrate; frons more strongly punctate than clypeus. Pronotum with anterior margin explanate coarsely punctate; lateral and posterior margins serrate; posterior margins sinuate; posterior angles prominent, acuminate. Elytra with striae coarsely punctate, wider than interstriae.

Material examined

BRAZIL – **Rondônia** • 1 spec.; Parque Nacional Guajara-Mirim; 10°19′ S, 64°32′ W; 22 Nov. 2016; M.A.P.A. Silveira leg.; FIT; CEMT.

Sexual dimorphism

Unknown.

Collecting information

Specimens collected with flight intercept trap.

Genus ***Flechtmanniella*** Stebnicka, 1999

Diagnosis

Length 5.0–6.0 mm. Body robust, glabrous, piceous. Head with clypeus strongly gibbous medially. Pronotum transverse; anterior angles explanate; lateral margins not fringed by setae. Elytra with interstriae glabrous and flat, except for ninth one, which is carinate and expanded, forming a pseudoepipleuron.

Remarks

Flechtmanniella is a monotypic genus reported only from Brazil (Stebnicka 2009).

Flechtmanniella laticollis (Petrovitz, 1973)
Figs 17C–D, 45A

Euparia laticollis Petrovitz, 1973: 181.

Flechtmannia laticollis – Stebnicka 1999a: 287.
Flechtmanniella laticollis – Stebnicka 1999c: 287.

Diagnosis

Same as for the genus.

Material examined

BRAZIL – **Bahia** • 2 specs; Caravelas; Mar. 1997; R. Diniz leg.; CEMT. – **Mato Grosso** • 1 spec.; Cuiabá, Flor do Cerrado; 15°29′38″ S, 56°4′36″ W; 15 Nov. 2015; A. Frolov leg.; CEMT • 2 specs; Cuiabá, Res. Coxipó; Oct. 2018; F.M. Lima leg.; light; CEMT • 1 spec.; Diamantino, Reserve Vale da Solidão; 14°22′ S, 56°07′ W; elev. 450 m; 29 Oct. 2013; E. Furtado leg.; CEMT • 1 spec.; Porto Estrela, EE Serra das Araras, heliporto; 15°39′19″ S, 57°12′50″ W; 21 Nov. 2017; R.J.P. Machado and R. Nunes leg.; light; CEMT • 1 spec.; Nova Xavantina, Fazenda Abonizia; 14°45′52″ S, 52°33′17″ W; elev. 406 m; 14–16 Feb. 2019; R.J. Silva and R.S.A. Silva leg.; Cerrado Campo Limpo com área inundada; pitfall hum dung; CEMT. – **Mato Grosso do Sul** • 1 spec.; Guia Lopes da Laguna; 15 Nov. 2007; A. Abot leg.; light trap; CEMT • 1 spec.; Selvíria, UNESP farm; 30 Oct. 2000; C.A.H. Flechtmann leg.; *Brachiaria decumbens* pasture; black light trap; CEMT • 1 spec.; Três Lagoas, Horto Rio Verde, Tres Lagoas Agroflorestal; 15 Feb. 1994; C.A.H. Flechtmann leg.; Cerrado satand; black light trap; CEMT • 1 spec.; same data as for preceding; 19 Oct. 2003; CEMT. – **Minas Gerais** • 1 spec.; Buenopolis, PE Serrado Cabral; 17°55′18″ S, 44°14′26″ W; 17 Apr. 2008 M.F. Souza leg.; 1041 mosl, hum dung; CEMT. – **São Paulo** • 1 spec.; Anhembi, ESALQ/USP; E.N.L. Ferreira leg.; CEMT.

Sexual dimorphism

Males with apical spur of protibiae downward and inward curved; males with thicker tarsus when compared with females.

Collecting information

Specimens were collected with light traps in pastures of *Urochloa decumbens* and *Eucalyptus grandis* W. Hill ex Maiden forests. Some specimens were also found in nests of *Acromyrmex lobicornis* (Emery, 1888) (Stebnicka 1999a, 2007a).

Genus ***Iarupea*** Martínez, 1953

Diagnosis

Length 4.5–5.0 mm. Body shagreened, reddish brown to piceous. Head with longitudinal wrinkles; clypeus emarginate, amply gibbous. Pronotum convex, impunctate or with wide and coarse punctures; posterior and lateral margins excavated, with wide furrow posteriorly; anterior angles and lateral margins explanate undulate. Elytra with striae strongly punctate, crenating margin of interstriae; interstriae three, five and seven with weak tubercle anteriorly, fifth stria depressed anteriorly; humeral region prominent, crowned with group of setae.

Remarks

Iarupea has five recognized species and all of them can be found in Brazil. But this genus is not restricted to Brazil, as it has been found in Argentina, Bolivia, Suriname and Guyana (Stebnicka 2007a, 2009).

Key to species of *Iarupea* from Brazil (adapted from Stebnicka 2007a) (Portuguese version in Supp. file 1)

1. Pronotum not punctate, covered with fine granules .....***I. goias*** Stebnicka, 2007 (Fig. 14D)
– Pronotum everywhere punctate, punctures coarse 2

2. Pronotum punctate with large, coarse punctures; some punctures are confluent, giving the pronotum a wrinkled appearance (Fig. 15A); lateral margins weakly explanate, strongly sinuate .... ***I. serratipennis*** (Petrovitz, 1973) (Fig. 15A–B)
– Pronotum punctate with smaller punctures, these do not create wrinkles (Figs 14E–F, 15D); lateral margins somewhat more strongly explanate, not so sinuate 3

3. Posterior angles of pronotum with a big tubercle (Fig. 15D) .... ***I. lopeteguii*** (Martínez, 1953) (Fig. 15C–D)
– Posterior angles of pronotum not tuberculate 4

4. Lateral margins of pronotum widely explanate; pronotum punctate with oval punctures (Fig.14F); punctures closer near anterior margin, more spaced near posterior margin; pronotum and interstriae glossy, microreticulate ..... ***I. nigricans*** Westwood, 1847 (Fig. 14F)
– Lateral margins of pronotum weakly explanate (Fig. 14E); pronotum punctate with longitudinally distended punctures, punctures can be coalescent; pronotum and elytra dull, strongly shagreened ..... ***I. luisae*** Stebnicka, 2007 (Fig.14E)

Iarupea goias Stebnicka, 2007
Figs 14D, 45B

Iarupea goias Stebnicka, 2007a: 579–581.

Diagnosis

Length 5.0 mm. Body dark reddish brown. Pronotum without punctures, instead covered with small tubercles; posterior furrow not strigate; some specimens present the posterior margin of pronotum, before furrow, medially acuminate.

Material examined

BRAZIL – **Maranhão** • 2 specs; Carolina, Fazenda Cincorá; 22 Oct. 2009; F. Lima-de-Oliveira, R.O. Souza, M.B. Aguiar Neto leg.; light; CEMT. – **Minas Gerais** • 1 spec.; Cordisburgo; Jan. 1994; F.Z. Vaz de Mello leg.; CEMT.

Sexual dimorphism

Males unknown, but based on the other species of the genus, males probably have the apical spur of protibiae strongly arched when compared with the females.

Collecting information

Specimens were collected with light traps and in galleries of nests of *Atta* sp. (Stebnicka 2007a).

Iarupea lopeteguii Martínez, 1953 (new record)
Figs 15C–D, 45B

Iarupea lopeteguii Martínez, 1953: 77–80.

Diagnosis

Length 4.5–5.0 mm. Body piceous. Pronotum everywhere punctate with large, not confluent and coarse punctures; posterior margin, near posterior angles, with a single tubercle.

Material examined

BRAZIL – **Mato Grosso** • 2 specs; Varzea Grande, Sítio Toca da Coruja; 15°33′07″ S, 56°19′07″ W; elev. 230 m; 18 Oct. 2020; A. Petini-Benelli leg.; CEMT.

Sexual dimorphism

Males with apical spur of protibiae strongly curved; female apical spur short, almost straight.

Collecting information

Specimens were attracted to black light traps and found in waste piles from nests of *Atta vollenweideri* Forel, 1893 (Martínez 1953).

Iarupea luisae Stebnicka, 2007
Figs 14E, 45B

Iarupea luisae Stebnicka, 2007a: 579.

Diagnosis

Length 4.8–5.0 mm. Body dark reddish brown. Head with frons coarsely punctate; punctures coalescent. Pronotum densely punctate with large punctures; punctures can be coalescent; lateral margins clearly explanate.

Material examined

BRAZIL – **Maranhão** • 1 spec.; Pedrinhas, São Luís Island; 29 Aug. 1984; E.C. Bergmann leg.; alluvial ombrophylous dense forest; blacklight; FIT; CEMT • 1 spec.; same data as for preceding; 11 Mar. 1987; CEMT.

Sexual dimorphism

Males unknown, but based on the other species of the genus, males probably have the apical spur of protibiae strongly arched when compared with the females.

Collecting information

Specimens were collected with black light and flight intercept traps in mangrove areas and extracted from *Atta* sp. nests (Stebnicka 2007a).

Iarupea nigricans (Westwood, 1847)
Figs 14F, 45B

Euparia nigricans Westwood, 1847: 240.
Euparia attenuata Harold, 1870: 23.

Iarupoides attenuata – Chalumeau & Howden 1984: 87.
Iarupea attenuata – Stebnicka 1999a: 291.
Iarupea nigricans – Stebnicka 2009: 17

Diagnosis

Length 4.8–5.0 mm. Body dark reddish brown, pronotum microreticulate, elytra strongly shagreened. Head with frons with scarce punctures. Pronotum punctate with large and oval punctures; punctures closer and smaller near anterior margin, not coalescent; near posterior margins, punctures larger and more widely spaced; lateral margins weakly explanate, strongly sinuate.

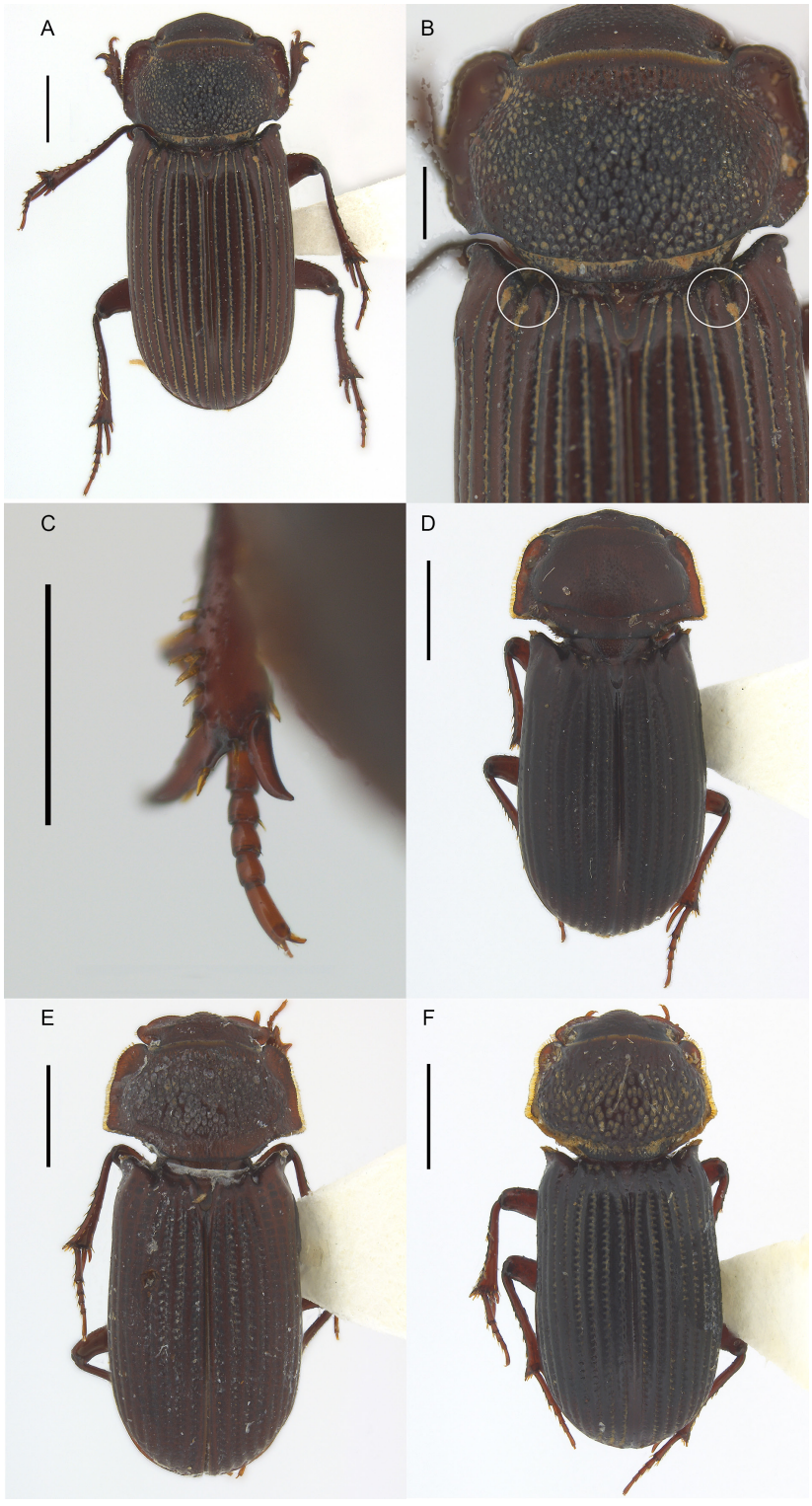

Fig. 14. A–C. *Arupaia friedenreichi* (Harold, 1870), ♂ (CEMT), Ijaci, Minas Gerais, Brazil. **A**. Dorsal habitus. **B**. Elytra anterior margin (circles indicate 5th striae and interstriae). **C**. Male apical spur of protibia. **D**. *Iarupea goias* Stebnicka, 2007 (CEMT), Carolina, Maranhão, Brazil, dorsal habitus. **E**. *I. luisae* Stebnicka, 2007 (CEMT), Pedrinhas, Maranhão, Brazil, dorsal habitus. **F**. *I. nigricans* (Westwood, 1847) (CEMT), Pedrinhas, Maranhão, Brazil, dorsal habitus. Scale bars: A, D–F = 1 mm; B–C = 0.5 mm.

Material examined

BRAZIL – **Amazonas** • 1 spec.; Querari Pelotão; 1°05′ N, 69°51′ W; 7–23 Apr. 1993; C. Motta *et al.* leg.; CEMT • 1 spec.; Rio Urubu; 2°10′ S, 59°49′ W; 12–13 Mar. 83; P. Bührnheim and N. Otaviano leg.; CEMT • 1 spec.; Manaus, Embrapa-CPAA projeto SHIFT, 010 Km 24-251; 17 Jun. 1993; A. Pamplona leg.; light trap; CEMT. – **Maranhão** • 1 spec.; São Luis Island, Pedrinhas; 6 May 1987; E.C. Bergmann leg.; mangrove area, MA 23 ENDO 13; black light trap; CEMT. – **Pará** • 1 spec.; Monte Dourado; Jan. 1993; CEMT • 1 spec.; same data as for preceding; Aug. 1993; CEMT • 1 spec.; same data as for preceding; Dec. 1992; CEMT.

Sexual dimorphism

Males with spur of protibia inwardly hooked; females with spur straight.

Collecting information

Specimens were collected in mangrove areas with black light and from detritus cavities of nests of *Atta sexdens* (Linnaeus, 1758) (Stebnicka 2007a).

Iarupea serratipennis (Petrovitz, 1973)
Figs 15A–B, 46A

Euparia serratipennis Petrovitz, 1973: 185.

Iarupea serratipennis – Stebnicka 1999a: 292.

Diagnosis

Length 4.5–5.0 mm. Body dark reddish brown. Head with longitudinal wrinkles posteriorly convergent anteriorly to frontoclypeal suture; clypeus emarginate. Pronotal surface with coarse, big and wide punctures, margins between punctures sometimes obsolete giving the pronotal surface a wrinkled appearance; anterior angles explanate; lateral margins weakly explanate, strongly sinuate.

Material examined

BRAZIL – **Acre** • 1 spec.; Rio Branco; CEMT. – **Distrito Federal** • 1 spec.; Brasília; Jan. 2001; N. Degallier leg.; CEMT • 1 spec.; same data as for preceding; elev. 1100 m; Mar. 2001; light; CEMT • 1 spec.; same data as for preceding; Jan. 2003; CEMT • 1 spec.; Planaltina; 15°36′24″ S, 47°44′42″ W; 7 Nov. 2015; A. Specht leg.; light; CEMT • 1 spec.; same data as for preceding; 4 Apr. 2016; CEMT. – **Espírito Santo** • 1 spec.; [Barra de São Francisco], Corrego Itá; Nov. 1954; W. Zikan leg.; CEMT. – **Mato Grosso** • 1 spec.; Diamantino, Reserve Vale da Solidão; 14°22′ S, 56°07′ W; elev. 450 m; 30 Oct. 2013; E. Furtado leg.; CEMT. – **Mato Grosso do Sul** • 1 spec.; Selvíria, UNESP farm; 18 Mar. 1999; C.A.H. Flechtmann leg.; *Brachiaria decumens* pasture; black light trap; CEMT • 1 spec.; same data as for preceding; 27 May 1999; C607; CEMT • 1 spec.; same data as for preceding; *Bubalus bubalis* dropping; 29 Aug. 1993; CEMT. – **Minas Gerais** • 1 spec.; Cordisburgo; Jan. 1998; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Itumirim; 21°20′24″ S, 44°48′6″ W; 19 Oct. 2016; Viera, F.Z. Vaz-de-Mello and J. Louzada leg.; light; CEMT. – **Piauí** • 2 specs; Teresina, Embrapa CPAMN; 4 Nov. 2011; M. Bevilaqua and R. Querino leg.; CEMT • 1 spec.; same data as for preceding; 5°02′15″ S, 42°47′13″ W; elev. 61 m; 10 Jun. 2011; R.B. Querino leg.; CEMT. – **Rio de Janeiro** • 1 spec.; Nova Friburgo; Jan. 1999; P. Grossi leg.; CEMT.

Sexual dimorphism

Males with protibial apical spine downwardly and inwardly bent.

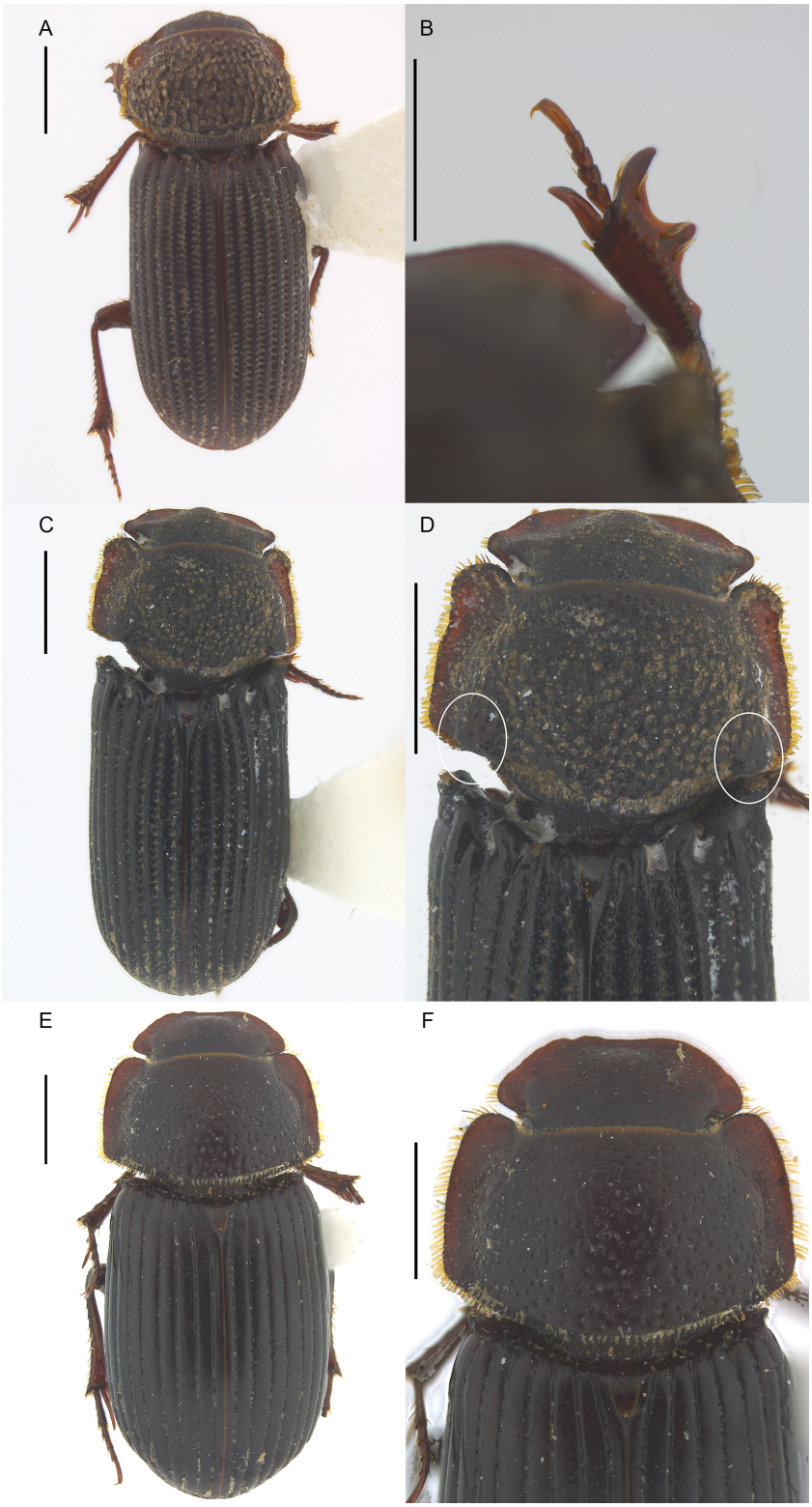

Fig. 15. A–B. *Iarupea serratipennis* (Petrovitz, 1973), ♂ (CEMT), Brasília, Distrito Federal, Brazil. **A**. Dorsal habitus. **B**. Protibia. **C–D**. *I. lopeteguii* Martínez, 1953 (CEMT), Varzea Grande, Mato Grosso, Brazil. **C**. Dorsal habitus. **D**. Pronotum in dorsal view (circles indicate tubercles on the posterior margin of pronotum). **E–F**. *Martineziana argentina* (Harold, 1867) (CEMT), Ijaci, Minas Gerais, Brazil. **E**. Dorsal habitus. **F**. Pronotum in dorsal habitus. Scale bars: A, C–F = 1 mm; B = 0.5 mm.

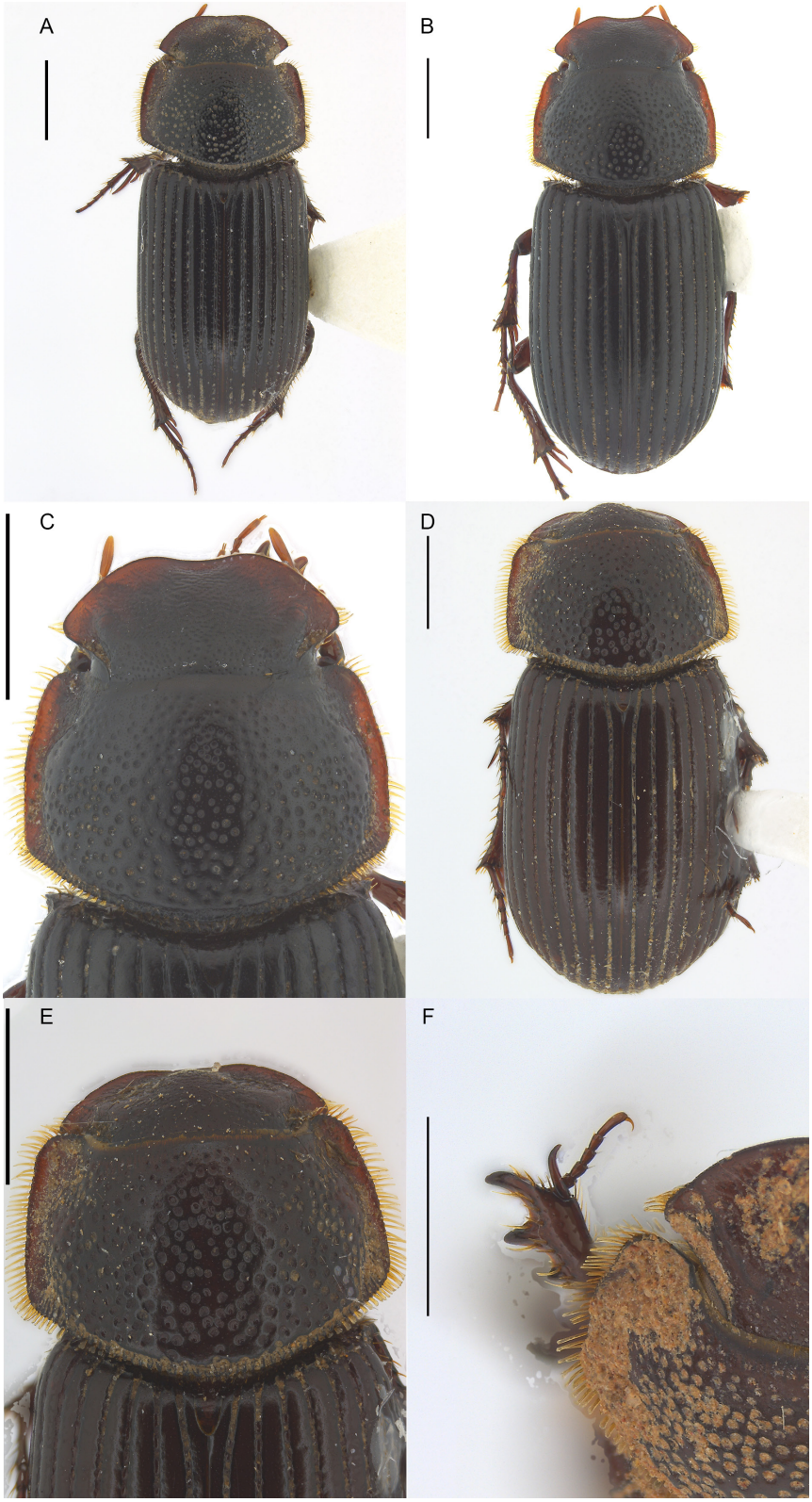

Fig. 16. A. *Martineziana separata* (Schmidt, 1909) (CEMT), Várzea Grande, Mato Grosso, Brazil, dorsal habitus. **B–C**. *M. dutertrei* (Chalumeau, 1983) (CEMT), Assis Brasil, Acre, Brazil. **B**. Dorsal habitus. **C**. Pronotum, dorsal view. **D–E**. *M. excavaticollis* (Blanchard, 1843), ♂ (CEMT), Rio Branco, Acre, Brazil. **D**. Dorsal habitus. **E**. Pronotum, dorsal view. **F**. Apical spur. Scale bars: A–E = 1 mm; F = 0.5 mm.

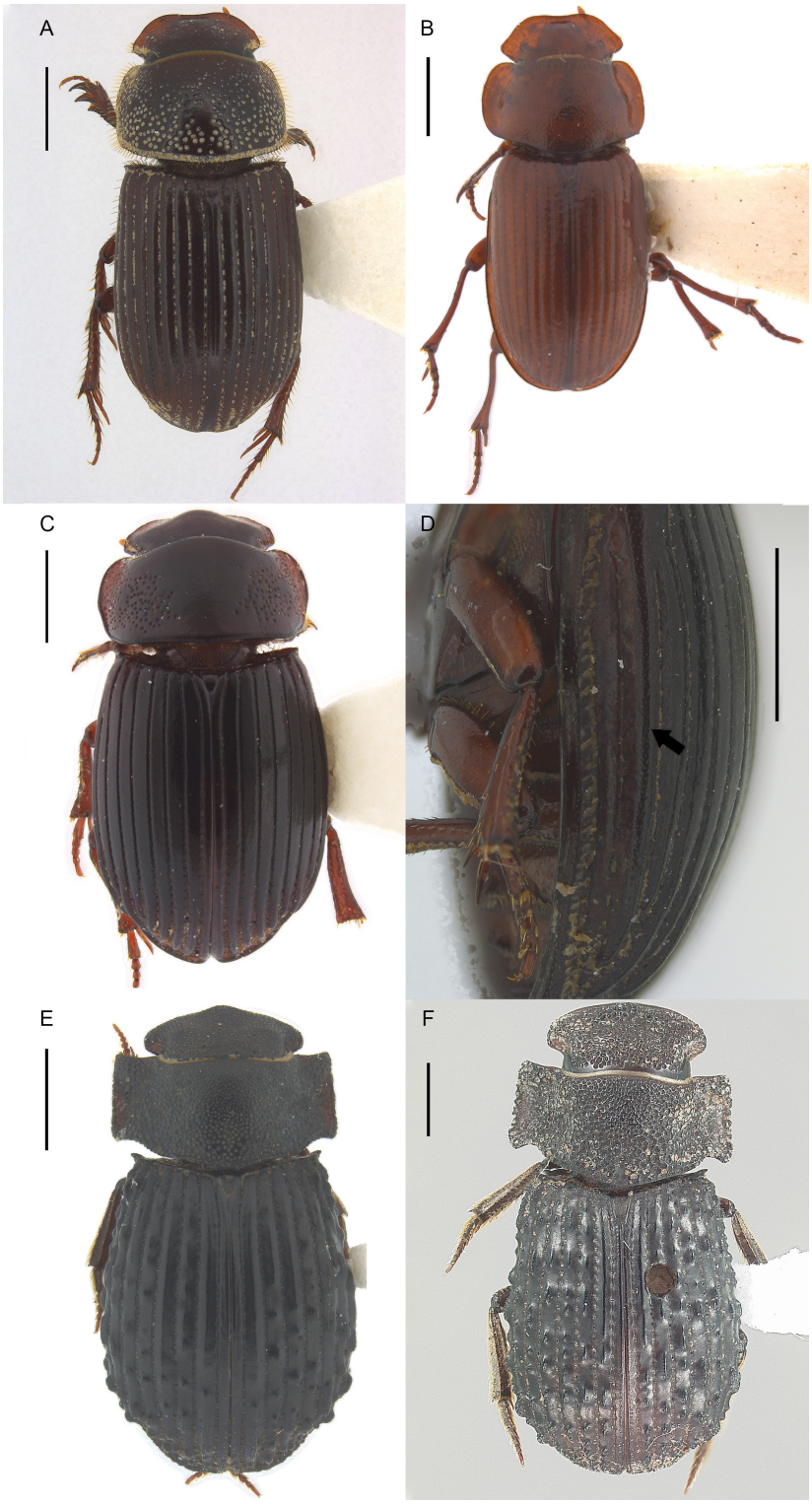

Fig. 17. A. *Martineziana simplex* (Balthasar, 1963) (CEMT), Itacoatiara, Amazonas, Brazil, dorsal habitus. **B**. *Selviria matogrossoensis* Stebnicka, 1999 (CEMT), Selvíria, Mato Grosso do Sul, Brazil, dorsal habitus. **C–D**. *Flechtmanniella laticollis* (Petrovitz 1973) (CEMT), Caravelas, Bahia, Brazil. **C**. Dorsal habitus. **D**. Elytra lateral view (arrow indicates 9th interstria). **E**. *Batesiana tuberculata* (Bates, 1887) (CEMT), Chapada dos Guimarães, Mato Grosso, Brazil, dorsal habitus. **F**. *B. chamorroi* Skelley & Vaz-de-Mello, 2022, holotype, ♀ (CEMT), dorsal habitus (image by Paul Skelley). Scale bars = 1 mm.

Collecting information

Specimens were collected in *Urochloa decumbens* pastures with black light traps and extracted from *Bubalus bubalis* (Linnaeus, 1758) faecal masses. Specimens were also collected in *Atta sexdens* (Stebnicka 2007a). Specimens were found at altitudes ranging from 61 to 1100 metres.

Genus ***Lomanoxia*** Martínez, 1951

Diagnosis

Length 4.8–5.2 mm. Body broad, oval, dorsally pilose, covered with testaceous setae, reddish brown. Head variably sculptured; clypeus sinuate. Pronotum with anterior angles forwardly explanate; lateral margins fringed with setae; posterior angles densely setaceous. Elytra wide, setaceous, striae impressed. Mesocoxal cavity partially enclosed by meso and meta ventrites, elongate, almost reaching epipleuron; mesepimeron and metepisternum not visible (see Fig. 32B).

Remarks

Lomanoxia has seven recognized species and has been reported from Argentina, Brazil, Costa Rica, Paraguay and Surinam (Skelley & Howden 2003; Stebnicka 2009). A key for all species can be found in Skelley & Howden (2003).

Key to species of *Lomanoxia* from Brazil (adapted from Skelley & Howden 2003) (Portuguese version in Supp. file 1)

1. Only fifth abdominal ventrite strigate anteriorly ..... ***L. canthonopsis*** Skelley & Howden, 2003 (Fig. 18E)
– Others abdominal ventrite, besides the fifth, strigate anteriorly 2

2. Posterior margin of pronotum with median lobe (Fig. 18A–C) 3
– Posterior margin of pronotum without median lobe ..... ***L. ituensis*** Stebnicka, 1999 (Fig. 18D)

3. In dorsal view, margin of pronotum sinuate before posterior margin ..... ***L. melloi*** Stebnicka, 1999 (Fig. 18C)
– In dorsal view, margin of pronotum not sinuate before posterior margin (Fig. 18A) ..... ***L. costulata*** (Harold, 1867) (Fig. 18A–B)

Lomanoxia canthonopsis Skelley & Howden, 2003
Figs 18E, 46B

Lomanoxia canthonopsis Skelley & Howden, 2003: 186–189.

Diagnosis

Length 4.8–5.0 mm. Body extremely broad. Head minutely granulated; clypeus emarginate. Pronotum setaceous; anterior angles expanded forward; posterior margin of pronotum without lobe. Elytra wider than pronotum. Abdomen with only fifth ventrite strigate anteriorly.

Material examined

BRAZIL – **Rondônia** • 1 spec.; Santo Antônio, Rio Madeira, Margem Direita; 1 Nov. 2004; Luminosa leg.; CEMT.

FRENCH GUIANA • 1 spec.; Cayenne, Montage des Chevaux; 4°44′56″ N, 52°26′28″ W; elev. 75 m; 27 Jan. 2013; SEAG leg.; CEMT.

TRINIDAD AND TOBAGO – **Tunapuna-piarco** • 2 specs; Arima Valley, Simla (Ny Zoo.Soc.Sta); 11 Jun. 1977; R.E. Woodruff leg.; *Atta* nest debris; CEMT.

Sexual dimorphism

Pygidium of male with sharp transverse groove and depressed opaque area; female with pygidium raised and glossy.

Collecting information

Specimens were collected with light traps and inside nests of *Atta* sp. and *Atta cephalotes* (Linnaeus 1758) (Skelley & Howden 2003).

Lomanoxia costulata (Harold, 1867)
Figs 18A–B, 46B

Euparia costulata Harold, 1867b: 82.

Lomanoxia costulata – Martínez 1951: 29.

Diagnosis

Length 4.5–5.0 mm. Head with minute granules; clypeus sinuate. Pronotum setaceous; anterior angles expanded forward; lateral margins of pronotum contiguous to posterior margin, fringed by setae of similar size of those of posterior angles; posterior margin of pronotum with medial lobe. Elytra broad, not broader than pronotum; interstriae tectiform, with minute setaceous elevations. Abdomen with ventrites four and five strigate anteriorly.

Material examined

BRAZIL – **Goiás** • 1 spec.; Niquelândia; Oct. 1993; CEMT. – **Mato Grosso** • 1 spec.; Rondonópolis, P.E. Dom Osório Stoffel; 16°38′ S, 54°45′ W; 6 Mar. 2021; V. Costa-Silva leg.; light; CEMT. – **Mato Grosso do Sul** • 1 spec.; Selvíria, UNESP Farm; 3 Oct. 1993; C.A.H. Flechtmann leg.; *Brachiaria decumbens* pasture; black light trap; CEMT • 1 spec.; Três Lagoas, Horto Novo Palmito Três Lagoas Agroflorestal; 4 Mar. 1993; C.A.H. Flechtmann leg.; black light trap; CEMT • 1 spec.; Três Lagoas, Horto Rio Verde, Três Lagoas Agroflorestal; 23 Nov. 1993; C.A.H. Flechtmann leg.; Cerrado stand; black light trap; CEMT • 1 spec.; Três Lagoas, Horto Barra do Moeda Três Lagoas Agroflorestal; 30 Nov. 1993; C.A.H. Flechtmann leg.; *Eucalyptus grandis* stand; black light trap; CEMT • 1 spec.; Três Lagoas, Horto Rio Verde, Três Lagoas Agroflorestal; 12 Jan. 1995; C.A.H. Flechtmann leg.; *Eucalyptus grandis* stand; CEMT. – **Minas Gerais** • 2 specs; Teixeiras; Nov. 1996; Hardy and Harrison leg.; CEMT. – **Rio de Janeiro** • 1 spec.; Rio de Janeiro, Floresta da Tijuca; J.E Celso leg.; CEMT.

Sexual dimorphism

Males and females are indistinguishable from each other.

Collecting information

Specimens were collected with UV light traps in *Eucalyptus grandis* forests and *Urochloa decumbens* pastures. Some specimens were extracted from nests of *Atta sexdens* (Stebnicka 2007a).

Remarks

This species is extremely similar to *Lomanoxia melloi*. In addition to the characters provided in the key, *Lomanoxia costulata* can be identified by a subtly broader elytra.

Lomanoxia ituensis Stebnicka, 1999
Figs 18D, 46B

Lomanoxia ituensis Stebnicka, 1999b: 284–285.

Diagnosis

Length 5.0–5.2 mm. Head with minute granules; clypeus sinuate. Pronotum setaceous; anterior angles expanded forward; posterior margin without medial lobe, semicircular. Elytra with interstriae setaceous and flattened. Abdomen with ventrites four and five strigate.

Type material examined

Paratype

BRAZIL• 1 ♀; "[white paper, handwritten] BR-MS- Campo/ Grande ex pitfall trap/Koller W.W./ [to the side] 10-VII-1995. // [white paper, handwritten] CODE/ C-11. // [blue paper, prited] Paratype/ *Lomanoxia*/*ituensus* sp.n./dt.Z.Stebnicka. // [white paper, printed] Q.R. code to the side/CEMT/ CUIABÁ/00111112"; CEMT.

Other material examined

BRAZIL – **Minas Gerais** • 1 spec.; Lavras; 3 Dec. 97; CEMT. – **Rio de Janeiro** • 1 spec.; Pedro do Rio; Dec. 1993; A. Bello leg.; CEMT.

Sexual dimorphism

Males and females are indistinguishable from each other.

Collecting information

Specimens were collected with pitfall traps.

Lomanoxia melloi Stebnicka, 1999
Figs 18C, 47A

Lomanoxia melloi Stebnicka, 1999b: 285.

Diagnosis

Length 4.8–5.0 mm. Head with minute granules; clypeus sinuate. Pronotum setaceous; anterior angles expanded forward; lateral margin fringed with setae, sinuate before posterior angles; setae before and at sinuate area, larger than those at the posterior angles. Elytra with interstriae weakly convex, with row of setaceous granules. Abdomen with ventrites four and five strigate.

Type material examined

Paratype

BRAZIL • 1 ♀"[white paper, handwritten] BRASIL:MG/Cordisburgo/I-1998/Vaz-de-Mello. // [blue paper, prited] Paratype/*Lomanoxia*/*ituensus* sp.n./dt.Z.Stebnicka. // [white paper, printed] Q.R. code to the side/CEMT/ CUIABÁ/00111115"; CEMT.

Other material examined

BRAZIL – **Bahia** • 1 spec.; Caravelas; 20 Jan. 1997; Anjos and Silva leg.; CEMT. – **Distrito Federal** • 1 spec.; Brasília; Dec. 2008; N. Degallier leg.; CEMT • 2 specs; Planaltina; 15°36′24″ S, 47°44′42″ W; 4 Nov. 2015; A. Specht leg.; light; CEMT • 2 specs; same data as for preceding; 5 Nov. 2015; light; CEMT • 1 spec.; same data as for preceding; 8 Nov. 2015; CEMT • 1 spec.; Planaltina, Embrapa

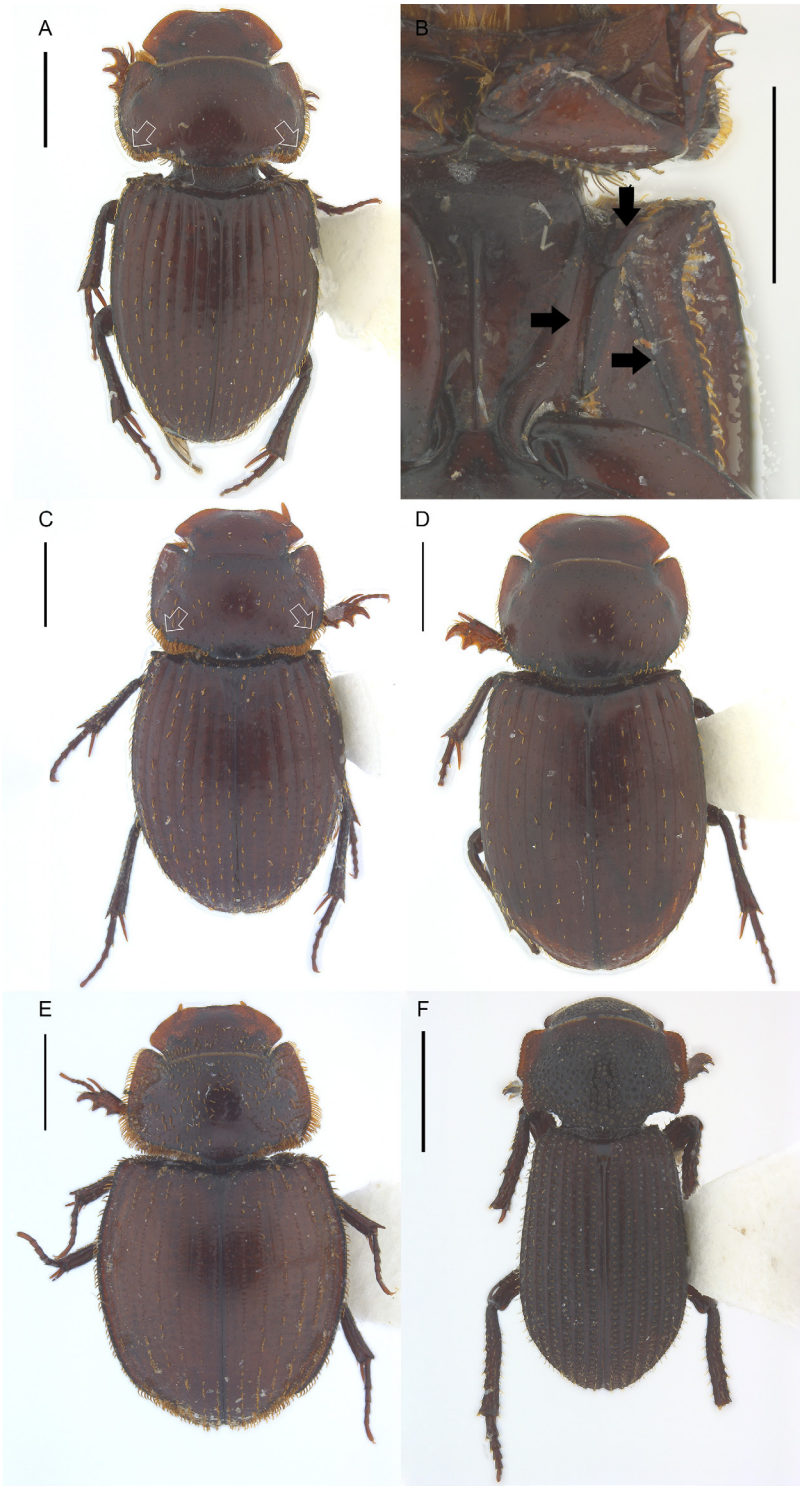

Fig. 18. A–B. *Lomanoxia costulata* (Harold, 1867) (CEMT), Niquelância, Goiás, Brazil. **A**. Dorsal habitus. **B**. Mesocoxa (arrows indicate the coxal cavity and the elitral epipleuron covering the mesepimeron and metepisternum). **C**. *L. melloi* Stebnicka, 1999 (CEMT), Caravelas, Bahia, Brazil. dorsal habitus. **D**. *L. ituensis* (CEMT), Lavras, Minas Gerais, Brazil, dorsal habitus. **E**. *L. canthonopsis* Skelley & Howden, 2003 (CEMT), Santo Antônio, Rondônia, Brazil, dorsal habitus. **F**. *Euparixoides johnsoni* Stebnicka, 1998 (CEMT), Parque nacional Guajara-Mirim, Rondônia, Brazil, dorsal habitus. Scale bars: A–F = 1 mm.

Cerrados; 15°35′54″ S, 47°42′51″ W; 18 Nov. 2005; C. Oliveira leg.; agricultural area; light; CEMT. – **Goiás** • 1 spec.; Goiânia; 13 Jan. 1997; P.B. Silva leg.; CEMT. – **Maranhão** • 1 spec.; Mirador, PE Mirador, Base Geraldina; 20–24 Dec. 2006; R.O. Sousa and J.C Silva leg.; light; CEMT. – **Mato Grosso** • 4 specs; Diamantino, Alto Rio Arinos; Jan. 2001; E. Furtado leg.; CEMT. – **Minas Gerais** • 2 specs; Cordisburgo, Fazenda Pontinha; Jan. 1998; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Guanhães; Oct. 1991; CEMT • 9 specs; Ijaci, Fazenda FAEPE; Nov. 2002; J. Louzada leg.; light; CEMT • 1 spec.; same data as for preceding; Nov. 2002; CEMT • 1 spec.; Itumirim, Serra do Janela; 2019; J. Louzada and L. Vieira leg.; CEMT • 2 specs; Lavras; UFLA; 8 Nov. 1997; CEMT • 2 specs; Montes Claros; Jan. 1991; CEMT • 2 specs; Montes Claros; Mar. 1991; CEMT • 1 spec.; Nova Era, Mar.; 1987; CEMT • 2 specs; Viçosa; 11 Dec. 1984; Fiuza and Martins leg.; CEMT • 2 specs; Visconde do Rio Branco; Jan. 1998; W. Zikan leg.; CEMT. – **Rio de Janeiro** • 1 spec.; Nova Friburgo; Nov. 2002; J. Louzada; CEMT • 3 specs; Nova Friburgo, Macaé de Cima; Jan. 1999; P. Grossi leg.; CEMT • 1 spec.; Nova Friburgo, Conquista; Jan. 2004; E. Grossi leg.; CEMT • 1 spec.; Nova Friburgo; Jan. 2005; E.J. Grossi leg.; CEMT • 1 spec.; Pedro do Rio; 3 Dec. 1989; Bello leg.; CEMT • 1 spec.; Pedro do Rio; Nov. 1991; A. Bello leg.; CEMT. – **Rio Grande do Sul** • 2 specs; El Dorado do Sul, EEA-UFRGS; 16 Dec. 1996; Carvalho and Silva leg.; light trap; CEMT. – **Rondônia** • 1 spec.; Vilhena; 12 Nov. 1997; O. Roppa and M. Magno leg.; CEMT. – **São Paulo** • 2 specs; Descalvado, Fazenda Itaúnas; 6 Oct. 2006; N.W. Perioto leg.; forest + *Citrus* plantation; pitall; CEMT.

Sexual dimorphism

Male with fifth abdominal ventrite shorter than that of female.

Collecting information

Specimens are attracted to light.

Remarks

This species is extremely similar to *Lomanoxia costulata*. In addition to the characters provided, *L. melloi* has a slightly thinner elytra when compared with *L. costulata*.

Genus ***Lomanoxoides*** Stebnicka, 1999

Diagnosis

Length 4.0–5.5 mm. Body strongly convex, oval, piceous to reddish dark brown. Head densely punctate, frons with punctures closer and stronger; clypeus emarginate, margin, in frontal view, thickened at emargination. Pronotum with tubercles and/or lateral fossae variably developed and positioned; lateral margins always fringed with long setae. Elytral interstriae convex, tectiform.

Remarks

Lomanoxoides has seven recognized species known from Argentina, Brazil, Costa Rica, Guiana, Honduras, Panama, Paraguay, Peru, and Venezuela (Stebnicka 2009). For a key to all its species see Stebnicka & Skelley (2005).

Key to *Lomanoxoides* species from Brazil (Portuguese version in Supp. file 1)

1. Posterior margin of pronotum medially with a single, large, medial fossa (Fig. 19A–B) 2
– Posterior margin of pronotum without medial fossa 3

2. Pronotum with deep posterior fossa; large punctures scattered over pronotal surface. Elytra setaceous ..... ***L. selviriaensis*** Stebnicka, 1999 (Fig. 19A)
– Pronotum with posterior fossa not as deep; large punctures restricted to posterior third of pronotum. Elytra glabrous ..... ***L. bitubericollis*** (Schmidt, 1909) (Fig. 19B)

3. Pronotum with two tubercles near posterior margin ..... ***L. setosus*** (Balthasar, 1941) (Fig. 19C)
– Pronotum without tubercles near posterior margin ..... ***L. tesari*** (Balthasar, 1963) (Fig. 19D–E)

Lomanoxoides bitubericollis (Schmidt, 1909) (new record)
Figs 19B, 47B

Euparia bitubericollis Schmidt, 1909c: 44.

Lomanoxia bitubericollis – Chalumeau & Howde 1984: 87.

Diagnosis

Length 5.0–5.5 mm. Body piceous. Head punctate; larger punctures restricted on frons; clypeus emarginate. Pronotum punctate; larger punctures restricted to posterior third; pronotal surface irregular, laterally tuberculate, with shallow posteromedial fossa; lateral margins explanate, with evident, but short, spatulate setae. Elytral interstriae convex, glabrous with row of fine punctures medially.

Material examined

BRAZIL – **Rio Grande do Sul** • 1 spec.; Bagé; 31°21′21″ S, 54°02′28″ W; 25–28 Dec. 2017; P.G. Silva leg.; light; CEMT.

Sexual dimorphism

Sexual dimorphism slight, males with penultimate abdominal ventrite more slender than that of female.

Collecting information

Specimens were collected at light.

Lomanoxoides selviriaensis Stebnicka, 1999
Figs 19A, 47B

Lomanoxoides selviriaensis Stebnicka, 1999a: 296.

Diagnosis

Length 5.0–5.5 mm. Body piceous. Head punctate; punctures larger and closer on frons. Pronotum with punctures of two sizes, larger punctures scattered across surface, mixed with moderate punctures; surface uneven with two lateral tubercles and large deep posteromedial fossa; lateral margins explanate. Elytra setaceous with interstriae convex, tectiform.

Type material examined

Paratype

BRAZIL • 1 ♂; "[yellow paper, printed] BR-MS-Selvíria/ UNESP Farm/Ex Guzerá cattle drop-/ping *Brachiaria de-/cumbens* pasture/ Rodrigues, S. R. col/ [handwritten to the side] 11-IV-1993.// [red paper, printed] Type/ *Lomanoxoides*/ *selviriaensis*/ Dt.Z.Stebnicka // [yellow paper] [handwritten] *Lomanoxoides/ selviriaensis*/ [typewritten] DET. Z.Stebninicka"; CEMT.

Other material examined

BRAZIL – **Mato Grosso** • 1 spec.; Diamantino, Reserve Vale da Solidão; 14°22′ S, 56°07′ W; elev. 450 m; 16 Jan. 2013; CEMT • 1 spec.; Cuiabá; May 2010; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Cuiabá, Boa Esperança; Nov. 2011; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; 15°36′31″ S, 56°03′22″ W; Dec. 2008; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Cuiabá, Recanto do Siriema; 15°35′32″ S, 56°01′38″ W; 4 Nov. 2004; R.V. Nunes leg.; light; CEMT • 1 spec.; Cuiabá,

UFMT; 24 Sep. 2016; J. Soares leg.; CEMT • 1 spec.; Porto Esperidão; Nov. 1984; Magno and Alvarenga leg.; CEMT. – **Mato Grosso do Sul** • 1 spec.; Selvíria, UNESP Farm; 11 Apr. 1993; S.R. Rodrigues leg.; *Brachiaria decumbens* pasture; Guzera bovine dropping; CEMT • 2 specs; same data as for preceding; 18 Mar. 1999; C.A.H. Flechtmann leg.; black light trap; CEMT • 1 spec.; same data as for preceding; 19 Oct. 1999; CEMT.

Sexual dimorphism

Sexual dimorphism slight, males with penultimate abdominal ventrite more slender than females.

Collecting information

Specimens were collected in *Urochloa decumbens* with UV light traps and extracted from *Guzera* bovine fecal masses (Stebnicka 1999a).

Lomanoxoides setosus (Balthasar, 1941)
Figs 19C, 47B

Odontolytes setosus Balthasar, 1941a: 174.
Ataenius thoracalis Petrovitz, 1964: 284.

Lomanoxoides thoracalis – Stebnicka 1999a: 294.
Lomanoxoides setosus – Stebnicka & Galante 2007: 135.

Diagnosis

Length 3.9–4.1 mm. Body reddish brown. Head punctate; punctures coarser and closer on frons; clypeus medially emarginate. Pronotum not explanate, fringe with evident setae; posterior margin with two medial tubercles. Elytral interstriae convex, each with row of small setaceous tubercles, each tubercle with a single seta.

Material examined

BRAZIL – **Amazonas** • 1 spec.; "olo" [unknown meaning] Km 133, 15 Mar. 1979; Young and Arias leg.; CEMT. – **Bahia** • 1 spec.; Itamarajú; 16°57′58″ S, 39°26′01″ W; Apr. 2011; C.M.P. Leite leg.; CEMT • 1 spec.; Wenceslau Guimarães, Matriz; 13°41′21″ S, 39°21′52″ W; elev. 146 m; C.M.P. Leite leg.; pitfall; CEMT • 1 spec.; same data as for preceding; Jan. 2011; Q6 matriz; CEMT. – **Distrito Federal** • 1 spec.; Brasilia; Nov. 2002; N. Degallier leg.; CEMT • 1 spec.; same data as for preceding; elev. 1000 m; Mar. 2001; N. Degallier leg.; light; CEMT • 4 specs; Planaltina, Embrapa Cerrados; 15°35′54″ S, 47°42′51″ W; 2 Dec. 2005; C. Oliveira leg.; área agrícola; light; CEMT. – **Mato Grosso** • 1 spec.; Itanhangá; 18–22 Oct. 2016; J.V. Korgut leg.; manually; CEMT • 1 spec.; Nova Xavantina; 14°62′35″ S, 52°48′57″ W; 23 Oct. 2009; V. Campos leg.; Cerrado; CEMT • 1 spec.; Porto Estrela, Est. Eco Serra das Araras, Boca do José; Nov. 2013; R.V. Nunes leg.; FIT; CEMT. – **Mato Grosso do Sul** • 1 spec.; Guia Lopes da Laguna; 12 Dec. 2007; A.R. Abot leg.; light trap; CEMT. – **Minas Gerais** • 2 specs; Águas Vermelhas; Dec. 1998; A. Bello and F.Z.Vaz-de-Mello leg.; CEMT • 1 spec.; Montes claros; Jan. 1991; CEMT • 1 spec.; same data as for preceding; Dec. 1992; CEMT • 1 spec.; Nova era; Jul. 1987; CEMT • 1 spec.; Santa Barbara; 8 Dec. 1994; J.C. Zanuncio leg.; CEMT • 1 spec.; Teixeiras; Nov. 1996; Hardy and Harrison leg.; CEMT • 1 spec.; Viçosa, Campus UFV; Nov. 1997; F.Z. Vaz-de-Mello leg.; CEMT. – **Paraíba** • 1 spec.; Areia, Mata de Pau Ferro; 3–4 May 2000; M. Avany leg.; light trap; CEMT. – **Paraná** • 1 spec.; Icaraíma, Estância Felipe; 23°20′32″ S, 53°39′09″ W; elev. 300 m; 2019; Felipe and Rodrigues leg.; CEMT. – **Pernambuco** • 3 specs; Igarassu, RECD; 25 May 2007; Cavalcanti *et al.* leg.; CEMT • 4 specs; same data as for preceding; 27 Apr. 2007; Costa *et al.* leg.; CEMT.

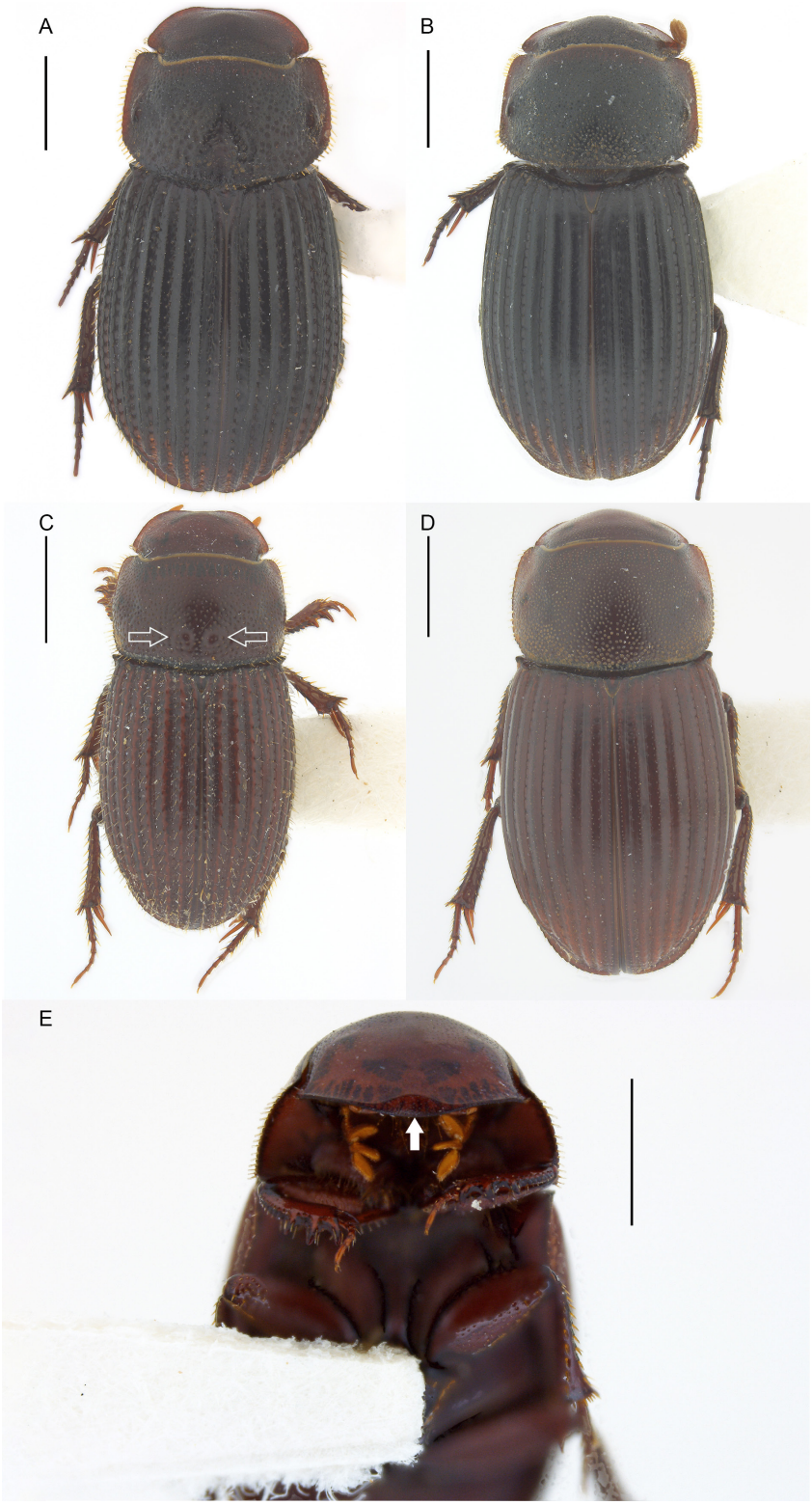

Fig. 19. A. *Lomanoxoides selviriaensis* Stebnicka, 1999 (CEMT), Selvíria, Mato Grosso do Sul, Brazil, dorsal habitus **B**. *L. bitubericollis* (Schmidt, 1909) (CEMT), Bagé, Rio Grande do Sul, Brazil, dorsal habitus. **C**. *L. setosus* (Balthasar, 1941) (CEMT), Itamarajú, Bahia, Brazil, dorsal habitus. **D–E**. *L. tesari* (Balthasar, 1963) (CEMT), Planaltina, Distrito Federal, Brazil. **D**. Dorsal habitus. **E**. Head, ventral view (arrows indicate widened clypeal margin). Scale bars = 1 mm.

FRENCH GUIANA • 1 spec.; Cayenne, Montage des Chevaux; 4°44′56″ N, 52°26′28″ W; elev. 75 m; 27 Jan. 2013; SEAG leg.; CEMT.

UNKNOWN COUNTRY • 1 spec.; [without data]; CEMT.

Sexual dimorphism

Slight, males with penultimate abdominal ventrite more slender than that of females.

Collecting information

Specimens were collected with light traps and were found at altitudes ranging from 75 to 1000 metres.

Lomanoxoides tesari (Balthasar, 1963)
Figs 19D–E, 48A

Euparia tesari Balthasar, 1963: 285.
Ataenius fastigatus Petrovitz, 1973: 168.
Ataenius (*Ataenius*) *hrubantovai* Chalumeau, 1992: 198.

Lomanoxoides tesari – Stebnicka 1999a: 295.

Diagnosis

Length 4.8–5.5 mm. Body reddish brown. Head punctate; punctures coarser and closer on frons. Pronotum not explanate, somewhat regularly convex, except by small fovea and tubercle laterally. Elytra margin posteriorly and laterally setaceous; interstriae convex, tectiform with two rows of fine punctures.

Material examined

BRAZIL – **Distrito Federal** • 1 spec.; Planaltina, Embrapa Cerrados; 15°35′54″ S, 47°42′51″ W; 2 Dec. 2005; C. Oliveira leg.; agricultural area; light; CEMT. – **Mato Grosso do Sul** • 1 spec.; Bonito; Fazenda Remanso; 20°47′ S; 56°43′ W; Nov. 2009; F.O. Roque leg.; CEMT. – **Mato Grosso** • 1 spec.; Cuiabá, Boa Esperança; 15°36′31″ S, 56°3′22″ W; Dec. 2008; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Diamantino**,** Alto Rio Arinos; Jan. 2001; E. Furtado leg.; CEMT. – **Minas Gerais** • 2 specs; Águas Vermelhas; Dec. 1997; A. Bello and F.Z. Vaz-de-Mello leg.; CEMT • 2 specs. Cordisburgo; Jan. 1994; F.Z. Vaz-Mello leg.; CEMT • 2 specs; same data as for preceding; Jan. 1998; CEMT • 1 spec.; Cordisburgo, Fazenda Pontinha; Jan. 1998; F.Z. Vaz-de-Mello leg.; CEMT • 2 specs; same data as for preceding; Jan. 1999; F.Z. Vaz-de-Mello leg.; CEMT • 2 specs; Ijaci, Fazenda FAEPE; Nov. 2002; J. Louzada leg.; light; CEMT • 1 spec.; Três Marias; Nov. 1991; CEMT. – **Rio de Janeiro** • 1 spec.; Angra dos Reis, Bracuí, Baixada; 10–11 May 2002; Nessimian leg.; UV light; CEMT.

Sexual dimorphism

Slight, males with penultimate abdominal ventrite slender than that of females.

Collecting information

Specimens were collected with UV light traps, some specimens were found within nests of *Atta sexdens* and in bovine feces (Stebnicka 1999a; Stebnicka & Skelley 2005).

Genus ***Martineziana*** Chalumeau & Özdikmen, 2006

Diagnosis

Length 5.0–6.5 mm. Body elongate, convex, dark brown or piceous. Head with large, gibbous medially; clypeus medially sinuate. Pronotum transverse, with punctures of different sizes, lateral margins fringed

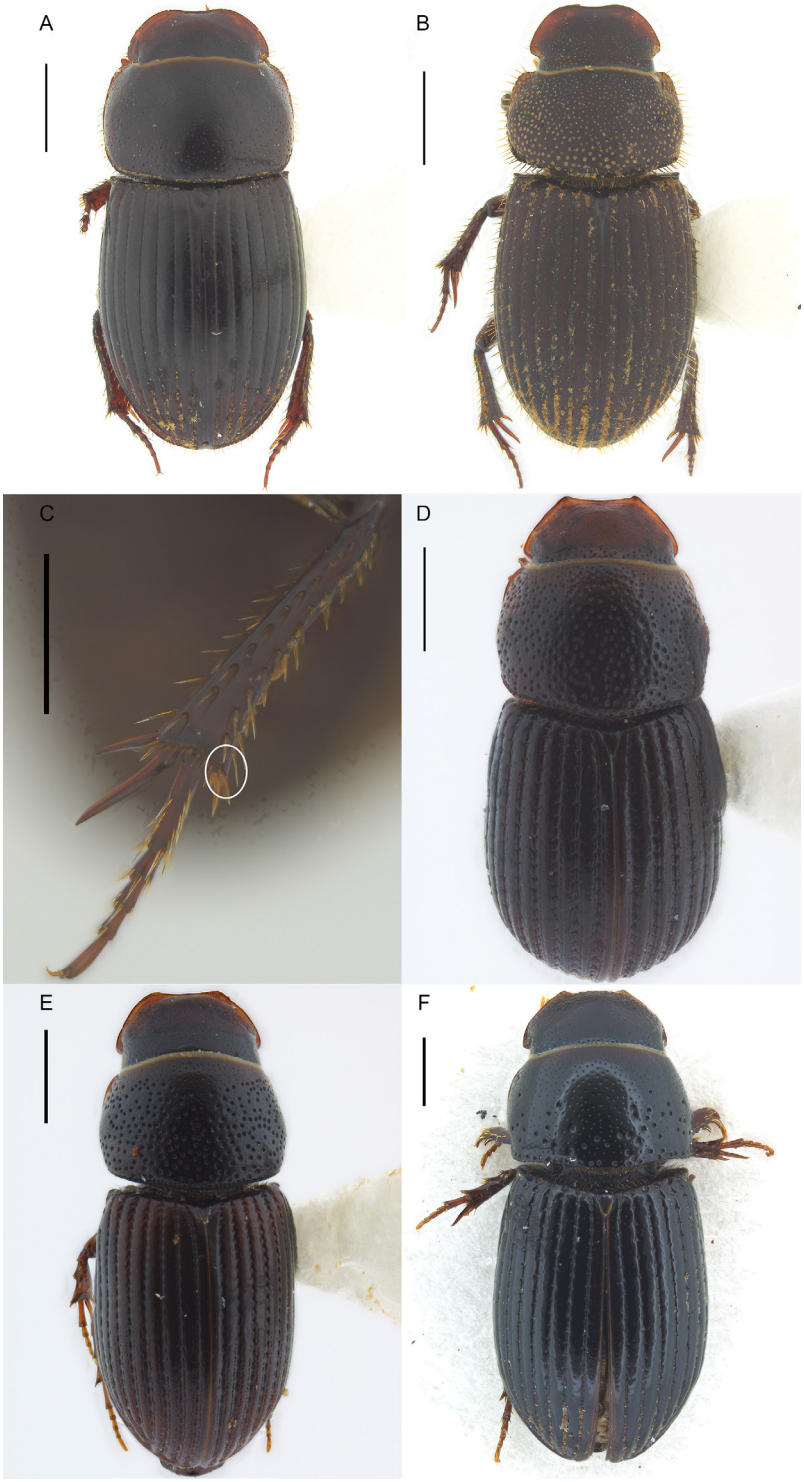

Fig. 20. A. *Paraplesiataenius catarinaensis* Stebnicka, 2003 (CEMT), Piraquara, Paraná, Brazil, dorsal habitus **B–C**. *P. genieri* Stebnicka, 2003 (CEMT), Piraquara, Paraná, Brazil. **B**. Dorsal habitus. **C**. Metatibia (circles indicate lateral spine of metatibia). **D**. *Aphotaenius elegans* Skelley & Vaz-de-Mello, 2020 (CEMT), Carolina, Maranhão, Brazil, dorsal habitus. **E**. *A. gaucho* Skelley & Vaz-de-Mello, 2020 (CEMT), Santa Cruz do Sul, Rio Grande do Sul, Brazil, dorsal habitus. **F**. *A. plaumanni* Cartwright, 1963 (CEMT), Santa Cruz do Sul, Rio Grande do Sul, Brazil, dorsal habitus. Scale bars: A–B = 1 mm; C–F = 0.5 mm.

by large and evident setae; lateral margins of pronotum widely explanate, except in *Martineziana simplex*; lateral and posterior margins furrowed, posterior furrow may be strigate. Elytra glossy.

Remarks

Martineziana has six recognized species distributed across southern United States, Central and South America and Greater Antilles (Stebnicka 2009). A key to all its species can be found in Chalumeau (1983a).

Key to species of *Martineziana* from Brazil (adapted from Chalumeau 1983a) (Portuguese version in Supp. file 1)

1. Head and pronotum covered with setaceous punctures ..... ***M. separata*** (Schmidt, 1909) (Fig. 16A)
– Head and pronotum dorsally glabrous 2

2. Lateral margins of pronotum not explanate ..... ***M. simplex*** (Balthasar, 1963) (Fig. 17A)
– Lateral margins of pronotum explanate (Fig. 16A–E) 3

3. Pronotum with scattered coarse punctures ..... ***M. argentina*** (Harold, 1867) (Fig. 15E–F)
– Pronotum densely punctured, punctures fine and coarse 4

4. Pronotum with punctures of two sizes, fine punctures densely distributed; moderate punctures dense but smaller near anterior margin, progressively larger closer to posterior margin (Fig. 16C); elytra thin ..... ***M. dutertrei*** (Chalumeau, 1986) (Fig. 16B–C)
– Pronotum with punctures of two sizes, fine punctures scattered; coarse punctures dense not particularly smaller near anterior margins (Fig. 16E); elytra wide ..... ***M. excavaticollis*** (Blanchard, 1843) (Fig. 16E–F)

Martineziana argentina (Harold, 1867)
Figs 15E–F, 48B

Euparia argentina Harold, 1867b: 99.

Martinezia argentina – Chalumeau 1983a: 150.
Martineziella argentina – Chalumeau 1986: 386.
Martineziana argentina – Chalumeau & Özdikmen 2006: 70.

Diagnosis

Length 6.5 mm. Body piceous. Head with longitudinal wrinkles, strongly gibbous; clypeus emarginate. Pronotum with punctures of two sizes; minute extremely fine and inconspicuous punctures scattered; larger punctures moderate in size scattered across disc and lateral margins; lateral margins not deeply excavate. Elytra posteriorly widened.

Material examined

BRAZIL – **Minas Gerais** • 6 specs; Ijaci, Fazenda FAEPE; Nov. 2002; J. Louzada leg.; light; CEMT.

Sexual dimorphism

Males with spur of protibia inwardly hooked; spur of females somewhat straight.

Collecting information

Specimens were collected at light and in nest of *Solenopsis saevissima* (Smith, 1855) (Stebnicka 2009).

Martineziana dutertrei (Chalumeau, 1983)
Figs 16B–C, 48B

Martinezia dutertrei Chalumeau, 1983a: 23.

Martineziella dutertrei – Chalumeau 1986: 386.
Martineziana dutertrei – Chalumeau & Özdikmen 2006: 70

non *Myrmecaphodius excavaticollis* – Woodruff 1973: 101.

Diagnosis

Length 5.6 mm. Body thin, dark piceous. Head with longitudinal wrinkles, strongly gibbous medially. Pronotum with punctures of two sizes; fine punctures dense, mixed with larger ones; larger punctures spread across pronotum, smaller anteriorly, larger near posterior and lateral margins. Elytra long, not greatly widened posteriorly.

Material examined

ARGENTINA – **Corrientes** • 1 spec.; Corrientes, Barrio Víctor Colas; 27°28′50″ S 58°47′18″ W; elev. 64 m; 21 Oct. 2012; Polesel *et al.* leg.; CEMT. – **Jujuy** • 1 spec.; Parque Nacional Calilegua, 11 km NW of campground; elev. 1100 m; 14 Jan. 2008; D.M. Takiya leg.; light trap 1; CEMT.

BRAZIL – **Acre** • 1 spec.; Assis Brasil; 10°35′44″ S, 69°37′11″ W; 25 Sep. 2016; Ortiz and Borges leg.; wild environment; CDC light trap; CEMT • 1 spec.; Rio Branco; CEMT • 1 spec.; Rio Branco; 5 Jun. 1995; S.M.F. Almeira leg.; CEMT • 1 spec.; same data as for preceding; Fazenda Catuaba; 2000; CEMT. – **Amazonas** • 1 spec.; Sist. Janauacá, Rio Solimoes; 9 Apr. 1977; Geraldo leg.; CEMT. – **Mato Grosso** • 1 spec.; Cuiabá; Nov. 2009; F.Z. Vaz-de-Mello leg.; CEMT • 2 specs. Diamantino, Alto Rio Arinos; Jan. 2001; E. Furtado leg.; CEMT. – **Rio Grande do Sul** • 3 specs; Bagé; 31°21′05″ S, 54°01′13″ W; elev. 232 m; 2 Feb. 2017; R.N. Sisti *et al.* leg.; forest; CEMT • 7 specs; Eldorado do Sul, EEA-UFRGS; 11 Oct. 1996; Carvalho and Silva leg.; arm. lum; CEMT.

PARAGUAY – **Central** • 1 spec.; Asunción; 20 Apr. 2008; C. Aguiar leg.; CEMT.

UNITED STATES OF AMERICA – **Alabama** • 2 specs; Perry Co, 6.5 mi SW of Marion; 30 Jun. 1987; S.C. Harris leg.; CEMT. – **Mississippi** • 1 spec.; Forrest Co., Hattiesburg, Desoto NF; 25 Jun. 1991; B. Buchli leg.; blacklight trap; CEMT • 1 spec.; Lee Co., 4.8 mi SE of Saltillo; 7 May 1995; J. Dakin leg.; CEMT. – **Virginia** • 1 spec.; Chesapeake, Northwest River State Park; 27 Jul. 1997; M. Hardy leg.; CEMT • 1 spec.; Chesterfield Co., Pocahontas State Park; 27 Jun. 1992; P. Bélanger leg.; CEMT.

Sexual dimorphism

Males with spur of protibia inwardly hooked; spur of females straight.

Collecting information

Specimens were collected with light traps. *Martineziana dutertrei* were reported to be found in galleries of several species of ants of the genus *Solenopsis* Westwood, 1840 (Wojcik *et al.* 1977).

Remarks

Martineziana dutertrei was found in nests of *Solenopsis invicta* Burren, 1972, *S. richteri* Forel, 1913, *S. geminata*, *S. xyloni* McCook, 1879 and *Linepithema humile* (Mayr, 1868) (referred to in the consulted literature as *Iridomyrmex humilis* (Mayr, 1868)) (Wojcik *et al.* 1977). Of the mounds opened by Collins & Making (1971) 98% contained 12 to 20 individuals of *Martineziana dutertrei* (Stebnicka

2007a). The entire life cycle of this species possibly happens inside the nests of these ants. Wojcik *et al.* (1977) found several pupae and larvae in nests of *S. invicta.* The authors believed the species observed was *Martineziana excavaticollis*. Later Stebnicka (2007a) confirmed the species found was actually *Martineziana dutertrei.*

Martineziana excavaticollis (Blanchard, 1843)
Figs 16D–F, 49A

Oxyomus excavaticollis Blanchard, 1843: 184.

Euparia excavaticollis – Harold 1870: 29.
Myrmecaphodius excavaticollis – Woodruff 1973:101.
Martinezia excavaticollis – Wojcik *et al*. 1977: 328–334. — Chalumeau 1983a: 146.
Martineziella excavaticollis – Chalumeau 1986: 386.

Diagnosis

Length 6.0 mm. Body broad, dark brown. Head with transverse wrinkles, medially gibbous. Pronotum transverse, punctate with punctures of two sizes; fine punctures inconspicuous among the extremely large punctures. Elytra short, broad, interstriae microreticulate with inconspicuous punctures.

Material examined

ARGENTINA – **San Luis** • 1 spec.; Desaguadero; Feb. 2000; G. Arriágada leg.; CEMT • 1 spec.; Belgrano, Fundo El Molle; 33°02′22″ S, 66°30′47″ W; elev. 622 m; 15–16 Dec. 2015; G. Arriágada leg.; collected with light; CEMT.

BRAZIL – **Acre** • 1 spec.; Rio Branco, Faz Catuaba; 2000; CEMT. – **Distrito Federal** • 1 spec.; Brasilia, Fazenda Água Limpa; Nov. 2010; C. Suinagua leg.; CEMT. – **Mato Grosso** • 1 spec.; Sesc Pantanal; 16 Nov. 2001; light trap; CEMT • 2 specs; Alta Floresta, Chácara recanto das Orquíedeas; 7 Aug. 2012; A. Petini-Beneli leg.; CEMT • 1 spec.; Cotriguaçú, Fazenda São Nicolau; 10 Dec. 2009; M.R. Barreto leg.; forest; blacklight trap; CEMT • 1 spec.; same data as for preceding; 30 Oct. 2014; W. Chamorro leg.; blacklight; CEMT • 1 spec.; same data as for preceding; 9°49′08″ S, 58°15′40″ W; 19–24 Oct. 2012; F.Z. Vaz-de-Mello leg.; PPBioP1; CEMT • 1 spec.; same data as for preceding; 9°49′09″ S, 58°15′31″ W; 28–30 Oct. 2017; F.Z. Vaz de Mello *et al.* leg.; CEMT • 1 spec.; same data as for preceding; 9°49′09″ S, 58°15′31″ W; 21 Oct. 2018; V. Costa-Silva *et al.* leg.; CEMT • 1 spec.; same data as for preceding; 9°51′20″ S, 58°14′55″ W; Nov. 2014; R.V. Nunes and A. Asenjo leg.; light; CEMT • 2 specs; same data as for preceding; airport; 9°51′52″ S, 58°13′45″ W; 2 Oct. 2017; F.Z. Vaz-de-Mello leg.; light; CEMT • 4 specs; Cuiabá; 15°35′32″ S, 56°01′39″ W; elev. 80 m; Jul. 2014–Jan. 2015; R.V. Nunes leg.; CEMT • 1 spec.; Cuiabá, Boa Esperança; Oct. 2016; F.Z. Vaz-de-Mello leg.; CEMT • 2 specs; same data as for preceding; 15°36′31″ S, 56°03′22″ W; Dec. 2008; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; UFMT; 20 Apr. 2009; K.F. Santos leg.; coleta ativa; CEMT • 1 spec.; Nov. 2009; R. Miyazaki leg.; CEMT • 1 spec.; Duque de Caxias; 3 Jan. 2011; F. Simioni leg.; manually; CEMT • 1 spec.; Duque de Caxias, Recanto dos Pássaros; 5 May 2009; K.A. Azevedo leg.; coleta manually; CEMT • 1 spec.; Duque de Caxias, Res. Coxipó; Oct. 2012; F.M. Lima leg.; CEMT • 1 spec.; Poconé; 21 Oct. 1953; C.R. Gonçalves leg.; CEMT • 1 spec.; Chapada dos Guimarães; 25 May 2001; A.F. Ramos leg.; light trap; CEMT • 2 specs; same data as for preceding; 22 May 2001; A.F. Ramos leg.; light trap; CEMT • 6 specs; Várzea Grande; 15°40′ S, 56°10′ W; Nov. 2021–Feb. 2022; J. Arias leg.; CEMT.

Sexual dimorphism

Males with spur of protibia inwardly hooked; spur of females straight.

Collecting information

Specimens were collected with UV light traps.

Martineziana separata (Schmidt, 1909)
Figs 16A, 48B

Euparia separata Schmidt, 1909c: 44.

Martinezia separa [sic!] – Chalumeau 1983a: 146.
Martineziella separata – Chalumeau 1986: 386.
Martineziana separata – Chalumeau & Özdikmen 2006: 70.

Diagnosis

Length 5.0 mm. Body piceous. Head and pronotum covered with fine setae. Head covered with small setaceous tubercles. Pronotum with punctures of two sizes; moderate, setaceous punctures mixed with wide coarse areolate punctures. Elytra with striae deep; interstriae convex, with rows of punctures on each side.

Material examined

BRAZIL – **Mato Grosso** • 1 spec.; Varzea Grande, 2 km W of Parque de Exposição; 22 Mar. 1972; W.H. Whitecomb leg.; CEMT • 2 specs; Varzea Grande, Sítio Toca da Coruja; 15°33′07″ S, 56°19′07″ W; elev. 230 m; 18 Oct. 2020; A. Petini-Beneli leg.; CEMT.

Sexual dimorphism

Unknown. Based on the other species of the genus, males probably have the spur of the protibia inwardly hooked.

Collecting information

Unknown.

Martineziana simplex (Balthasar, 1963)
Figs 17A, 49A

Euparia simplex Balthasar, 1963: 284.
Martinezia cambeforti Chalumeau, 1983a: 145.

Martineziella cambeforti – Chalumeau 1986: 186.
Martineziana simplex – Stebnicka 2009: 21.

Diagnosis

Length 4.30–4.60 mm. Body dark reddish brown. Head with weak or indistinct transverse wrinkles. Pronotum with punctures of two sizes; fine punctures everywhere densely distributed; coarser punctures scarce near anterior margin, abundant near lateral and posterior margins; lateral margins not explanate; lateral and posterior marginal furrow present. Elytra wider posteriorly.

Material examined

BRAZIL – **Amazonas** • Amazonas • 1 spec.; Itacoatiara, Fazenda Aruana, Am010, Km 215; 20–23 Aug. 1990; C.S. Motta, F.J.A. Peralta and B. Rochin-Teles leg.; UV light; CEMT • 3 specs; same data as for preceding; INPA • 1 spec.; same data as for preceding; C.S. Motta *et al.* leg.; CEMT • 3 specs; same data as for preceding; 14–17 May 1991; C.S. Motta *et al*. leg. CEMT • 5 specs; same data as for

preceding; INPA • 1 spec.; same data as for preceding; 18–21 Sep. 1990; C.S. Motta, R.L.M. Ferreira and R. Andreazze leg.; CEMT • 4 specs; same data as for preceding; INPA • 3 specs; same data as for preceding; 13–16 Feb. 1991; C.S. Motta, R. Andreazze and V. Kawazoe leg.; CEMT • 13 specs; same data as for preceding; INPA • 1 spec.; Manaus, Reserva Ducke; 2°55′51″ S, 59°58′59″ W; Mar. 2004; L. Montel leg.; light; INPA. – **Distrito Federal** • 1 spec.; Brasilia; Dec. 2003; N. Degallier leg.; CEMT. – **Goiás** • 1 spec.; P.N. Emas; Nov. 1999; F. Rodrigues leg.; CEMT. – **Mato Grosso** • 1 spec.; Res. Papagaio, BR-364, Km 555; 2 Oct. 1984; J. Elias leg.; light trap; CEMT • 1 spec.; Sesc Pantanal; 15 Apr. 2002; light trap; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; Oct. 2014; R. Stofel leg.; CEMT • 1 spec.; same data as for preceding; airport; 9°51′52″ S, 58°13′45″ W; 2 Oct. 2017; F.Z. Vaz-de-Mello *et al.* leg.; light trap; CEMT • 1 spec.; Cuiabá; 15°35′32″ S, 56°01′29″ W; elev. 80 m; Jul. 2014–Jan. 2015; R.V. Nunes leg.; CEMT • 1 spec.; Trindade U.B.S., Nortwestern pole; 1 Oct. 1984; E. Binda leg.; CEMT. – **Mato Grosso do Sul** • 7 specs; MS-080, Km 48, NW of Campo Grande; 6 Jun. 1986; J. Senatore leg.; CEMT • 1 spec.; Guia Lopes da Laguna; 22 Feb. 2008; A. Abot leg.; light trap; CEMT • 1 spec.; Selvíria, UNESP farm; 17 Jan. 1991; C.A.H. Flechtmann leg.; *Brachiaria decumens* pasture; black light; CEMT. – **Piauí** • 4 specs; Teresina, CPAMN; 5°02′16″ S, 42°47′13″ W; elev. 61 m; 10 May 2011; R.B. Querino leg.; light trap; CEMT.

FRENCH GUIANA • 1 spec.; Cayenne, Montagne des Chevaux; 4°44′56″ N, 52°26′28″ W; elev. 75 m; 4 Feb. 2013; SEAG leg.; CEMT.

Sexual dimorphism

Males with spur of protibia inwardly hooked; spur of females straight.

Collecting information

Specimens were collected with UV light traps in *Urochloa decumbens* pasture.

Genus ***Odontolytes*** Kozhantshikov, 1916

Diagnosis

Length 3.0–8.0 mm. Body oval or elongate, dark reddish brown to brown piceous. Head broad, almost as wide as lateral margins of pronotum, variably punctate. Pronotum with variably shaped and distributed punctures; lateral margins, explanate or not, transverse or not. Elytra with humeral denticle developed. Mesoventrite with one or two callosities, or if callosity not present, mesometaventral carina present. Mesoventrite and metatarsus with dense setae on its ventral surface or not.

Remarks

Odontolytes has 19 recognized species reported from the USA (Florida), Cuba, and several countries from Central and South America (Stebnicka 2009). Stebnicka (2002) presents a key to all species described at the time. *Odontolytes waoraniae* Stebnicka & Skelley, 2005 and *O. tectipennis* Stebnicka & Skelley, 2005 were described after Stebnicka (2002) and are absent from the key. The current taxonomic status of *Odontolytes* was reviewed by Krell *et al.* (2011).

Key to species of *Odontolytes* from Brazil (adapted from Stebnicka 2002) (Portuguese version in Supp. file 1)

1. Mesoventrite with one or two callosities (Figs 21C–F, 22A) 2
– Mesoventrite with longitudinal mesometasternal carina 8

2. Mesoventrite with two callosities (Fig. 21C) 3
– Mesoventrite with one callosity (Figs 21F, 22A) 4

3. Metafemur with complete posterior marginal line, more than half the length of femur (Fig. 21D) ..... ***O. iquitosae*** (Stebnicka, 2002) (Fig. 21B–D)
– Metafemur with incomplete posterior marginal line, less than half the length of femur .... ***O. capitosus*** (Harold, 1867) (Fig. 21A)

4. Mesoventrite callosity with sides somewhat straight, callosity thin, rectangular (Fig. 22B) .... ***O. teutoniae*** (Stebnicka, 2002) (Fig. 22A–B)
– Mesoventrite callosity with side arched, callosity somewhat wide, semicircular (Fig. 21F) 5

5. Posteromedial process of proventrite acuminate, glossy .... ***O. minutus*** (Petrovitz, 1973) (Fig. 22C)
– Posteromedial process wide, scabrous (Fig. 21F) 6

6. Lateral margin of pronotum widely explanate ..... ***O. huebneri*** (Petrovitz, 1970) (Fig. 21E–F)
– Lateral margins of pronotum not widely explanate 7

7. Metafemur with incomplete posterior marginal line .... ***O. loretoensis*** (Stebnicka, 2002) (Fig. 22D)
– Metafemur with complete posterior marginal line ..... ***O. transversarius*** (Schmidt, 1909) (Fig. 22E)

8. Scutellum with two lateral fovea near anterior margin 9
– Scutellum smooth, finely punctate 10

9. Clypeus weakly sinuate, truncate ..... ***O. andamanensis*** Kozhantshikov, 1916 (Fig. 23A)
– Clypeus clearly sinuate ..... ***O. guayara*** (Stebnicka, 2002) (Fig. 23F)

10. Interstriae distinctively punctate, 10th interstriae with median row of minute granules .... ***O. denominatus*** (Chevrolat, 1864)
– Interstriae impunctate or finely impunctate, 10th interstriae without median row granules .... ***O. rondoniae*** (Stebnicka, 2002) (Fig. 23B)

Odontolytes andamanensis Kozhantshikov, 1916
Figs 23A, 49B

Odontolytes andamanensis Kozhantshikov, 1916: 206–207.
Phalangochaeta amazonica Petrovitz, 1961a: 148–149.

Odontolochus (*Odontolytes*) *andamanensis* – Balthasar 1964: 523.
Auperia amazonica – Stebnicka 2002: 771.
Auperia andamanensis – Stebnicka 2009: 29.
Odontolytes andamanensis – Krell *et al*. 2011: 174.

Diagnosis

Length 3.0–3.5 mm. Body piceous. Head wide, everywhere punctate; clypeus subtruncate with an anterior glossy region with fine small tubercles. Pronotum transverse; sides weakly explanate. Scutellum with longitudinal carina. Elytra with interstriae convex, punctate. Meso-metaventral carina present; mesoventrite without callosity.

Material examined

BRAZIL – **Amazonas** • 2 specs; Manaus; 2°25′ S, 59°50′ W; Feb. 1994; R. Didham leg.; Winkler extractor; CEMT • 9 specs; same data as for preceding; INPA • 3 specs; same data as for preceding; May 1994; CEMT • 4 specs; same data as for preceding, INPA.

Sexual dimorphism

Unknown

Collecting information

Specimens were found in forest litter and collected using with Winkler extractor and black light traps (Stebnicka 2009).

Odontolytes capitosus (Harold, 1867)
Figs 21A, 49B

Ataenius capitosus Harold, 1867a: 83.

Auperia capitosa – Stebnicka 2002: 768.
Odontolytes capitosus – Krell *et al.* 2011: 175.

Diagnosis

Length 6.0–8.0 mm. Body oval, piceous. Head densely punctate with fine punctures; clypeus emarginate. Pronotum with punctures moderate, separated by their diameter; sides not explanate, only anterior angles; posterior angles sinuate. Metafemur with incomplete posterior line. Tarsus without dense setae on its ventral surface. Mesoventrite with double callosity.

Material examined

BRAZIL – **Acre** • 1 spec.; Rio Branco; 14 Jun. 1996; CEMT • 1 spec.; same data as for preceding; 15 Apr. 1987; Fazolin and Murilo leg.; UV; CEMT. – **Espírito Santo** • 1 spec.; Linhares, Flona de Goytacazes; 19°26′10″ S, 40°04′24″ W; 10 Nov. 2010; D.S. Martins leg.; primary forest; light; CEMT. – **Mato Grosso** • 1 spec.; Rio Branco; Dec. 1984; Magno and Alvarenga leg.; CEMT.

ECUADOR – **Cotopaxi** • 1 spec.; Los Libres; elev. 1900 m; 4 Nov. 1994; N. Marchan leg.; CEMT. – **Orellana** • 1 spec.; Estación de Diversidad Tiputini; elev. 250 m; Sep. 1997; P. Araujo leg.; trampa de luz [light trap]; CEMT**.**

FRENCH GUIANA • 1 spec.; Cayenne, Montagne des Chevaux; 4°44′56″ N, 52°26′28″ W; elev. 75 m; 27 Jan. 2013; SEAG leg.; light (GEML); CEMT.

MEXICO – **Oaxaca** • 2 specs; Acatlán, Laguna Verde; 2 May 2004; J.V. Bueno leg.; selva baja [low land frorest] leaf litter; CEMT.

PERU – **Loreto** • 1 spec.; 21 km W of Iquitos; 10 Jul. 2001; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of females, the disc of the pygidium is longer and the metatarsals are thicker.

Collecting information

Specimens were collected at light at high altitudes from 250 to 1200 metres and on basal debris of *Bactris* Jacq. ex Scop. palm (Stebnicka 2002). Some specimens were also found in forest litter.

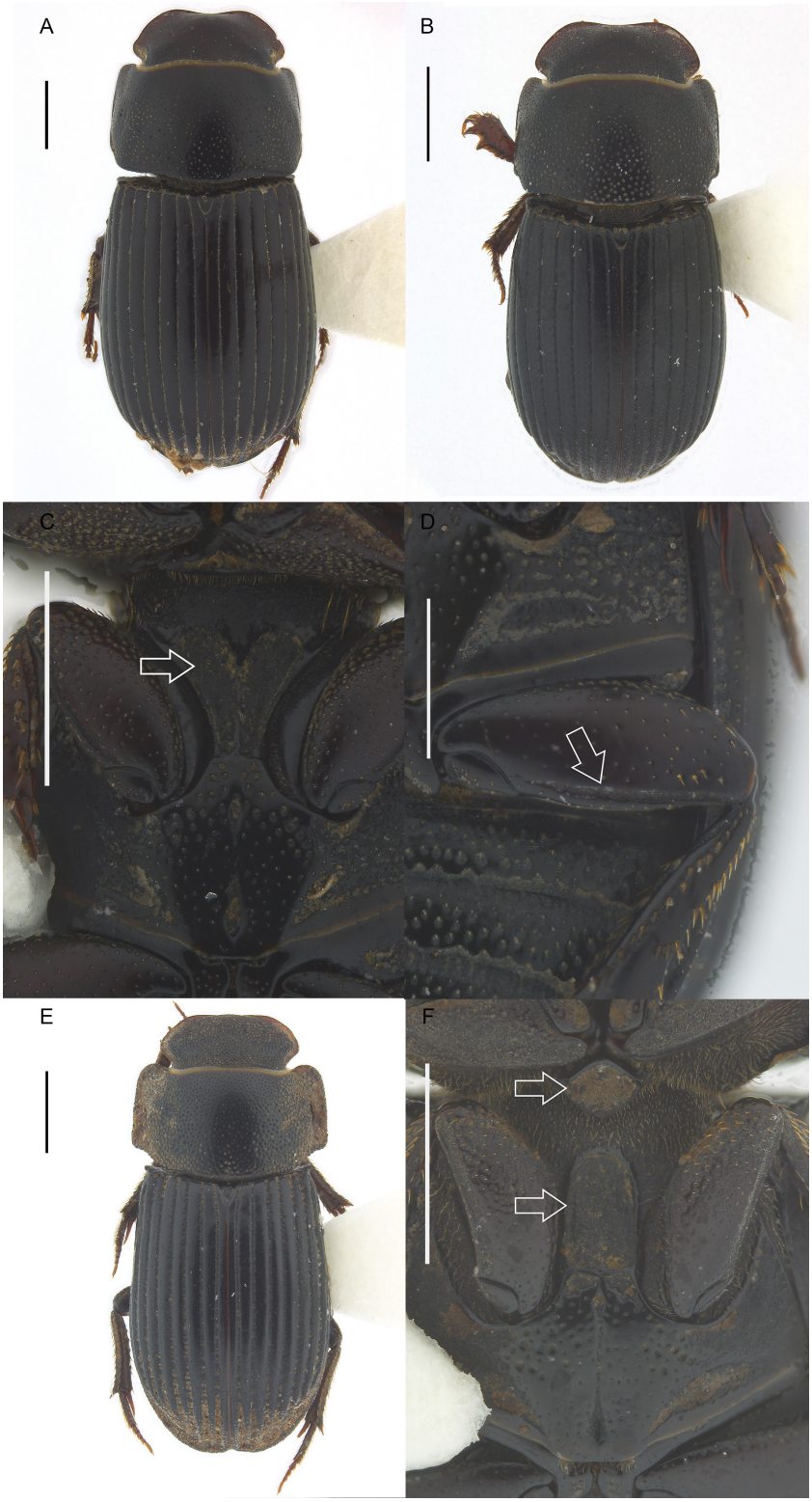

Fig. 21. A. *Odontolytes capitosus* (Harold, 1867) (CEMT), Rio Branco, Acre, Brazil, dorsal habitus. **B–D**. *O. iquitosae* (Stebnicka, 2002) (CEMT), Assis Brasil, Acre, Brazil. **B**. Dorsal habitus. **C**. Double callosity of mesosventrite. **D**. Metafemur, complete posterior margin. **E–F**. *O. huebneri* (Petrovitz, 1970) (CEMT), Assis Brasil, Acre, Brazil. **E**. Dorsal habitus. **F**. Meso- and metaventrite, ventral view (arrows indicate callosity and prosternal process). Scale bars: A–C, E–F = 1 mm; D = 0.5 mm.

Odontolytes denominatus (Chevrolat, 1864)
Fig. 49B

Auperia denominata Chevrolat, 1864: 413.
Ataenius arator Harold, 1869b: 102.
Ataenius euglyptus Bates, 1887: 97.
Odontolytes brevinotus Chapin, 1940: 39–40.
Ataenius benjaminbanderai Islas, 1955: 497–499.
Phalangochaeta grandis Petrovitz, 1973: 179–181.
Ataenius sciurus Cartwright, 1974: 65.

Odontolytes denominatus – Krell *et al.* 2011: 175.

Diagnosis

Length 6.4–7.0 mm. Body elongate, piceous. Head punctate; punctures elongate near frons; clypeus emarginate. Pronotum with double (fine and coarse) puncturation; lateral margins weakly explanate. Elytra convex, humeral denticle sharp; interstriae convex, visibly punctate; 10th interstria flat with row of minute granules. Mesoventrite with fine mesometasternal carina.

Sexual dimorphism

Males with pronotal punctures more widely spaced and posterior marginal line deeper and wider than those of females; fifth abdominal ventrite shorter than that of female, disc of pygidium is longer and the basal tarsomere of metatarsus are thicker.

Collecting information

Specimens were collected with black lights.

Remarks

Specimens were unavailable for the present study, the information here presented was taken from the available literature (Stebnicka 2002, 2009).

Odontolytes guayara (Stebnicka, 2002) (new record)
Figs 22F, 49B

Auperia guayara Stebnicka, 2002: 756.

Odontolytes guayara – Krell *et al*. 2011: 175.

Diagnosis

Length 4.2–5.0 mm. Body oblong, reddish browns. Head coarsely punctate; clypeus sinuate; laterally with faint wrinkles. Pronotum with punctures fine and coarse; fine punctures mixed with coarse punctures; coarse punctures wider and confluent closer to lateral margins. Elytra with interstriae convex, crenulate by coarse strial punctures. Mesometaventral carina present. Tarsus with dense setae on its ventral surface.

Material examined

BRAZIL – **Acre** • 1 spec.; Mâncio Lima, Parna Serra do Divisor; 7°26′46″ S, 73°39′28″ W; 11–15 Dec. 2019; FIT; CEMT. – **Amazonas** • 1 spec.; Itacoatiara, Fazenda Itapiranga; 2°42′14″ S, 58°31′49″ W; 29 Jan.–6 Feb. 2015; R.S. Moura leg.; pitfall 3; CEMT.

FRENCH GUIANA • 1 spec.; Cayenne, Montagne des Chevaux; 4°44′56″ N, 52°26′28″ W; elev. 75 m; 11 Feb. 2013; SEAG leg.; FIT (V); CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of females and longer disc of pygidium.

Collecting information

Specimens were collected with pitfall and flight intercept traps.

Odontolytes huebneri (Petrovitz, 1970)
Figs 21E–F, 50A

Euparia huebneri Petrovitz, 1970: 232.

Phalangochaeta huebneri – Chalumeau & Howden 1984: 87.
Auperia huebneri – Stebnicka 2002: 770.
Odontolytes huebneri – Krell *et al.* 2011: 175.

Diagnosis

Length 4.8–5.0 mm. Body piceous. Head with dense and coarse punctures; punctures elongate anterior to frontoclypeal suture. Pronotal surface everywhere densely and coarsely punctured; punctures larger and closer near lateral margins; lateral angles greatly explanate. Scutellum with two foveae. Elytra with deep and wide striae; interstriae convex and shagreened. Proventral process wide and scabrous. Mesoventrite with wide callosity. Ventral surface of meso- and metatarsi with dense setae.

Material examined

BRAZIL – **Acre** • 1 spec.; Assis Brasil; 10°35′44″ S, 69°37′12″ W; 20 Sep. 2016; Ortiz and Borges leg.; CEMT. – **Amazonas** • 4 specs; Novo Airão; 2°38′39″ S, 60°56′07″ W; 27–28 Jul. 2011; F. Xavier and A. Agudelo leg.; CEMT • 1 spec.; same data as for preceding; 27 Mar. 2011; J.A. Rafael, D. Takiya and J.T. Câmara leg.; mobile light trap; INPA • 1 spec.; Rio Tarumã Mirim, NW of Manaus; 5 Dec. 1975; J. Adis leg.; INPA • 1 spec.; same data as for preceding; 27 Apr. 1977; J. Adis leg.; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of females and longer disc of pygidium.

Collecting information

Specimens were collected with flight intercept traps and UV light traps in meaodw regions (Stebnicka 2009).

Odontolytes iquitosae (Stebnicka, 2002)
Figs 21B–D, 50B

Auperia iquitosae Stebnicka, 2002: 768.

Odontolytes iquitosae – Krell *et al*. 2011: 175.

Diagnosis

Length 4.0–5.0 mm. Body oval, robust piceous. Head densely punctate with fine punctures; clypeus sinuate. Pronotum with moderate punctures, separated by their diameter; lateral margins not explanate,

anterior angles explanate, posterior angles sinuate. Mesoventrite with double callosity. Metafemur with complete marginal line.

Material examined

BOLIVIA – **Santa Cruz** • 1 spec.; 3.7 km SSE of Buena Vista, Hotel Flora & Fauna; elev. 430 m; 5–15 Nov. 2001; M.C. Thomas and B.K. Dozier leg.; tropical transition forest; black light trap; CEMT.

BRAZIL – **Acre** • 2 specs; Assis Brasil; 10°35′44″ S, 69°37′12″ W; 20 Sep. 2016; Ortiz and Borges leg.; CEMT. – **Rondônia** • 1 spec.; Jaci-paraná, Rio Madeira; 4 Oct. 2004; margem direita interior [interior right margin]; light trap 34b; CEMT.

FRENCH GUIANA • 2 specs; Cayenne, Montagne des Chevaux; 4°44′56″ N, 52°26′28″ W; elev. 75 m; 11 Feb. 2013; SEAG leg.; FIT (V); CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of females; disc of pygidium is longer and metatarsals are thicker.

Collecting information

Specimens were collected with flight intercept and with light traps. A specimen was found in forest litter near *Ficus* L. fruits (Stebnicka 2002).

Odontolytes loretoensis (Stebnicka, 2002) (new record)
Figs 22D, 49B

Auperia loretoensis Stebnicka, 2002: 766–767.

Odontolytes loretoensis – Krell *et al*. 2011: 175.

Diagnosis

Length 3.8–4.0 mm. Body reddish brown. Head coarsely punctate; punctures somewhat oval near frontoclypeal suture; clypeus sinuate. Pronotum punctate with punctures of two sizes, fine punctures inconspicuous among the coarse punctures; coarse punctures larger and confluent laterally; laterally not explanate. Scutellum foveate. Proventral process wide and scabrous. Mesoventrite with wide oval callosity.

Material examined

BRAZIL – **Pará** • 2 specs; Almeirim; 5 Mar. 2011; F.M. França leg.; CEMT.

FRENCH GUIANA • 1 spec.; Cayenne, Montagne des Chevaux; 4°44′56″ N, 52°26′28″ W; elev. 75 m; 31 Mar. 2013; SEAG leg.; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of female and longer disc of pygidium.

Collecting information

No information available in literature or with material studied.

Odontolytes minutus (Petrovitz, 1973)
Figs 22C, 50B

Euparia minuta Petrovitz, 1973: 188.

Phalangochaeta minuta – Chalumeau & Howden 1984: 87.
Auperia minuta – Stebnicka 2002: 765.
Odontolytes minutus – Krell *et al*. 2011: 175.

Diagnosis

Length 3.8–4.0 mm. Body elongate, reddish brown. Head punctate; punctures elongate anteriorly to frontoclypeal suture; clypeus sinuate. Pronotum coarsely punctate, punctures larger and confluent near lateral margins; anterior angles explanate. Scutellum foveate. Proventral process glossy acuminate. Mesoventrite with large callosity.

Material examined

BRAZIL – **Mato Grosso do Sul** • 8 specs; Selvíria; 30 Apr.–1 Dec. 2011; Caterino and Tischechkin leg.; Cerradão; FIT; CEMT. – **Mato Grosso** • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 8–14 Apr. 2011; Peres-Filho leg.; light trap; CEMT. – **Rondônia** • 1 spec.; 62 km SW of Ariquemes, nr Fazenda Rancho Grande; 28 Oct. 1996; K.M.V. Vulinec leg.; CEMT. – **São Paulo** • 1 spec.; Descalvado, Fazenda Itaunas; 22 Sep. 2005; N.W. Perioto leg.; pitfall; CEMT • 1 spec.; same data as for preceding; 6 Oct. 2005; N.W. Perioto leg.; forest + *Citrus* plantation; pitfall; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of female and longer disc of pygidium.

Collecting information

Specimens were collected in leaf litter in the Amazon rainforest, in cerradão forest with flight intercept trap. Specimens were also collected with light and pitfall traps.

Odontolytes rondoniae (Stebnicka, 2002)
Figs 23B, 49B

Auperia rondoniae Stebnicka, 2002: 755.

Odontolytes rondoniae – Krell *et al*. 2011: 175.

Diagnosis

Length 6.5–7.0 mm. Body dark reddish brown. Head coarsely punctate; clypeus sinuate. Pronotum with punctures of two sizes; fine punctures mixed with coarser larger ones; large punctures larger and closer near lateral margins; laterally not explanate. Scutellum not foveolate. Mesometaventral carina present. Meso- and metatarsomeres with dense setae on ventral surface.

Material examined

BRAZIL – **Amazonas** • 1 spec.; Manaus, Alaixo; 3°04′40″ S, 59°59′13″ W; 10 Oct. 2017; F.S. Godoi leg.; light; CEMT.

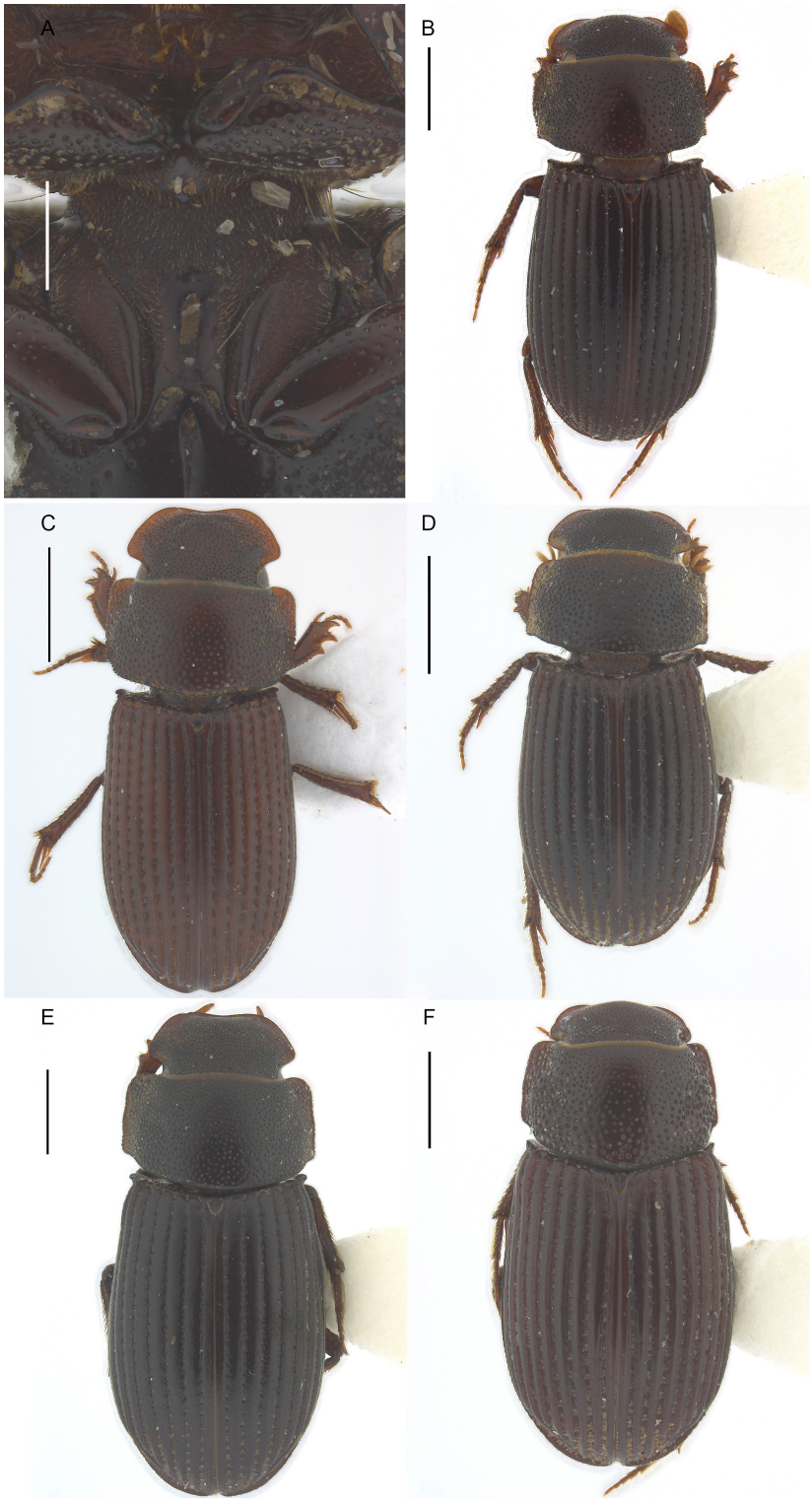

Fig. 22. A–B. *Odontolytes teutoniae* (Stebnicka, 2002) (CEMT), Sooretema, Espírito Santo, Brazil. **A**. Mesoventrite. **B**. Dorsal habitus. **C**. *O. minutus* (Petrovitz, 1973) (CEMT), Selvíria, Mato Grosso do Sul, Brazil, dorsal habitus. **D**. *O. loretoensis* (Stebnicka, 2002) (CEMT), Almeirim, Pará, Brazil, dorsal habitus. **E**. *O. transversarius* (Schmidt, 1909) (CEMT), Assis Brasil, Acre, Brazil, dorsal habitus. **F**. *O. guayara* (Stebnicka, 2002) (CEMT), Mâncio Lima, Acre, Brazil, dorsal habitus. Scale bars: A = 0.5 mm; B–F = 1 mm.

Sexual dimorphism

Males with the disc of pronotum less densely punctate; posterior margin or pronotum with deeper and wider emargination; fifth abdominal ventrite shorter than that of females and longer disc of pygidium.

Collecting information

Specimens were collected with black light trap in tropical rainforests.

Odontolytes teutoniae (Stebnicka, 2002)
Figs 22A–B, 50B

Auperia teutoniae Stebnicka, 2002: 762.

Odontolytes teutoniae – Krell *et al.* 2011: 175.

Diagnosis

Length 4.8–5.0 mm. Body glossy, reddish brown. Head punctate; clypeus, just before margin, glossy with small tubercles; posteriorly with coarse equally spaced, not confluent punctures, punctures smaller on frons. Pronotum with punctures of two sizes, fine and coarse; coarse punctures almost absent on disc, more abundant, larger and closer near lateral margins; without posterior marginal line. Elytral interstriae glossy. Mesoventrite with thin, rectangular callosity; meso- and metatarsi with dense setae ventrally.

Material examined

BRAZIL – **Espírito Santo** • 1 spec.; Sooretama, Reserva Natural da Vale; Dec. 1988; J.S. Santos leg.; CEMT. – **Minas Gerais** • 1 spec.; Guanhães; 19 Apr. 1994; C. Jose and I.O. Zanune leg.; CEMT • 1 spec.; Lavras; 5 Dec. 2002; Proj. Fragm. Entom leg.; FI R10-B; CEMT • 1 spec.; same data as for preceding; 11 Nov. 2002; FI R7-B; CEMT • 3 specs; same data as for preceding; 23 Nov. 2002; FI R9-B; CEMT • 2 specs; Lavras, Mata do Capivari; 21°16′25″ S, 44°16′57″ W; Dec. 2001; G. Schiffler leg.; CEMT • 1 spec.; Viçosa; 13 Mar. 1998; T. Zanuncio leg.; CEMT • 1 spec.; same data as for preceding; 30 Jan. 1995; J.N.C. Louzada leg.; CEMT • 9 specs; same data as for preceding; 6 Feb. 1996; G3; CEMT • 3 specs; same data as for preceding; Mata do Paraiso; Sep. 1994; P.S. Fiúza leg.; CEMT. – **Rio de Janeiro** • 1 spec.; Nova Friburgo; elev. 1000 m; Jan. 2002; E. Grossi and P. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Jan. 1999; P. Grossi leg.; CEMT • 1 spec.; Nova Friburgo, Macané de Cima; elev. 1500 m; Mar. 2000; Lopes-Andrade, Gumier and Vaz-de-Mello leg.; CEMT • 1 spec.; Nova Friburgo, Macané de Cima; Oct. 2000; P. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Dec. 2000; P. Grossi and E. Grossi leg.; CEMT • 6 specs; same data as for preceding; Dec. 2009; E. Grossi leg.; CEMT • 2 specs; Nova Friburgo, Sítio Caturama; 22°16′51″ S, 42°30′43″ W; Nov. 2016; E.G. Grossi leg.; CEMT • 15 specs; Nova Friburgo; Nov. 2002; E.J. Grossi leg.; CEMT • 2 specs; same data as for preceding; Nov. 2016; E. Grossi leg.; CEMT • 1 spec.; Vila do Pião; 27 Dec. 1997; A.Y.M. Kushida leg.; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of females and longer disc of pygidium.

Collecting information

No information available in literature or with materials studied.

Odontolytes transversarius (Schmidt, 1909)
Figs 22E, 50A

Ataenius transversarius Schmidt, 1909c: 43.
Euparia bolivari Petrovitz, 1973: 183.

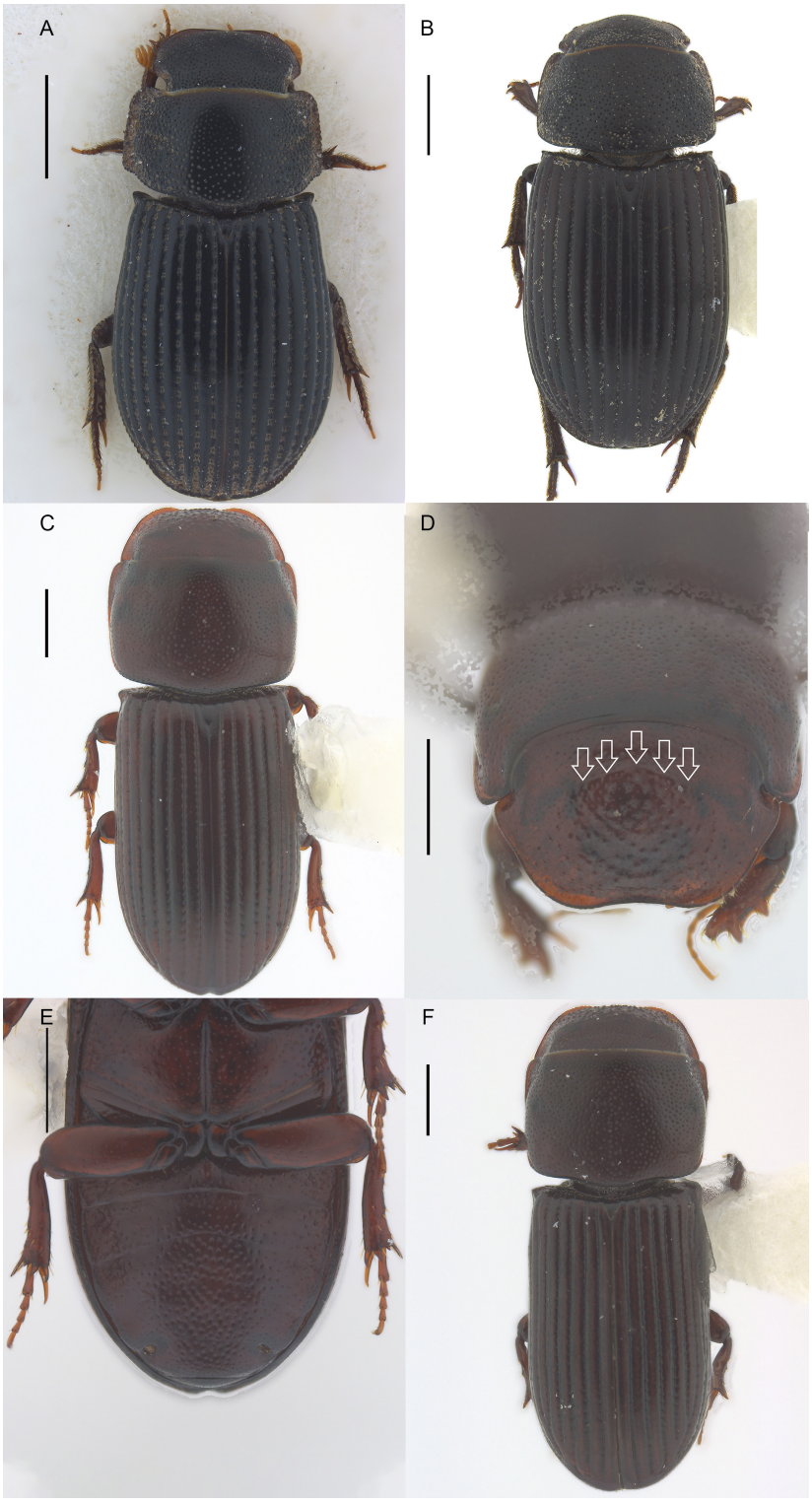

Fig. 23. A. *Odontolytes andamanensis* Kozhantshikov, 1916 (CEMT), Manaus, Amazonas, Brazil, dorsal habitus. **B**. *O. rondoniae* (Stebnicka, 2002) (CEMT), Manaus, Amazonas, Brazil, dorsal habitus. **C–E**. *Passaliolla aspericeps* (Harold, 1876) (CEMT), Viçosa, Minas Gerais, Brazil. **C**. Dorsal habitus. **D**. Head, frontal view (arrows indicate elevated frontoclypeal suture). **E**. Abdomen, ventral view. **F**. *P. corticalis* (Bates, 1887) (CEMT), Venda Nova do Imigrante, Espírito Santo, Brazil, dorsal habitus. Scale bars: A–B = 1 mm; C–F = 0.5 mm.

Phalangochaeta bolivari – Chalumeau & Howden 1984: 87.
Phalangochaeta transversaria – Stebnicka 1998: 200.
Auperia transversarius – Stebnicka 2002: 760.
Odontolytes trasnversarius – Krell *et al*. 2011: 175.

Diagnosis

Length 4.8–5.2 mm. Body piceous. Head densely and coarse punctate; clypeus sinuate, with glossy band just before anterior margin. Pronotum everywhere densely and coarsely punctate; punctures larger and closer near lateral margins; lateral margins not widely explanate. Elytra with deep striae; interstriae flat. Proventral process wide and scabrous. Mesoventrite with large callosity. Ventral surface of meso- and metatarsi not densely setaceous.

Material examined

BRAZIL – **Acre** • 1 spec.; Assis; 10°35′44″ S, 69°57′11″ W; elev. 1.70 m; 21 Sep. 2016; Ortiz and Borges leg.; light trap (CDC); CEMT. – **Distrito Federal** • 1 spec.; Planaltina, Embrapa Cerrados; 15°35′54″ S, 47°42′51″ W; 2 Dec. 2005; C. Oliveira leg.; light; CEMT • 1 spec.; same data as for preceding; 15°36′46″ S, 47°44′16″ W; 2 Dec. 2005; C. Oliveira leg.; light; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, P.E. Cristalino; 9°32′45″ S, 55°54′57″ W; 11–15 Nov. 2019; R.A. Azevedo leg.; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 9°49′17″ S, 58°16′09″ W; 10 Dec. 2009; F.Z. Vaz-de-Mello leg.; flor. prim. 250, Inter. Vôo; CEMT • 2 specs; same data as for preceding; 9°49′08″ S, 58°15′40″ W; 19–24 Oct. 2012; F.Z. Vaz-de-Mello leg.; PPBioP1; FIT; CEMT • 1 spec.; same data as for preceding; 9°49′17″ S, 58°15′32″ W; 1–3 Nov. 2017; F.Z. Vaz-de-Mello leg.; FIT; CEMT • 1 spec.; Novo Mundo, P.E. Cristalino; 9°28′16″ S, 55°48′47″ W; Nov. 2012; V. Magalhães leg.; P10, pitfall; CEMT. – **Minas Gerais** • 1 spec.; Coração de Jesus, Lapa da Maria Cobra; 16°45′08″ S, 44°23′43″ W; 29 Jan. 2015; L.M. Rabelo leg.; CEMT • 1 spec.; Lavras, Campus da UFLA; Nov–Dec. 2001; F.Z. Vaz-de-Mello leg.; light; CEMT • 1 spec.; Lavras, Prox. Poço Bonito; Dec. 2001; Vaz-de-Mello leg.; CEMT. – **Pará** • 1 spec.; Belterra, Flona-Tapajós; 3°01′06″ S, 55°00′17″ W; 21 Mar. 2019; F. França leg.; primary forest; CEMT • 1 spec.; Jacarecanga; 9°14′04″ S, 56°46′08″ W; Dec. 2015; M.A.L. Bragança leg.; SQD3, pitfall; CEMT • 1 spec.; Novo Progresso, Faz Florentino; 7°08′ S, 55°25′ W; elev. 230 m; Oct.–Nov. 2010; D. Krinski leg.; Amazon forest; FIT; CEMT • 1 spec.; Redenção, Pinkaiti-Aik; 7°46′ S, 51°58′ W; 23 May 1999; P.Y. Scheffler leg.; CEMT. – **Rondônia** • 1 spec.; 62 km SW of Ariquemes, nr Fazenda Rancho Grande; 8–20 Nov. 1994; J. Eger and C. O'Brien leg.; black light; CEMT • 2 specs; Porto Velho, Rio das Garças; 8°49′48″ S, 63°46′45″ W; 4 May 2017; D.C. Santos and K.K.G. Silva leg.; FIT; CEMT.

ECUADOR – **Napo** • 1 spec.; Yasuni Res.; 0°40′ S, 76°24′ W; Jul. 1999; A. Tischechkin leg.; Mid Rio Tiputini; CEMT.

PERU – **Loreto** • 1 spec.; Allpahuayo ca 30 km S of Iquitos; 26 Mar. 1998; S. Golovatch leg.; terra firme primary tropical rainforest; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of females and longer disc of pygidium.

Collecting information

Specimens can be collected with light and flight intercept traps. Specimens were collected at light in *Pinus caribbea* subsp. *hondurensis* (Sénécl.) Silba stands and tropical rainforests (Stebnicka 2009).

Genus ***Paraplesiataenius*** Chalumeau, 1992

Diagnosis

Length 4.2–5.5 mm. Body oval, broad, dorsally setaceous, reddish brown to piceous. Head broad, punctate; clypeus sinuate medially, margin thickened; gena obtuse and setaceous. Pronotum with marginal line; lateral margins fringed with setae. Elytra with small humeral teeth, setaceous. Mesoventrite with mesometasternal carina. Metatibiae with lateral apical spine reduced, inconspicuous among apical fringe of setae or absent.

Remarks

Paraplesiataenius has three recognized species, *P. catarinaensis*, *P. genieri* and *P. tremolerasi* (Schmidt, 1911), currently only reported from Argentina and Brazil (Stebnicka 2003c, 2009). A key for all species can be found in Stebnicka (2003c).

Key to species of *Paraplesiataenius* from Brazil (Portuguese version in Supp. file 1)

1. Pronotum setaceous, punctate with coarse punctures .....***P. genieri*** Stebnicka, 2003 (Fig. 20B–C)
– Pronotal surface glabrous, punctate with fine and coarse punctures ....***P. catarinaensis*** Stebnicka, 2003 (Fig. 20A)

Paraplesiataenius catarinaensis Stebnicka, 2003
Figs 20A, 51A

Paraplesiataenius catarinaensis Stebnicka, 2003c: 448.

Diagnosis

Length 4.2–5.5 mm. Body piceous some specimens with light elytra. Head punctate with fine punctures only. Pronotum with fine, dense punctures similar to those of head; larger coarser punctures mixed with fine ones; coarser punctures scarce on disc but more abundant near lateral and posterior margins; lateral and posterior marginal furrow preset; lateral margin crenulate. Elytra glabrous dorsally; interstriae with small setae near posterior margin; lateral margin fringed with setae.

Material examined

BRAZIL – **Paraná** • 3 specs; Piraquara, Manasiais da Serra; elev. 1100 m; 22 Mar. 2012; Grossi and Leivas leg.; nest of *Acromyrmex*; CEMT. – **Santa Catarina** • 2 specs; Nova Teutônia; 22 Nov. 1952; F. Plaumann leg.; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite parallel-sided and shorter than that of females.

Collecting information

Specimens are attracted to light and were found in detritus piles of *Acromyrmex* Mayr, 1865 ants.

Paraplesiataenius genieri Stebnicka, 2003
Figs 20B–C, 51A

Paraplesiataenius genieri Stebnicka, 2003c: 449.

Diagnosis

Length 4.5–5.1 mm. Body reddish brown, opaque, shagreened. Head with clypeus more finely punctate than frons. Pronotum swollen laterally; coarsely punctate; punctures close to anterior margin, larger

posteriorly and near lateral margins; surface finely setiferous. Elytra with interstriae with a row of large setae along outer margin, interstriae glabrous medially.

Material examined

BRAZIL – **Paraná** • 3 specs; Piraquara, Manasiais da Serra; 24 Apr. 2012; P. Grossi leg.; *Acromyrmex subterraneus* nest; CEMT • 1 spec.; same data as for preceding; elev. 1100 m; 22 Mar. 2012; Grossi and Leivas leg.; CEMT.

Sexual dimorphism

Males with pronotal sides arcuate; posterior angles are truncate; posterior margin lobed.

Collecting information

Specimens were extracted from *Acromyrmex subterraneus* (Forel, 1893) nest.

Genus ***Parataenius*** Balthasar, 1961

Diagnosis

Length 3.8–5.9 mm. Body strongly convex in lateral and frontal views, glossy, reddish brown. Head with strongly developed transverse wrinkles; clypeus emarginate, weakly gibbous. Pronotum convex, robust, with only moderate punctures or with moderate punctures intermixed with coarse, scarce punctures restricted to posterior and lateral margins; lateral margins crenate, fringed with large and evident setae. Elytra convex. Ventral surface glossy, variably setaceous. Abdominal ventrites weakly strigate, except the sixth one which is more strongly strigate; ventrites punctate with fine punctures and larger, not coarse, setaceous punctures. First metatarsomere discretely curved.

Remarks

Parataenius is comprised of five species recorded from Southeastern United States, several South American countries and was introduced in Africa, Europe and Oceania (Stebnicka 2009; Stebnicka & Skelley 2009). A key to all species was written by Stebnicka & Skelley (2009).

Key to species of *Parataenius* from Brazil (Portuguese version in Supp. file 1)

1. Pronotum with punctures of two sizes; coarse punctures few, restricted to posterior and lateral margins .....***P. simulator*** (Harold, 1868) (Fig. 12D–E)
– Pronotum with only moderate, similar in size punctures; punctures spread across entire surface . ..... ***P. derbesis*** (Solier, 1851) (Fig. 12F)

Parataenius derbesis (Solier, 1851)
Figs 12F, 51B

Aphodius derbesis Solier, 1851: 72.
Euparia rubripes Boheman, 1858: 51.
Ataenius laborator Harold, 1869b: 102.
Euparia cribricollis Burmeister, 1877: 411.
Parataenius mirabilis Balthasar, 1961: 121.

Parataenius derbesis – Dellacasa 1987: 120.

Diagnosis

Length 4.5–5.0 mm. Body suboval, dorsally glabrous. Head with transverse wrinkles; clypeus impunctate, emarginate. Pronotum convex, with moderate punctures distributed across its surface; lateral

margin crenulate, fringed with setae. Abdominal ventrites weakly strigate, except the sixth one; ventrites with punctures of two sizes, larger punctures setiferous.

Material examined

ARGENTINA – **Mendoza** • 1 spec.; Reserva La Payunia, Valle del Saino; 36°07′01″ S, 68°48′01″ W; elev. 1706 m; 6 Jan. 2003; F.C. Ocampo and A.B.T. Smith leg.; guanaco dung; CEMT.

Sexual dimorphism

Without evident dimorphism.

Collecting information

Specimens were collected with light traps and are attracted to cow and guanaco *Lama guanicoe* (Müller, 1776) feces (Stebnicka & Skelley 2007).

Parataenius simulator (Harold, 1868)
Figs 12D–E, 51B

Ataenius simulator Harold, 1868: 85.
Psammodius schwarzi Linell, 1896: 721.
Parataenius granuliceps Petrovitz, 1971: 102.
Ataenius (*Brancotaenius*) *lusitanicus* Paulian, 1979: 66.

Parataenius simulator – Dellacasa 1987: 281.

Diagnosis

Length 3.8–5.9 mm. Body robust, elongate, glabrous dorsally. Head with strong transverse wrinkles, punctures present at frons; clypeus emarginate, impunctate. Pronotum with punctures of two sizes; larger punctures scarce, restricted to posterior and lateral margins; lateral margins fringed with setae. Elytra with interstriae punctate; punctures fine and widely spaced. Abdominal ventrites with large punctures to the sides.

Material examined

ARGENTINA – **Corrientes** • 1 spec.; Corrientes, Barrio Víctor Colas; 27°28′50″ S, 58°47′18″ W; elev. 64 m; 21 Oct. 2012; M.I. Polesel leg.; light; CEMT. – **Mendoza** • 535 specs; Desaguadero; 5 Feb. 2017; G. Arriágada leg.; CEMT. – **San Luis** • 2 specs; Desaguadero; 11 Jan. 2005; C. Fortino leg.; light trap; CEMT. – **San Luis** • 124 specs; Belgrano, Fundo El Molle; 33°02′23″ S, 66°30′48″ W; elev. 622 m; 7 Feb. 2017; G. Arriágada leg.; CEMT.

BRAZIL – **Rio Grande do Sul** • 1 spec.; Cidreira; 31 May 2003; J. Alvenir leg.; dunas em restinga [dunes in restinga vegetation]; pitfall; CEMT • 2 specs; Santa Cruz do Sul, Cerro Alegre; 28°48′11″ S, 52°19′51″ W; 11 Feb. 2012; R. Bohn leg.; annual crop, bovine feces; CEMT.

UNITED STATES OF AMERICA – **Alabama** • 1 spec.; Barbour Co., Blue Springs St Pk.; 11 Mar. 1985; S.C. Harris leg.; CEMT • 1 spec.; Bibb Co., Little Cahaba Riv.; 12 Jul. 1981; S.C. Harris leg.; CEMT. – **Mississippi** • 1 spec.; Perry Co., Camp Shelby; 18 Mar. 2000; T.C. Lockley leg.; T-44 site 1; CEMT.

Sexual dimorphism

Males with penultimate abdominal ventrite thinner than that of female.

Collecting information

Adult are commonly attracted to light and larvae have been collected in bovine faecal masses (Verdú & Galante 1999).

Genus ***Passaliolla*** Balthasar, 1945

Diagnosis

Length 2.8–4.0 mm. Body elongate, parallel-sided, dorso-ventrally flattened, reddish brown. Head variably sculptured, in some species is only punctured, while in others the clypeus may be tuberculated; clypeus sinuate; gena prominent, obtuse; frontoclypeal suture present or not. Pronotum quadrate, with fine and coarse punctures. Elytra elongate; striae deep with coarse and round punctures; interstriae variably punctured. Metatibiae with 2–3 additional apical spines on apical lateral margin. Abdominal ventrites coalescent, sutures visible only laterally, except second ventrite; ventrites somewhat depressed laterally; sixth ventrite foveate laterally.

Remarks

Passaliolla has five recognized species and it is recorded from several countries in Central and South America. For more information about the diversity of this genus and keys for all its species see Stebnicka (2000).

Key to species of *Passaliolla* from Brazil (Portuguese version in Supp. file 1)

1. Head tuberculate 2
– Head not tuberculate ..... ***P. eugastrica*** (Harold, 1876) (Fig. 24B)

2. Tubercles restricted to anterior half of clypeus ..... ***P. cancellata*** (Bates, 1887) (Fig. 24A)
– Tubercles distributed across clypeal surface, may reach frontoclypeal suture (Fig. 23D) 3

3. Frontoclypeal suture marked by fine, impunctate and glossy carina (Fig. 23D) .... ***P. aspericeps*** (Harold, 1876) (Fig. 23C–E)
– Frontoclypeal suture indistinct ..... ***P. corticalis*** (Bates, 1887) (Fig. 23F)

Passaliolla aspericeps (Harold, 1876)
Figs 23C–E, 52A

Saprosites aspericeps Harold, 1876: 58.
Passaliolla brasiliana Balthasar, 1965: 443.

Passaliolla aspericeps – Stebnicka 2000: 236.

Diagnosis

Length 3.8–4.0 mm. Head tuberculate, tubercle extending to frontoclypeal suture; frontoclypeal suture present as a fine impunctate carina. Pronotum with moderate and coarser punctures; coarse punctures greatly separated, moderate punctures densely distributed.

Material examined

BRAZIL – **Minas Gerais** • 1 spec.; Viçosa, Mata do Paraíso; 2 Dec. 2014; C. Lopes *et al.* leg.; CEMT • 1 spec.; Viçosa; 20°48′11″ S, 42°51′25″ W; elev. 725 m; 1 May 2013; J. Chaul and R. Jesus leg.; epigaeic Winkler extractor; CEMT. – **Rio de Janeiro** • 1 spec.; Parque Nacional do Itatiaia, Casa do pesquisador; elev. 750 m; 22–24 Oct. 2010; W. Beiroz and M. Cupello leg.; flight intercept trap; CEMT. – **São Paulo**

• 1 spec.; Bertioga, Parque das Neblinas; 23°44′ S, 46°10′ W; elev. 790 m; Feb. 2014; R.V. Nunes leg.; human feces; CEMT.

Sexual dimorphism

Males and females are indistinguishable from each other.

Collecting information

Specimens were found at altitudes ranging from 725 to 790 metres. Specimens were collected with flight traps and in forest litter, this species was also found in *Tapirus* and human dung.

Remarks

Information about the distribution of this species remains uncertain. In Brazil, this species was only reported from "Amazonas" (Stebnicka 2002). However, specimens from southeastern Brazil meeting the diagnostic character provided by Stebnicka (2002, 2009) were found in the CEMT. Regardless, further studies must be conducted to more accurately ascertain the distribution of this species.

Passaliolla cancellata (Bates, 1887)
Figs 24A, 52A

Saprosites cancellatus Bates, 1887: 92.
Passaliolla depressa Balthasar, 1945: 105.

Passaliolla cancellata – Stebnicka 2000: 237.

Diagnosis

Length 2.8–3.0 mm. Head punctate, anteriorly tuberculate, tubercles not extending beyond anterior gibbosity; frontoclypeal suture indistinct. Pronotum with punctures of two sizes, coarse and moderate; coarse and moderate punctures densely distributed across pronotum. Elytra with striae deep, coarsely and closely punctate.

Material examined

BRAZIL – **Amazonas** • 1 spec.; Manaus Mu Est.AM. 01.hm 31 CEPLAc [unknown meaning]; 9 May 1976; W. Irioma and S. Serrano leg.; CEMT • 4 specs; Coari, Rio Urucu; 4°55′53″ S, 65°18′13″ W; 25 Feb.–10 Mar. 1995; P.F. Bührnheim *et al.* leg.; RUC-36; CEMT • 1 spec.; Tefé, Locação São Mateus; 4°43′24″ S, 65°05′06″ W; 7–16 Sep. 1994; P.F. Bührnheim *et al.* leg.; CEMT. – **Mato Grosso** • 31 specs; Cotiguaçu, Fazenda São Nicolau; 9°49′22″ S, 58°15′56″ W; 1 Nov. 2017; Vaz-de-Mello *et al.* leg.; manually; CEMT • 3 specs; Cotiguaçu, Fazenda São Nicolau, Prainha; 9°51′53″ S, 58°13′13″ W; 2 Nov. 2017; Vaz-de-Mello *et al.* leg.; manually; CEMT • 3 specs; Cotiguaçu, Fazenda São Nicolau; 9°52′31″ S, 58°16′21″ W; 2 Nov. 2017; Vaz-de-Mello *et al.* leg.; CEMT. – **Rondônia** • 1 spec.; Guaporé, 12°16′05″ S, 60°42′30″ W; 23 Apr. 2006; J.A. Rafael and F.F. Xavier leg.; CEMT.

UNKNOWN COUNTRY • [Unreadable]; 18 Apr. 1976; E. Rujino leg.; CEMT.

Sexual dimorphism

Males and females are indistinguishable from each other.

Collecting information

Specimens were collected inside rotten logs (Vaz-de-Mello pers. com.) and forest litter (Stebnicka 2009).

Passaliolla corticalis (Bates, 1887)
Figs 23F, 52A

Saprosites corticalis Bates, 1887: 93.
Passaliolla imitatrix Balthasar, 1965: 444.

Passaliolla corticalis – Stebnicka 2000: 237.

Diagnosis

Length 3.1–3.9 mm. Head with clypeus entirely granulate; frontoclypeal suture indistinct. Pronotum with punctures fine and moderate; coarse punctures spaced at least one diameter; pronotum with small foveae laterally.

Material examined

BRAZIL – **Espírito Santo** • 5 specs; Venda Nova do Imigrante; Jan. 2000; Lopes-Andrade and Naviaux leg.; CEMT. – **Mato Grosso** • 8 specs; Chapada dos Guimarães, Vale Jamacá; 15°27′53″ S, 55°42′55″ W; elev. 760 m; 7 Nov. 2014; S. Boucher and R.V. Nunes leg.; CEMT.

COLOMBIA – **Vaupés** • 1 spec.; R.N. Mosiro-Itajura (Caparú), Centro Ambiental; 1°04′ S, 69°31′ W; elev. 60 m; 20 Jan.–1 Feb. 2003; M. Shakoy and D. Arias leg.; FIT; CEMT.

FRENCH GUIANA • 1 spec.; St Laurent de Maroni, Bélvédère de Saül; 3°37′22″ N, 53°12′57″ W; elev. 326 m; 14 Mar. 2011; SEAG leg.; CEMT.

Sexual dimorphism

Males and females are indistinguishable from each other.

Collecting information

Specimens were collected in forest litter, inside logs and some have been captured with flight intercept traps. This species was found at altitudes ranging from 725 to 1000 metres.

Remarks

Passaliolla corticalis is another species with uncertain distribution. Originally described from “Ega” now known as Tefé (IBGE 1990a), several specimens matching the diagnosis provided by Stebnicka (2000) have been found in forest fragments in the states of Mato Grosso and Espírito Santo.

Passaliolla eugastrica (Harold, 1876)
Fig. 24B, 52A

Saprosites eugastricus Harold, 1869: 101.

Passaliolla eugastrica – Stebnicka 2000: 236.

Diagnosis

Length 2.8–3.2 mm. Head without granules; clypeus subrugosely punctate medially; frontoclypeal suture indistinct. Pronotum with punctures of two sizes, fine and coarse, everywhere densely distributed. Elytra with striae deep and coarsely punctured.

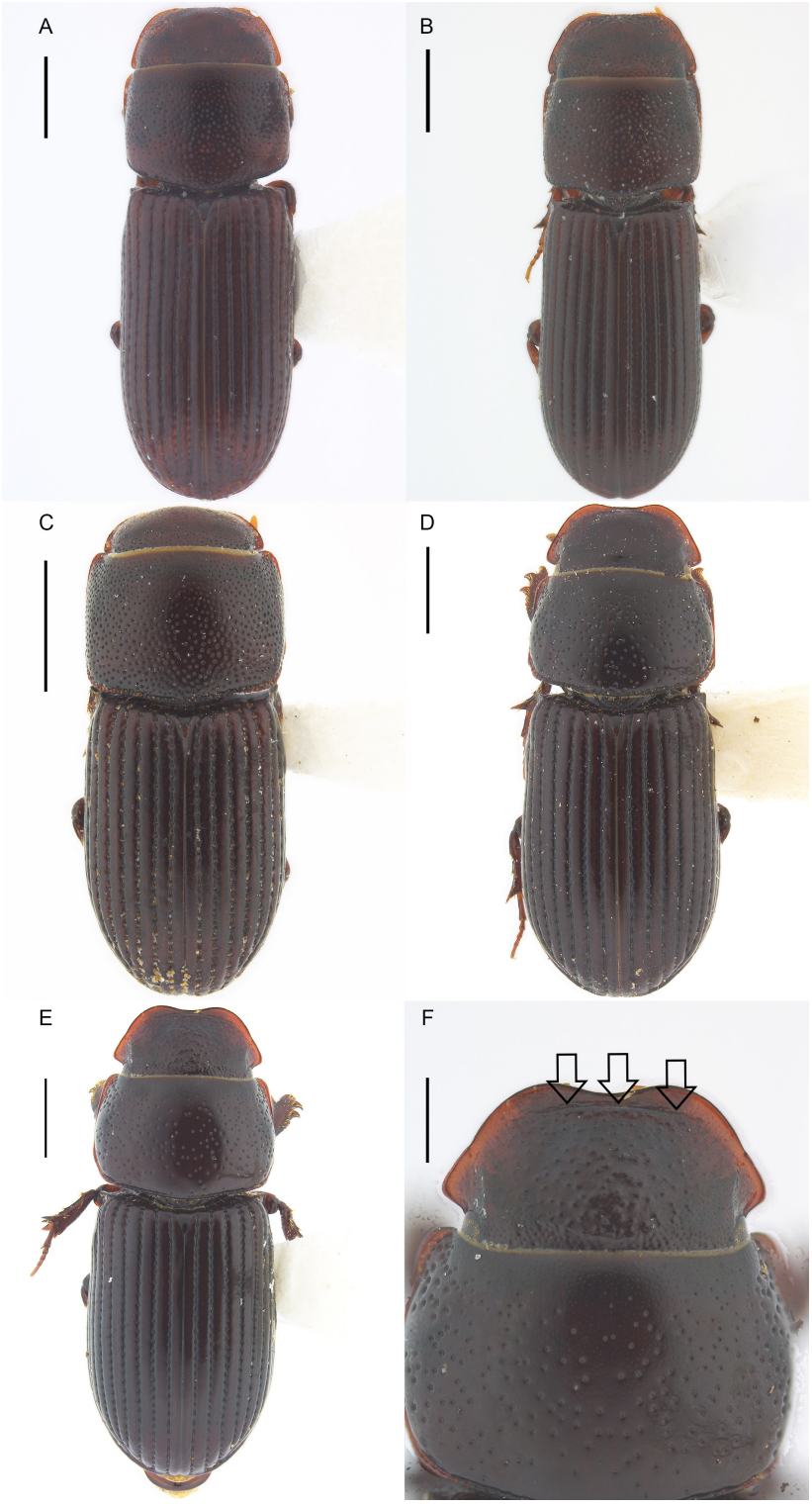

Fig. 24. A. *Passaliolla cancellata* (Bates, 1887) (CEMT), Cotriguaçu, Mato Grosso, Brazil, dorsal habitus **B**. *P. eugastrica* (Harold, 1876) (CEMT), Venda Nova do Imigrante, Espírito Santo, dorsal habitus. **C**. *Saprosites puncticollis* Harold, 1867 (CEMT), Domingos, Espírito Santo, Brazil, dorsal habitus. **D–F**. *S. dentipes* Harold, 1867 (CEMT), Nova Friburgo, Rio de Janeiro, Brazil. **D**. ♂, dorsal habitus. **E**. ♀, dorsal habitus. **F**. ♀, head (arrows indicate clypeal carina). Scale bars: A–B, F = 0.5 mm; C–E = 1 mm.

Material examined

BRAZIL – **Espírito Santo** • 1 spec.; Venda Nova do Imigrante; Feb. 1998; Falgueto and Vaz-de-Mello leg.; CEMT • 10 specs; Venda Nova do Imigrante, Vila Santa Cruz; Jan. 2011; F.Z. Vaz-de-Mello leg.; CEMT. – **Minas Gerais** • 1 spec.; Viçosa; Dec. 1995; F.Z. Vaz-de-Mello leg.; CEMT.

ECUADOR – **Napo** • 1 spec.; Res. Étnica Waorani, 1 km S of Onlone Gare Camp, Trans. Ent.; 0°39′10″ S, 76°26′00″ W; elev. 220 m; 8 Feb. 1996; T.L Erwin. *et al.* leg.; fogging with insecticides; CEMT. – **Pastaza** • 1 spec.; Arajuno, Comuna Oglán, Río Oglán; elev. 580 m; 25 Jul. 2009; P. Araujo leg.; fumig; CEMT.

Sexual dimorphism

Males and females are indistinguishable from each other.

Collecting information

Specimens were found inside rotting logs.

Genus ***Pseudataenius*** Brown, 1927

Diagnosis

Length 4.2–4.8 mm. Body elongate, cylindrical, dorsally glabrous, reddish testaceous. Head punctate; clypeus sinuate, margin not thickened medially. Pronotum not fringed with setae; laterally and posteriorly with marginal line; posterior angles sinuate. Elytra with fine humeral teeth. Tarsus of meso- and metatibiae slender and as long as tibiae. Mesometaventral carina absent. Abdominal ventrites minutely strigate.

Pseudataenius gracilitarsis (Petrovitz, 1973)
Figs 13, 52B

Ataenioides gracilitarsis Petrovitz, 1973: 150.

Pseudataenius gracilitarsis – Stebnicka & Skelley 2009: 12.

Diagnosis

Length 4.2–4.8 mm. Head with clypeus sinuate; frons coarsely punctate. Pronotum not fringed by setae; margin entirely with marginal line; posterior angles sinuate. Elytra with interstriae glossy, punctate.

Material examined

BRAZIL – **Distrito Federal** • 1 spec.; Brasília, RECOR-IBGE; Nov. 1999; M. Milhomem leg.; CEMT • 6 specs; same data as for preceding; I. Diniz leg.; CEMT • 2 specs; Planaltina, Embrapa CPAC; 15°36′24″ S, 47°42′45″ W; elev. 1025 m; 18 Nov. 2016; C.M. Oliveira leg.; flight intercept trap; CEMT. – **Goiás** • 1 spec.; Joanópolis, Chac. São José; 16°16′43″ S, 48°50′57″ W; 26 Jan. 2019; E. Carvalho leg.; FIT; CEMT. – **Minas Gerais** • 1 spec.; Viçosa; 10 Nov. 1999; F.Z. Vaz-de-Mello leg.; FIT; CEMT.

Sexual dimorphism

Males with head densely punctate; clypeus medially gibbous; protibia with lateral teeth of unequal sizes; apical spur inwardly, strongly curved. Tarsi longer and slenderer than that of female. Females with clypeus not particularly gibbous, wrinkled; frons strongly punctate. Protibiae with lateral teeth similar in size; apical spur lanceolate.

Collecting information

Specimens were collected at altitudes ranging from 700 to 1025 metres with flight intercept traps and with black light traps.

Genus ***Saprosites*** Redtenbacher, 1858

Diagnosis

Length 3.0–6.0 mm. Body cylindrical, somewhat flattened, dark reddish brown. Head variably punctured, may present tubercles depending on the species observed; clypeus emarginate; frontoclypeal suture visible or not, if visible, carinate. Pronotum variably punctured, never fringed by setae. Elytra with humeral denticle fine. Tibiae with two poorly developed transversal carinae. Metatibiae with 2–3 additional apical spines on its outer margin. Abdominal ventrites sinuate, strigate anteriorly.

Remarks

Saprosites currently has 136 recognized species distributed across the Afrotropical, Australian, Neotropical, Oriental and Palearctic regions (Stebnicka 2001a; Schoolmeesters 2023). A key to the 16 Neotropical species was written by Stebnicka (2001a).

Key to species of *Saprosites* from Brazil (adapted from Stebnicka 2001a) (Portuguese version in Supp. file 1)

1. Pronotum with posterior margin marked by row of coarse punctures (Figs 24C–D, 25A) 2
– Pronotum with posterior margin without row of coarse punctures 4

2. Clypeus with transverse carina behind medial emargination (Fig. 24F) 3
– Clypeus without transverse carina behind medial emargination ..... ***S. puncticollis*** Harold, 1867 (Fig. 24C)

3. Posterior angles of pronotum serrate. Lateral striae of elytra as wide or wider as interstriae ..... ***S. sulcatus*** Harold, 1869 (Fig. 25A)
– Posterior angles of pronotum smooth. Lateral striae thinner than interstriae ..... ***S. dentipes*** Harold, 1867 (Fig. 24D–F)

4. Disc of pronotum with moderate and coarse punctures, the latter densely distributed and close or similar to the moderate punctures. Lateral striae of elytra as coarsely punctured as discal striae (Fig. 25D) ..... ***S. breviusculus*** Harold, 1867 (Fig. 25B–D)
– Disc of pronotum with fine and coarse punctures, the latter much more scattered and distant when compared with the fine punctures; coarse punctures closer laterally. Elytra with lateral striae more coarsely punctured than the discal striae (Fig. 25F) ..... ***S. parallelus*** Harold, 1867 (Fig. 25E–F)

Saprosites breviusculus Harold, 1867
Figs 25B–D, 53A

Saprosites breviusculus Harold, 1867a: 81.
Saprosites ohausi Schmidt, 1911b: 45.

Diagnosis

Length 3.0–4.0 mm. Head punctate, punctures minute near anterior margin of clypeus, fine near and on frons; clypeus sinuate. Pronotum quadrate; densely punctate with fine and coarse punctures; posterior angles not serrate; posterior margin without marginal line. Elytra with lateral interstriae less coarsely punctate than discal interstriae. Abdominal ventrites coarsely and densely punctate.

Material examined

BRAZIL – **Espírito Santo** • 1 spec.; Venda Nova do Imigrante; Feb. 1998; Falqueto and Vaz-de-Mello leg.; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, P.E.Cristalino; 9°40′59″ S, 55°54′58″ W; 20–24 Nov. 2019; R.A. Azevedo leg.; FIT; CEMT • 1 spec.; Chapada dos Guimarães, Vale Jamacá; 15°27′53″ S, 55°42′55″ W; elev. 760 m; 7 Nov. 2014; S. Boucher and R.V. Nunes leg.; CEMT • 1 spec.; Cotiguaçu, Fazenda São Nicolau, PPBioP1; 9°49′08″ S, 58°15′40″ W; 19–24 Oct. 2012; F.Z. Vaz-de-Mello leg.; PPBioP1, FIT; CEMT. – **Minas Gerais** • 1 spec.; Viçosa; Nov. 1999; F.Z. Vaz-de-Mello and Serrano leg.; CEMT • 2 specs; same data as for preceding; Nov. 2000; CEMT • 1 spec.; Mata do Paraíso; 2 Dec. 2014; C. Lopes-Andrade and S. Aloquito leg.; CEMT. – **Pará** • 1 spec.; Belém, IPEAN; May 1985; N. Degallier leg.; CEMT. – **Rio de Janeiro** • 1 spec.; Angra dos Reis, Estação do Rio Jussaral; Oct. 1935; L. Trave and E.T. Lopes leg.; CEMT • 1 spec.; Macaé, Rio São Pedro; 22°13′45″ S, 42°02′39″ W; elev. 111 m; 22 Mar. 2009; J. Nessimian *et al.* leg.; light; CEMT • 2 specs; Nova Friburgo; Oct. 1996; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Nova Friburgo, Cascata; 22°21′55″ S, 42°13′03″ W; elev. 319 m; 8 Mar. 2009; J. Nessimian leg.; af 2° ord [second-order tributary] of Rio Macaé; UV light; CEMT • 1 spec.; Pedro do Rio; 4 Dec. 1966; J.R. Celso leg.; CEMT. – **São Paulo** • 1 spec.; Ribeirão Preto, EERP-MST; 21°13′33″ S, 47°51′21″ W; 22 May 2009; G. Biffi and E.A. Nascimento leg.; CEMT.

ECUADOR – **Pastaza** • 1 spec.; Arajuno, B.P. Oglán; elev. 540 m; 9 Oct. 2009; F. Gallo and W. Chamorro leg.; collected manually on trunk; CEMT • 1 spec.; Arajuno, Río Oglán; elev. 598 m; 25 Jul. 2009; P. Araujo leg.; fumig [fumigation]; CEMT.

FRENCH GUIANA • 1 spec.; St Laurent de Maroni, Bélvédère de Saül; 3°37′22″ N, 53°12′57″ W; elev. 326 m; 14 Mar. 2011; SEAG leg.; CEMT.

Sexual dimorphism

Males with pronotum wider and less densely punctate than that of females; fifth abdominal ventrites shorter, apical lip of pygidium longer than that of females.

Collecting information

This species has been collected inside rotten logs, litter, sticks with fungus, flight intercept and UV light traps next to streams (Stebnicka 2009). This species was found at altitudes ranging from 111 to 760 metres.

Saprosites dentipes Harold, 1867
Figs 24D–F, 53B

Saprosites dentipes Harold, 1867a: 80.
Saprosites granulifrons Balthasar, 1938: 59.
Saprosites ataenoides Balthasar, 1945: 110.

Diagnosis

Length 5.0–6.0 mm. Head with clypeus transversely carinate behind medial emargination; frons coarsely punctate. Pronotum with minute and coarse punctures; minute punctures everywhere distributed; coarse punctures closer and wider near anterior angles; posterior angles smooth. Elytra with lateral striae thinner than lateral interstriae.

Material examined

BRAZIL – **Espírito Santo** • 1 ♂; Venda Nova do Imigrante; Dec. 2000; F.Z. Vaz-de-Mello leg.; CEMT. – **Minas Gerais** • 1 ♀; Viçosa; 2 Oct. 1982; P.S.F. Fiuza leg.; CEMT • 1 ♀; same data as for preceding; Nov. 1999; Vaz-de-Mello and Serrano leg.; CEMT • 1 ♂; same data as for preceding; Nov. 2000;

F.Z. Vaz-de-Mello leg.; CEMT. – **Rio de Janeiro** • 5 ♀♀; Macaré de Cima; Oct. 2002; P. Grossi and E. Grossi leg.; CEMT • 1 ♀; Nova Friburgo; elev. 1000 m; Nov. 2000; P. Grossi leg.; CEMT • 1 ♂; Nova Friburgo; Nov. 1996; F.Z. Vaz-de-Mello leg.; CEMT • 1 ♀; Pedro do Rio; 17 Sep. 1961; J.R. Celso leg.; CEMT • 1 ♀; Petrópolis, Alto da Serra; 10 Sep. 1961; H. Schubart leg.; CEMT. – **São Paulo** • 4 ♀♀; 24 Oct. 1914; Saude leg.; CEMT • 1 ♂; São Paulo; 10 Oct. 1920; Saude leg.; CEMT • 2 ♂; same data as for preceding; 4 Apr. 1920; CEMT.

Sexual dimorphism

Females with clypeus granulate, transverse carina more developed and frontoclypeal suture elevated; males with clypeus not tuberculate, instead, finely punctate; transverse carina less acutely elevated; frontoclypeal suture indistinct; frons more coarsely punctate than clypeus.

Collecting information

Specimens were collected at altitudes up to 1000 m with light traps.

Saprosites parallelus Harold, 1867
Fig. 25E–F

Saprosites parallelus Harold, 1867a: 81.

Diagnosis

Length 4.2–4.8 mm. Head punctate; punctures near clypeal margin minute, punctures at and near frons slightly larger. Pronotum with punctures fine and coarse, the latter more scattered, closer near lateral margins. Elytra with discal interstriae with punctures as coarse as the lateral ones. Abdominal ventrites with minute scattered punctures.

Material examined

COLOMBIA – **Risaralda** • 1 spec.; Ucumari La Suiza; elev. 2800 m; Mar. 2000; J. Noriega leg.; CEMT.

ECUADOR – **Pastaza** • 1 spec.; Chuyayacu; elev. 810 m; May 1999; P. Araujo leg.; fumigación dosel [canopy fumagation]; CEMT.

Sexual dimorphism

Males with pronotum broader and less densely punctate than that of females; fifth abdominal ventrite shorter and apical lip longer in males.

Collecting information

Specimens were collected at altitudes ranging from 810 to 3000 metres and can be found inside dead trees (Stebnicka 2009). The specimens analyzed were collected by canopy fogging.

Saprosites puncticollis Harold, 1867
Figs 24C, 53A

Saprosites puncticollis Harold, 1867a: 81.
Saprosites sulcifer Schmidt, 1910: 361.

Diagnosis

Length 3.8–4.0 mm. Head punctate; punctures on frons larger than those on clypeus; clypeus emarginate; frontoclypeal suture faint, present as a fine, glabrous and glossy angulate line. Pronotum everywhere

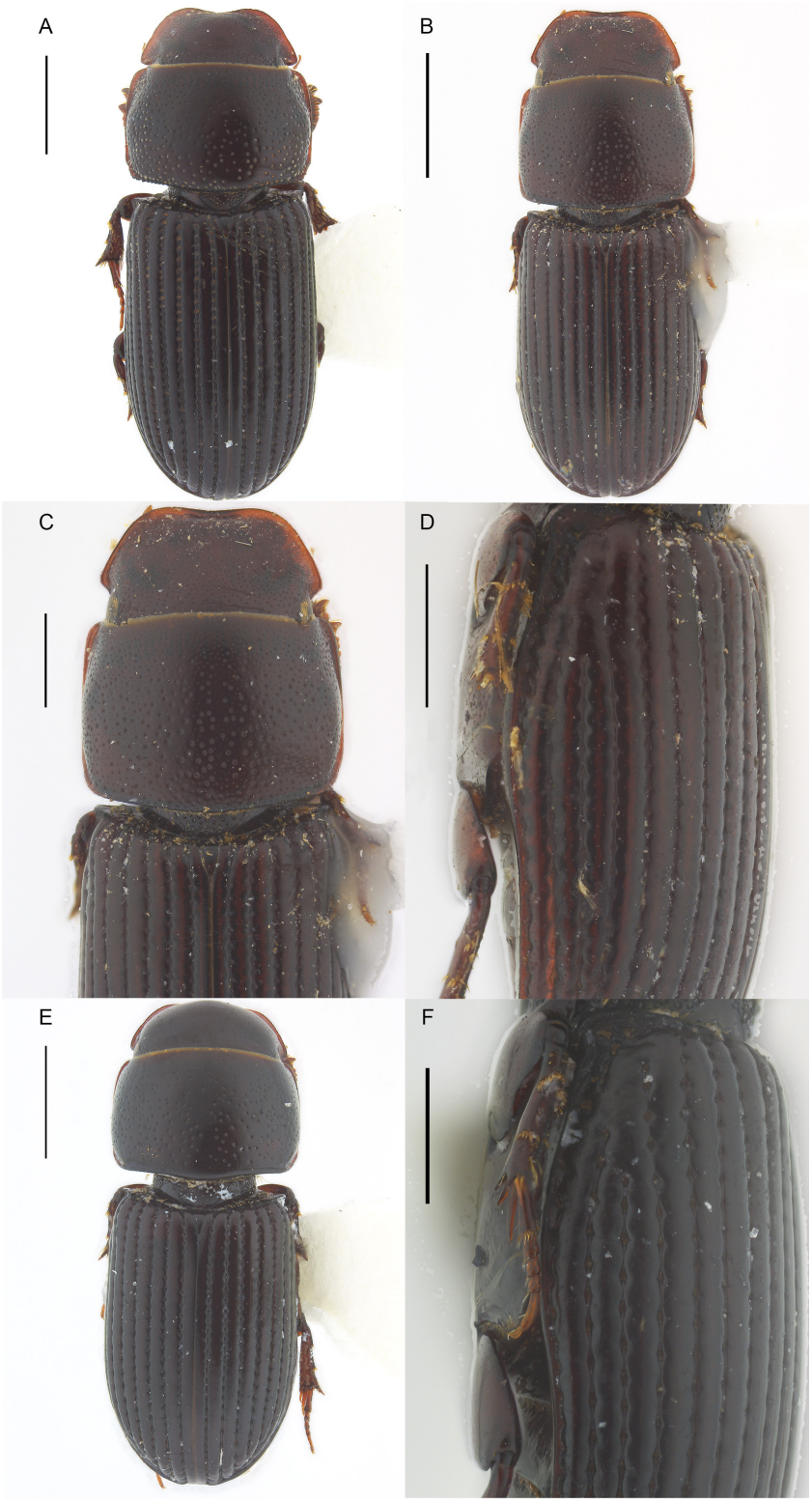

Fig. 25. A. *Saprosites sulcatus* Harold, 1869 (CEMT), Ubajara, Ceará, Brazil, dorsal habitus. **B–D**. *S. breviusculus* Harold, 1867 (CEMT), Venda Nova do Imigrante, Espírito Santo, Brazil. **B**. Dorsal habitus. **C**. Pronotum, dorsal view. **D**. Elytra, lateral view. **E–F**. *S. parallelus* Harold, 1867 (CEMT), Chuyayacu, Pastaza, Ecuador. **E**. Dorsal habitus **F**. Elytra, lateral view. Scale bars: A–B, E = 1 mm; C–D, F = 0.5 mm.

coarsely, densely punctate, punctures closer and coarser laterally; posterior margin with marginal line; margin evidenced by a row of coarse punctures; posterior angles serrate.

Material examined

BRAZIL – **Espírito Santo** • 2 specs; Domingos Martins, Pq. E. Pedra Azul; elev. 1500 m; Jan. 2000; Lopes-Andrade and Vaz-de-Mello leg.; CEMT • 1 spec.; Venda Nova do Imigrante; Nov. 1999; Falquear and Vaz-de-Mello leg.; CEMT • 1 spec.; same data as for preceding; Nov. 1999; Vaz-de-Mello and Serrano leg.; CEMT. – **Minas Gerais** • 2 specs; Lima Duarte, P.E. Ibitipoca; Jun. 2001; F.Z. Vaz-de-Mello leg.; CEMT • 2 specs; Viçosa; 17 Nov. 1999; A. Serrano leg.; CEMT • 1 spec.; same data as for preceding; Nov. 1999; Vaz-de-Mello and Serrano leg.; CEMT. – **Paraná** • 4 specs; Castro Socavão, Cachoeira Roncadura; 24 Jun. 2006; Grossi and Parizotto leg.; CEMT. – **Rio de Janeiro** • 1 spec.; Nova Friburgo, Macaé de Cima; Dec. 1998; Grossi and Vaz-de-Mello leg.; CEMT • 5 specs; same data as for preceding; Jan. 1999; P. Grossi leg.; CEMT • 1 spec.; same data as for preceding; Jan. 2000; E. Grossi and P. Grossi leg.; FIT; CEMT • 1 spec.; Parque Nacional do Itatiaia, Casa do Pesquisador; elev. 750 m; 22–24 Oct. 2010; W. Beiroz and M. Cupello leg.; flight interception trap; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of female; males with weakly strigate ventrites; lip of pygidium longer.

Collecting information

Specimens were found at altitudes up to 1500 m and can be collected with flight intercept traps.

Saprosites sulcatus Harold, 1869
Figs 25A, 53B

Saprosites sulcatus Harold, 1869: 102.
Passalaphodius cartwrighti Martínez, 1953: 82.

Diagnosis

Length 5.0–5.5 mm. Head punctate; clypeus emarginate, finely and densely punctate; frontoclypeal suture impressed; frons with punctures larger and less dense than clypeus. Pronotum with minute and coarse punctures; coarse punctures scattered on disc, closer and larger near lateral margins, especially near anterior angles; posterior margin with marginal line of coarse punctures; posterior angles serrate. Elytra with lateral striae coarsely and closely punctate, as wide or wider than interstriae; strial punctures crenate interstriae.

Material examined

BRAZIL – **Ceará** • 6 specs; Ubajara, PN Ubajara, Trilha da Samambaia; 3°50′22″ S, 40°53′55″ W; elev. 875 m; 16–20 Feb. 2013; Vaz-de-Mello and Grossi leg.; trilha da samambaia [fern trail]; manually; CEMT. – **Distrito Federal** • 1 spec.; Brasília; Nov. 2002; N. Degallier leg.; CEMT. – **Mato Grosso** • 6 specs; Santo Antônido do Leverger, IFMT-São Vicente da Serra; Jun. 2012; G.A.P.C. Neves leg.; CEMT. – **Minas Gerais** • 4 specs; Lavras, Campus da UFLA; Nov.–Dec. 2001; F.Z. Vaz-de-Mello leg.; light; CEMT • 1 spec.; Viçosa; Nov. 1996; Vaz-de-Mello and Hardy leg.; CEMT.

Sexual dimorphism

Males pronotum less densely punctate than that of females; fifth abdominal ventrite shorter than that of females; lip of pygidium longer.

Collecting information

Specimens were collected under wood bark and rotten logs associated with fungi. This species was found at altitudes ranging from 400 to 1280 metres (Stebnicka 2001a).

Genus ***Selviria*** Stebnicka, 1999

Diagnosis

Length 4.8–5.0 mm. Body elongated, glabrous reddish testaceous. Head wide, covered with fine punctures; clypeus emarginate. Pronotum laterally explanate, with punctures of two sizes fine and moderate; fringed by spatulate setae. Elytra with humeral denticle developed; margin of elytra explanate. Meso- and metatibiae slim, somewhat circular in cross section, almost completely glabrous, except for a few sparse setae concentrated in the apical third.

Remarks

Selviria currently has only two known species from Bolivia and Brazil (Stebnicka 2009).

Key to species of *Selviria* from Brazil (Portuguese version in Supp. file 1)

1. Elytral interstriae convex ..... ***S. anneae*** Stebnicka, 2005
– Elytral interstriae flat ..... ***S. matogrossoensis*** Stebnicka, 1999 (Fig. 17A)

Selviria annae Stebnicka, 2005
Fig. 54A

Selviria annae Stebnicka, 2005a: 23–25.

Diagnosis

Length 4.8–5.0 mm. Lateral margins of pronotum and margins of elytra greatly explanate. Head wide; clypeus emarginate. Pronotum with punctures of two sizes; fine and moderate. Elytra with interstriae convex, lacking humeral teeth.

Sexual dimorphism

Males with apical spurs of protibia inwardly hooked.

Collecting information

Specimens were collected at light.

Remarks

There were no specimens available to be examined. The Brazilian record and other information here presented were based on available literature (Stebnicka 2005a, 2009).

Selviria matogrossoensis Stebnicka, 1999
Figs 17B, 54A

Selviria matogrossoensis Stebnicka, 1999a: 288–289.

Diagnosis

Length 4.8–5.0 mm. Head wide with finely punctate; clypeus emarginate, margin upturned. Pronotum laterally explanate; fringed by spatulate setae; posterior angles not distinctly explanate. Elytra with humeral teeth present, interstriae flat; lateral and posterior margins explanate. Meso- and metatibiae

slim, somewhat circular in a cross section, almost completely glabrous, except for a few sparse setae concentrated in apical third.

Type material examined

Paratype

BRAZIL • 1 spec.; "[white paper, printed] Br-Ms- Três Lagoas/ Horto Rio Verde/ Três Lagoas Agroflorestal/ Black light trap/ *Eucalyptus grandis* stand/ Flechtmann, C.A.H. Col/ [hand writen to the side] 19/X/1993. // [red paper, printed] Types genus/ *Selviria*/ / Dt.Z. Stebnicka. // [yellow paper, printed] *Selviria*/ *matogrossoensis*/ D.t.Z.Stebnicka."; CEMT.

Other material examined

BRAZIL – **Mato Grosso do Sul** • 1 spec.; Selvíria, UNESP farm; 21 Nov. 1993; C.A.H. Flechtmann leg.; *Brachiaria decumbens* pasture; black light trap; CEMT. – **Minas Gerais** • 1 spec.; Ijaci, Fazenda FAEPE; Nov. 2002; J. Louzada leg.; light; CEMT.

Sexual dimorphism

Males with apical spur of protibiae inwardly curved.

Collecting information

Specimens were collected in pasture regions with black light traps and in nests of *Solenopsis invicta* Buren, 1972 (Stebnicka 1999a, 2007a).

Genus ***Tanyana*** Stebnicka, 2006

Diagnosis

Length 2.0–2.7 mm. Body oval, dorsally glabrous, reddish brown. Head punctate; clypeus sinuate. Pronotum with lateral and posterior margins grooved, not fringed with setae; posterior margin without marginal line; posterior angles sinuate, delimited by two dentiform processes. Elytra with fine humeral teeth; striae wider close to lateral margins. Mesoventrite with V-shaped furrow parallel to the medial margin of mesocoxa; metaventrite with arched groove near the posterior margin of the mesocoxa.

Remarks

Tanyana currently has two recognized species recorded from Brazil, Colombia, French Guiana, Guiana, Peru and Suriname (Schoolmeesters 2023; Stebnicka 2003a; Minkina 2022).

Key to species of *Tanyana* from Brazil (Portuguese version in Supp. file 1)

1. Head with dense coarse punctures; clypeus clearly sinuate (Fig. 26A). Posterior margin of pronotum clearly sinuate ..... ***T. guyanaensis*** (Stebnicka, 2003) (Fig. 26A–B)
– Head with coarser punctures scattered; clypeus faintly sinuate (Fig. 26C). Posterior margin of pronotum weakly sinuate, almost straight ..... ***T. aniae*** Minkina, 2022 (Fig. 26C)

Tanyana aniae Minkina, 2022
Figs 26C, 54A

Tanyana aniae Minkina, 2022: 138–141.

Diagnosis

Length 2.5–2.9 mm. Head with coarse punctures scarce, scattered; clypeus weakly sinuate. Pronotum with fine and coarse punctures; coarse punctures scattered, closer near lateral margins; posterior angles

weakly sinuate, posterior tooth, present as an obtuse angulation; posterior margin weakly sinuate. Elytral striae coarsely punctate. Abdominal clearly strigate.

Material examined

FRENCH GUIANA • 1 spec.; St Laurent de Maroni, Bélvédère de Saül; 3°37′22″ N, 53°12′57″ W; elev. 326 m; 22 Mar. 2011; SEAG leg.; CEMT.

Sexual dimorphism

Unknown

Collecting information

Specimens were collected with flight intercept traps.

Remarks

This species was first recorded for Brazil by Minkina (2022). The single analyzed specimens is damaged, its head is missing and the pronotum is detached from the rest of the body. Due to these facts, part of the diagnosis was made following only the original description (Minkina 2020).

Tanyana guyanaensis (Stebnicka, 2003)
Figs 26A–B, 54A

Taenia guyanaensis Stebnicka, 2003a: 356.

Tanyana guyanaensis – Stebnicka 2006: 183.

Diagnosis

Length 2.0–2.1 mm. Head with coarse punctures close and denser coarse punctures; clypeus clearly sinuate. Pronotum with punctures fine and coarse; coarse punctures dense, absent at anterior half of pronotum; posterior angles acutely sinuate, posterior tooth acuminate. Elytral striae coarsely punctate. Abdominal ventrites strigate.

Material examined

BRAZIL – **Acre** • 1 spec.; Mâncio Lima, Parna Serra do Divisor; 7°24′59″ S, 73°37′56″ W; 10–14 Dec. 2019; R.A. Azevedo leg.; CEMT. – **Mato Grosso** • 1 spec.; Alta Floresta, P.E. Cristalino; 9°32′45″ S, 55°54′57″ W; 11–15 Nov. 2019; R.A. Azevedo leg.; FIT; CEMT • 1 spec.; same data as for preceding; 9°32′59″ S, 55°54′58″ W; 20–24 Nov. 2019; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 9°49′08″ S, 58°15′40″ W; 19–24 Oct. 2012; F.Z. Vaz-de-Mello leg.; FIT; CEMT.

COLOMBIA – **Vaupés** • 3 specs; R.N. Mosiro Itajura (Caparú), Centro Ambiental; 1°04′ S, 69°31′ W; elev. 60 m; 20 Jan.–1 Feb. 2013; M. Shakoy and D. Arias leg.; FIT; CEMT.

FRENCH GUIANA • 1 spec.; Cayenne, Station Nouragues; 4°05′ N, 52°41′ W; 8 Mar. 2011; SEAG leg.; inselberg; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of females.

Collecting information

Specimens were collected with flight intercept traps at altitudes ranging from 30 to 480 metres (Stebnicka 2003a).

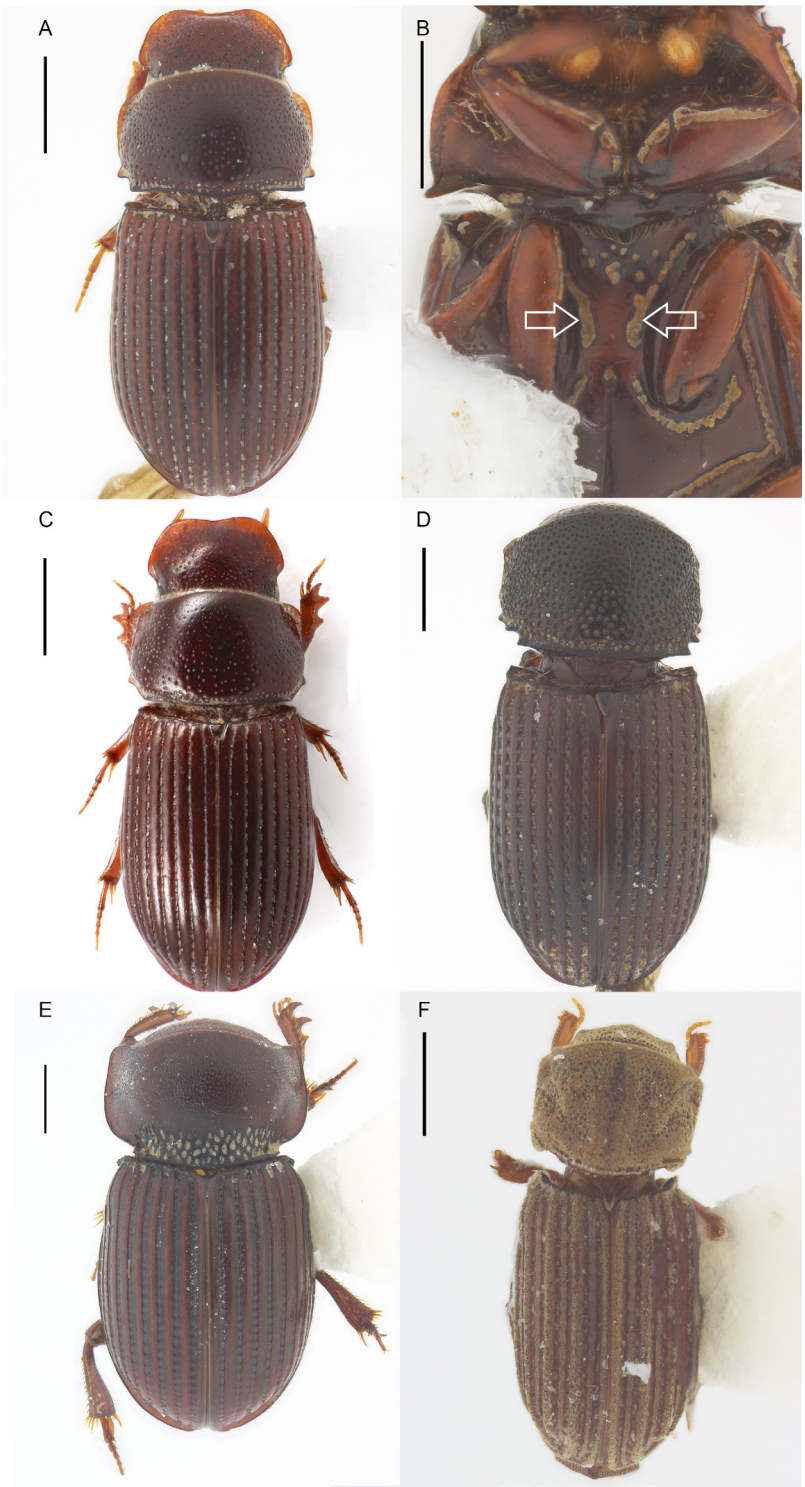

Fig. 26. A–B. *Tanyana guyanaensis* (Stebnicka, 2003) (CEMT), Mâncio Lima, Acre, Brazil. **A**. Dorsal habitus **B**. Mesoventrite, ventral view (arrows indicate furrows next to lateral margins of mesocoxa). **C**. *T. aniae* Minkina, 2022, holotype, ♂ (Lukasz Minkina Privet Collection), dorsal habitus (image by Lukasz Minkina). **D**. *Saprolochus tridentatus* Skelley, 2007 (CEMT), Mâncio Lima, Acre, Brazil, dorsal habitus **E**. *Stebnickiella zosterixys* Skelley, 2007 (CEMT), Barcelos, Amazonas, Brazil, dorsal habitus. **F**. *Amerilochus cinereus* Skelley, 2007 (CEMT), Manaus, Amazonas, Brazil, dorsal habitus. Scale bars = 0.5 mm.

Tribe Odontolochini Stebnicka & Howden, 1996

Genus ***Amerilochus*** Skelley, 2007 (new record)

Diagnosis

Length 2.4 mm. Body elongate, cylindrical, argillaceous gray. Head wide, downward bent; clypeus sinuate, anterior margin thickened. Pronotum with sides sharply declined; dorsally with two longitudinal and parallel carinae; lateral margins strongly sinuate before posterior margin, emargination forming a small tooth; posterior margin with strong marginal line, sinuate. Elytra with humerus projecting forwards, finely setaceous. Profemur broad with only two apical teeth. Meso- and metatibia dorso-ventrally flattened, gradually wider towards apical margin.

Remarks

Amerilochus is a monotypic genus with previously only a record from Peru (Skelley 2007b)

Amerilochus cinereus Skelley, 2007
Figs 26F, 54B

Amerilochus cinereus Skelley, 2007b: 3.

Diagnosis

Same as for the genus.

Material examined

BRAZIL – **Amazonas** • 1 spec.; Manaus, Tarumá Mirim; 3 Mar. 1982; CEMT • 1 spec.; Manaus, Rio Tarumá Mirim, Igapo; 10 Mar. 1977; J. Adis leg.; CEMT • 2 specs: same data as for preceding; INPA • 2 specs; same data as for preceding; 24 Mar. 1977; CEMT • 1 spec.; same data as for preceding; 30 Mar. 1977; CEMT • 1 spec.; same data as for preceding; INPA • 1 spec.; same data as for preceding; 13 Apr. 1977; CEMT • 1 spec.; terra firme [dry land forest]; 3°02′ S, 60°17′ W; 26 May 1983; A. Rodrigues leg.; secondary forest; CEMT.

Sexual dimorphism

Unknown.

Collecting information

Specimens have been collected at 90 metres above sea level in the Amazon rainforest (Skelley 2007b).

Genus ***Saprolochus*** Stebnicka & Galante, 2007 (new record)

Diagnosis

Length 2.3–4.0 mm. Body elongate, convex, piceous. Head broad, with strongly gibbous medially, coarsely punctate posteriorly and with short transverse wrinkles anterior margin of clypeus; clypeus sinuate, anterior margin thickened medially, downward bent with big acuminate dentiform process. Pronotum tumid anteriorly, laterally declined and variably punctate. Elytra with humeral denticle and with interstriae weakly convex; striae shallow, with coarse punctures separated by short transverse carina. Mesoventrite with V-shaped furrow parallel to lateral margin of mesocoxa.

Remarks

Saprolochus has four recognized species reported from Bolivia, Guyana, Peru and Venezuela (Skelley 2007b; Stebnicka & Galante 2007). For a key to all its species see Skelley (2007b).

Saprolochus tridentatus Skelley, 2007
Figs 26D, 54B

Saprolochus tridentatus Skelley, 2007b: 7–9.

Diagnosis

Length 3.5–5.7 mm. Head broad, strongly gibbous medially; coarsely punctate posteriorly; clypeus sinuate, anterior margin thickened medially, downwardly bent with big acuminate dentiform process. Pronotum punctate; finer punctures mixed with larger punctures; marginal line present; posterior angles with three dentiform processes. Elytra with interstriae weakly convex, shagreened; striae shallow, with somewhat quadrate punctures.

Material examined

BRAZIL – **Acre** • 2 specs; Mâncio Lima, Parna Serra do Divisor; 7°24′59″ S, 73°37′56″ W; 6–10 Dec. 2019; R.A. Azevedo leg.; FIT; CEMT.

Sexual dimorphism

Male unknown.

Collecting information

Specimens were collected from rotten palm tree flowers (Skelley 2007a) and with flight intercept traps in rainforests.

Genus ***Saprositellus*** Balthasar, 1967

Diagnosis

Length 2.8–3.0 mm. Body elongate, cylindrical, convex, piceous. Head punctate, with wrinkled area just after anterior margin; clypeal margin medially thickened and acuminate, downwardly bent; margin sinuate, lateral angles with group of denticles. Pronotum tumid anteriorly, punctate, with shallow and short posteromedial longitudinal furrow and two lateral fovea; sides sharply declined; lateral margin ending in obtuse teeth. Elytra with striae coarsely punctured; interstriae convex to carinate.

Remarks

Saprositellus has five recognized species. This genus has been recorded from Bolivia, Brazil, French Guiana, Guyana, Panama and Peru (Stebnicka 2003d; Skelley 2007b). For a key to all its species see Skelley (2007b).

Key to species of *Saprositellus* from Brazil (adapted from Skelley 2007b) (Portuguese version in Supp. file 1)

1. Interstriae convex (Fig. 27B). Pronotum without posterior marginal line .... ***S. denticulatus*** Balthasar, 1967 (Fig. 27B)
– Interstriae carinate (Fig. 27A). Pronotum with posterior marginal line .... ***S. ariquemes*** Stebnicka, 2003 (Fig. 27A)

Saprositellus denticulatus Balthasar, 1967
Figs 27B, 55A

Saprositellus denticulatus Balthasar, 1967: 138.

Diagnosis

Length 2.8–3.0 mm. Head with coarse punctures; clypeus with angles lateral to emarginate area with six to seven denticle. Pronotum coarsely and densely punctate; without posterior marginal line. Elytra with small humeral tooth; striae coarsely punctured as wide as interstriae; interstriae convex. Posterior margin of meso- and metafemora lobed medially.

Material examined

BRAZIL – **Amazonas** • 1 spec.; Coari, Rio Urucu; 4°55′53″ S, 65°18′13″ W; 25 Feb.–10 Mar. 1995; Bührnheim *et al.* leg.; RUC-36; CEMT.

Sexual dimorphism

Unknown.

Collecting information

Specimens were collected in the Amazon forest.

Saprositellus ariquemes Stebnicka, 2003
Figs 27A, 55A

Saprositellus ariquemes Stebnicka, 2003d: 453–455.

Diagnosis

Length 2.6–2.8 mm. Head with coarse punctures; clypeus with lateral angles with six to seven denticles. Pronotum coarsely and densely punctate; with posterior marginal line. Elytra with small humeral tooth; striae wider than interstriae; interstriae carinate.

Material examined

BRAZIL – **Acre** • 2 specs; Rio Branco; 10°01′58″ S, 67°42′13″ W; elev. 183 m; 12 Nov. 2015; M. Fazolin leg.; forest; CEMT. – **Amazonas** • 1 spec.; Iranbuda, Rio Solimões, Ilha de Marchantaria; 3°15′ S, 59°58′ W; 22 Jan. 1982; J. Adis leg.; várzea [lowland]; CEMT • 1 spec.; same data as for preceding; 4 Feb. 1982; CEMT • 5 specs; Manaus, Res. Adolpho Ducke; 2°55′49″ S, 59°58′32″ W; 28 Apr.–3 May 2013; F.Z. Vaz-de-Mello leg.; CEMT. – **Mato Grosso** • 10 specs; Cotriguaçu, Fazenda São Nicolau; 9°51′53″ S, 58°13′13″ W; 3 Nov. 2017; F.Z. Vaz-de-Mello leg.; prainha; manually; CEMT.

Sexual dimorphism

Males with fifth abdominal ventrite shorter than that of female; disc of pygidium longer than that of female.

Collecting information

Specimens were collected manually or with black light traps (Stebnicka 2003d).

Genus ***Stebnickiella*** Skelley, 2007

Diagnosis

Length 3.3 mm. Body piceous, oval, strongly convex, reddish brown. Head wider than elytra, finely punctate; clypeus inconspicuously sinuate, margin thickened medially. Pronotum strongly tumid anteriorly; disc densely and finely punctate; lateral margin explanate; posterior margin with rows of coarse, wide punctures, depressed and laterally compressed. Elytra oval, convex with small humeral tooth; interstriae weakly convex, striae deep. Mesoventrite coarsely punctured, with two sinuate furrows near lateral margins of mesocoxa.

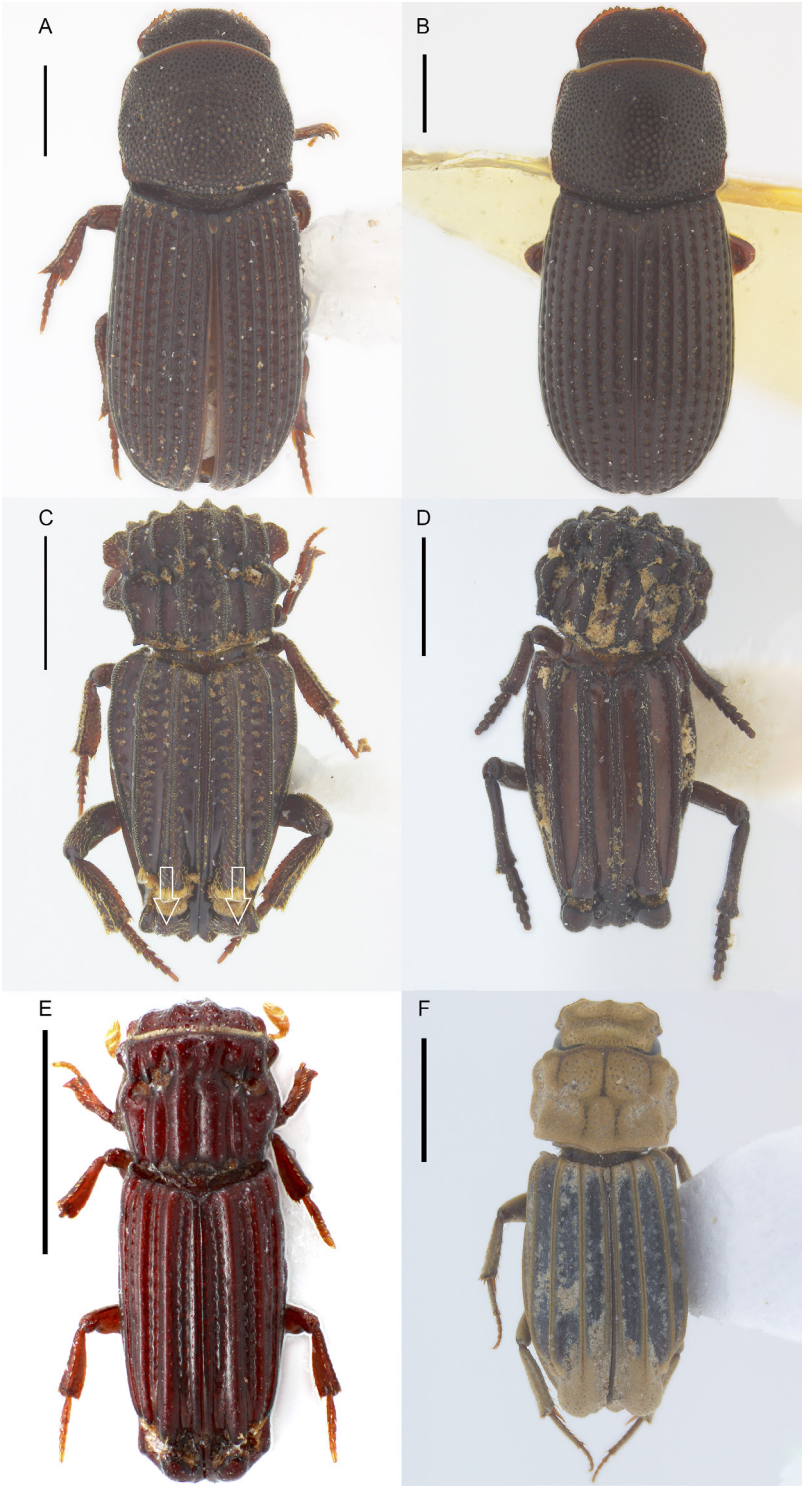

Fig. 27. A. *Saprositellus ariquemes* Stebnicka, 2003 (CEMT), Rio Branco, Acre, Brazil, dorsal habitus. **B**. *S. denticulatus* Balthasar, 1967 (CEMT), Coari, Amazonas, Brazil, dorsal habitus. **C**. *Aschnarhyparus peregrinus* (Hinton, 1934) (CEMT), Assis Brasil, Acre, Brazil, dorsal habitus. **D**. *Termitodius coronatus* Wasmann, 1894 (CEMT), Rio Branco, Acre, Brazil, dorsal habitus. **E**. *Leptorhyparus brasiliensis* Minkina, 2020, holotype (Lukasz Minkina Private Collection), dorsal habitus (image by Lukasz Minkina); **F**. *Cartwrightia cartwrighti* Cartwright, 1967 (CEMT), Goiânia, Goiás, Brazil, dorsal habitus. Scale bars: A–B = 0.5 mm; C–F = 1 mm.

Remarks

Stebnickiella is a monotypic genus previously recorded from Colombia and Guyana (Skelley 2007b; Buriticá & Vaz-de-Mello 2016).

Stebnickiella zosterixys Skelley, 2007
Figs 26E, 54B

Stebnickiella zosterixys Skelley, 2007b: 14.

Diagnosis

Same as for the genus.

Material examined

BRAZIL – **Amazonas** • 2 specs; Barcelos, Parna do Jaú; 1°50′35″ S, 61°34′07″ W; 18 Oct.–2 Nov. 2021; R.A. Azevedo leg.; FIT; CEMT.

COLOMBIA – **Vaupés** • 1 spec.; R.N. Mosiro-Itajura (Caparú), Centro Ambiental; 1°04′ S, 69°31′ W; 20 Jan.–1 Feb. 2003; M. Shakoy and D. Arias leg.; FIT; CEMT.

Sexual dimorphism

Male unknown.

Collecting information

Specimens were collected with flight intercept traps in tropical rainforests.

Tribe Psammodiini Mulsant, 1842

Afrodiastictus Pittino & Marini, 1986

Diagnosis

Length 1.6–2.2 mm. Body elongate, cylindrical, posteriorly dilate piceous with testaceous legs. Head granulated, clypeus emarginate; frontoclypeal suture distinct; frons variably punctured. Pronotum with at least two shallow transverse furrows and two transverse ridges, third transverse furrow and ridge may not be present or weakly developed; posteromedial longitudinal furrow present, dividing second and third transverse furrows and ridges. Elytra with interstriae carinate or flat. Metatarsomere with first tarsomere cylindrical, somewhat dilated posteriorly, shorter than longer apical spur.

Remarks

Afrodiastictus has seven recognized species, but only two occur in the New World: *A. mimicus* (Gordin & Cartwright, 1980) and *A. minutus* (Gordon & Cartwright 1980; Pittino & Marini 1986; Gordon & Pittino 1992). This genus is recorded from Bolivia, Brazil and Venezuela (Gordon & Cartwright 1980). For a key to the Neotropical species see Gordon & Cartwright (1980) (as *Rhyssemus* Mulsant, 1842).

Afrodiastictus minutus (Petrovitz, 1970)
Figs 28A, 55B

Rhyssemus minutus Petrovitz, 1970: 238.

Afrodiastictus minutus – Gordon & Pittino 1992: 270.

Diagnosis

Length 1.6–1.8 mm. Head with clypeus sinuate, tuberculate; frontoclypeal suture grooved; frons coarsely punctured. Pronotum with two distinct transverse furrows and ridges, third furrow if present, weakly developed, present as a line of coarse confluent punctures; posteromedial longitudinal furrow present cutting in half the second furrow.

Material examined

BRAZIL – **Acre** • 13 specs; Rio Branco; 10°01′58″ S, 67°47′13″ W; elev. 183 m; 12 Jul. 2015; M. Fazolin leg.; forest; CEMT. – **Roraima** • 1 spec.; Amajari, EsEc Maracá, Uranicoera River; 3°20′59″ N, 61°25′22″ W; elev. 83 m; 24 Mar. 2016; A.P.M. Santos *et al.* leg.; CEMT.

Sexual dimorphism

Male and female indistinguishable from each other.

Collecting information

Specimens were at altitudes from 83 to 183 metres.

Genus ***Leiopsammodius*** Rakovic, 1981

Diagnosis

Length 2.5–3.8 mm. Body short, robust, dilated posteriorly. Head granulate; clypeus emarginate, not denticulate. Pronotum with at least one vestigial transversal furrow behind eyes. First tarsomere of metatarsus posteriorly dilated, somewhat triangularly shaped.

Remarks

Leiopsammodius currently has 49 recognized species but only 14 are found in the New World (Rakovic 1990; Gordon & Pittino 1992; Harpootlian *et al.* 2000; Schoolmeesters 2023). The genus has a worldwide distribution (Rakovic 1990), in the New World this taxon has been recorded from Argentina, Bolivia, Brazil, Chile, Dominica, Guadeloupe, Paraguay and the USA (Rakovic 1990; Harpootlian *et al.* 2000). Identification keys for species of *Leiopsammodius* can be found in Cartwright (1955) (as *Psammodius* Fallén, 1807), Rakovic (1990) and Harpootlian *et al.* (2000).

Key to species of *Leiopsammodius* from Brazil (adapted from Rakovic 1990) (Portuguese version in Supp. file 1)

1. Pronotum with at least two well formed transverse furrows 2
– Pronotum without visible clear transverse furrows, may present a vestigial transverse furrow behind eyes 4

2. Elytra with humeral region covered with few long and fine setae .....***L. soledadei*** (Petroviz, 1961)
– Elytra with humeral region not covered with setae, denticulate 3

3. Width of metafemora equals half their length. Width of apical margin of metatibia equal to 1/3 its length .....***L. manaosi*** (Cartwright, 1955)
– Width of metafemora more than half their length. Width of apical margin of metatibia equal to half its length .....***L. santaremi*** (Cartwright, 1955)

4. Elytra striae with very large and distinct punctures. Protibiae with apical tooth extremely large, projecting almost straight forward .....***L. globatus*** (Petrovitz, 1972)
– Elytra with striae moderately punctate. Protibial apical teeth not as above .....
.....***L. martinezi*** (Cartwright, 1955) (Fig. 29E–F)

Leiopsammodius globatus (Petrovitz, 1972)
Fig. 55B

Psammodius globatus Petrovitz, 1972: 163–164.

Leiopsammodius globatus – Rakovic 1990: 7.

Diagnosis

Length 3.5 mm. Body piceous. Clypeus emarginate; gena notched at genal suture. Pronotum without transverse furrows; lateral margins without fringe of setae. Elytra without humeral tooth; striae strongly impressed. Protibiae with posterior outer teeth reduced, the middle teeth normally developed, the apical tooth extremely large, almost straight forward.

Sexual dimorphism

Unknown.

Collecting information

No information available in literature.

Remarks

This species was originally described from Serra de Paranapiacaba, São Paulo State, Brazil (Petrovitz 1972). Specimens unavailable for analysis, thus diagnosis and positioning in the dichotomous key were based on the available literature.

Leiopsammodius manaosi (Cartwright, 1955)
Fig. 55B

Psammodius manaosi Cartwright, 1955: 437.

Leiopsammodius manaosi – Rakovic 1990: 10.

Diagnosis

Length 2.5 mm. Body ferruginous. Head with frons coarsely punctured; clypeus emarginate, without teeth; gena fimbriate. Pronotum with posterior angles obtusely rounded; sides not fimbriate nor crenulate; surface with three transverse furrows and a medial longitudinal furrow. Elytra with fine humeral tooth, striae somewhat shallow; punctures fine, weakly crenating interstriae. Abdominal ventrites crenulate anteriorly.

Sexual dimorphism

Unknown.

Collecting information

No information available in literature.

Remarks

This species was originally described from Manaus, Amazonas State, Brazil (Cartwright 1955). Specimens unavailable for analysis, thus diagnosis and positioning in the dichotomous key were based on the available literature.

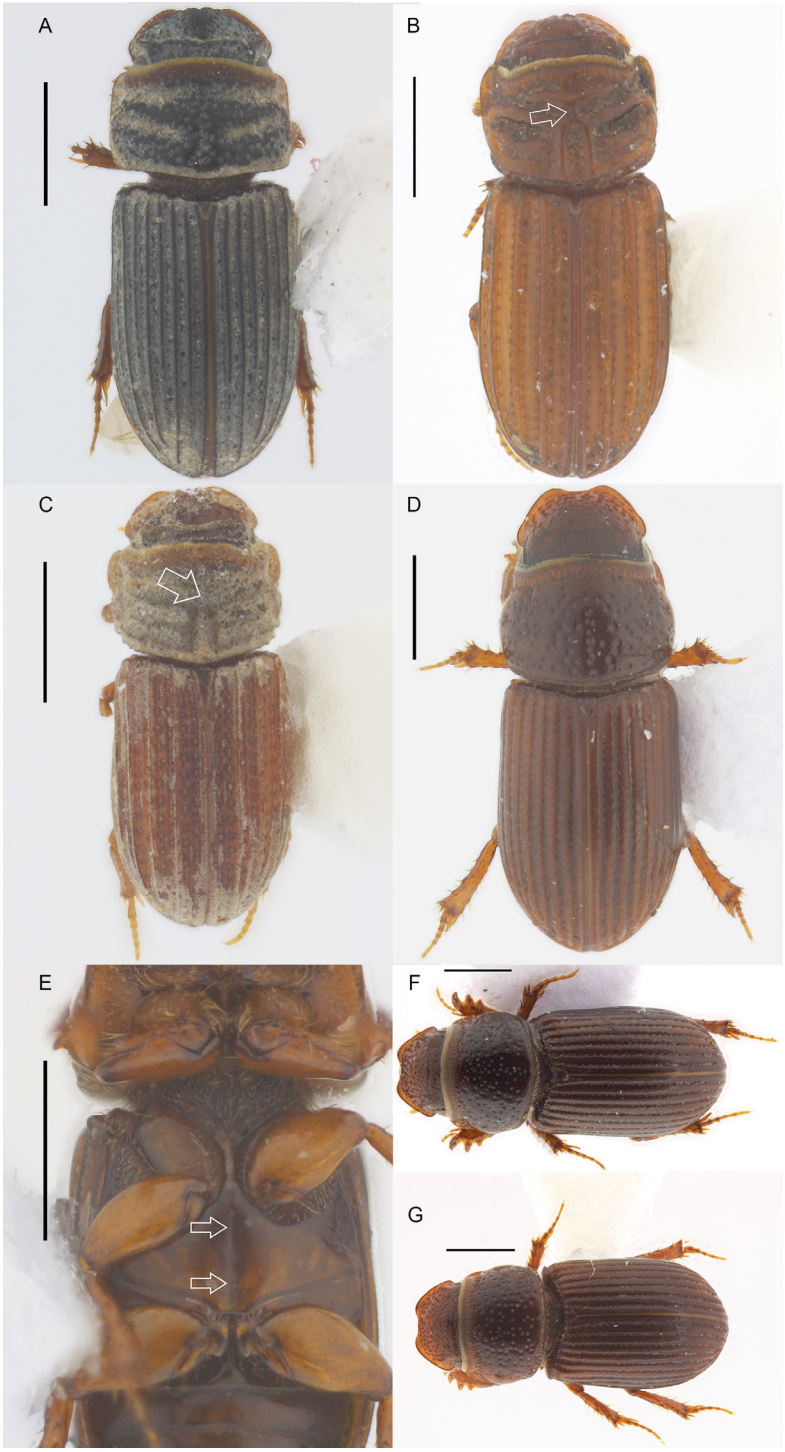

Fig. 28. A. *Afrodiastictus minutus* (Petrovitz, 1970) (CEMT), Rio Branco, Acre, Brazil, dorsal habitus. **B**. *Neorhyssemus quinquecostatus* (Schmidt, 1911) (CEMT), Caravelas, Maranhão, Brazil, dorsal habitus. **C**. *N. lineatus* (Gordon & Cartwright, 1980) (CEMT), Manaus, Amazonas, Brazil, dorsal habitus (arrow indicates longitudinal furrow). **D–E**. *Platytomus parvulus* (Chevrolat, 1864) (CEMT), Cáceres, Mato Grosso, Brazil. **D**. Dorsal habitus. **E**. Metaventrite (arrows indicate complete medial furrow). **F**. *P. freudei* (Balthasar, 1960) (CEMT), Cotriguaçu, Mato Grosso, Brazil, morphotype, dorsal habitus. **G**. *P. longulus* (Cartwright, 1948) (CEMT), Brasília, Distrito Federal, Brazil, morphotype, dorsal habitus. Scale bars = 0.5 mm.

Leiopsammodius martinezi (Cartwright, 1955)
Figs 29E–F, 55B

Psammodius martinezi Cartwright, 1955: 449.

Leiopsammodius martinezi – Rakovic 1990: 11.

Diagnosis

Length 3.8 mm Body robust, compact, piceous. Head granulate; clypeus emarginate. Pronotum with vestigial transverse furrows right behind eyes; dorsal surface everywhere densely punctured by punctures moderate to coarse.

Material examined

BRAZIL – **Distrito Federal** • 4 specs; Planaltina, Embrapa CPAC; 15°36′15″ S, 47°43′09″ W; elev. 1030 m; 3 Oct. 2013; C.M. Oliveira leg.; molasses, alcohol and pineapple; CEMT • 1 spec.; same data as for preceding; 18 Nov. 2013; CEMT • 2 specs; Reserva Ecológica IBGE; 2009; R. Japiassu leg.; CEMT. – **Mato Grosso** • 1 spec.; Chapada dos Guimarães, Condomínio Ecoville; 15°12′14″ S, 55°55′38″ W; 23 Feb. 2019; A. Mota and Leon leg.; Cerrado; manually; CEMT • 6 specs; Cuiabá, Estância Leôncio; 15°11′11″ S, 55°58′00″ W; 1 Nov. 2020; A. Mota and Leon leg.; CEMT. – **Minas Gerais** • 1 spec.; Ingaí; Jan. 2003; S.A Falqueto leg.; CEMT • 1 spec.; Ingaí-Lavras, prox. Poço Bonito; Nov. 2002; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Ingaí, prox. Poço Bonito (Lavras); 1 Nov. 2002; S.A. Falqueto leg.; bovine feces; CEMT. – **Paraná** • 1 spec.; Castro, Estra. Castro-Tibagi, Km 15; elev. 1200 m; Oct. 2005; Grossi and Parizott leg.; CEMT. – **São Paulo** • 1 spec.; Descalvado, Fazenda Itaúnas; 19 Oct. 2006; N.W. Perioto leg.; forest + *Citrus* plantation; pitfall; CEMT • 2 specs; Luis Antonio, E.E. de Jataí; 20–23 Nov. 2008; S.P. Rosa and M. Ladenthin leg.; CEMT.

PARAGUAY – **Amambay** • 1 spec.; Pedro Juan Caballero, Facultad de Ciencias Agrarias; 5 Nov. 1994; M.A.R. Díaz leg.; pasture area; bovine feces; CEMT.

Sexual dimorphism

Unknown.

Collecting information

Specimens were collected within bovine faecal masses and fermented fruits (pineapple). This species occurs at altitudes up to 1500 metres.

Leiopsammodius santaremi (Cartwright, 1955)
Fig. 55B

Psammodius santaremi Cartwright, 1955: 438.

Leiopsammodius santaremi – Rakovic 1990: 11.

Diagnosis

Length 2.5 mm. Body ferruginous. Head emarginate; frons with three to four coarse punctures on each side near frontoclypeal. Pronotum with three transverse furrows. Elytra humeral region finely denticulate; lateral margin not fringed; striae wide, deep with moderate punctures, strongly crenate interstriae.

Sexual dimorphism

Unknown.

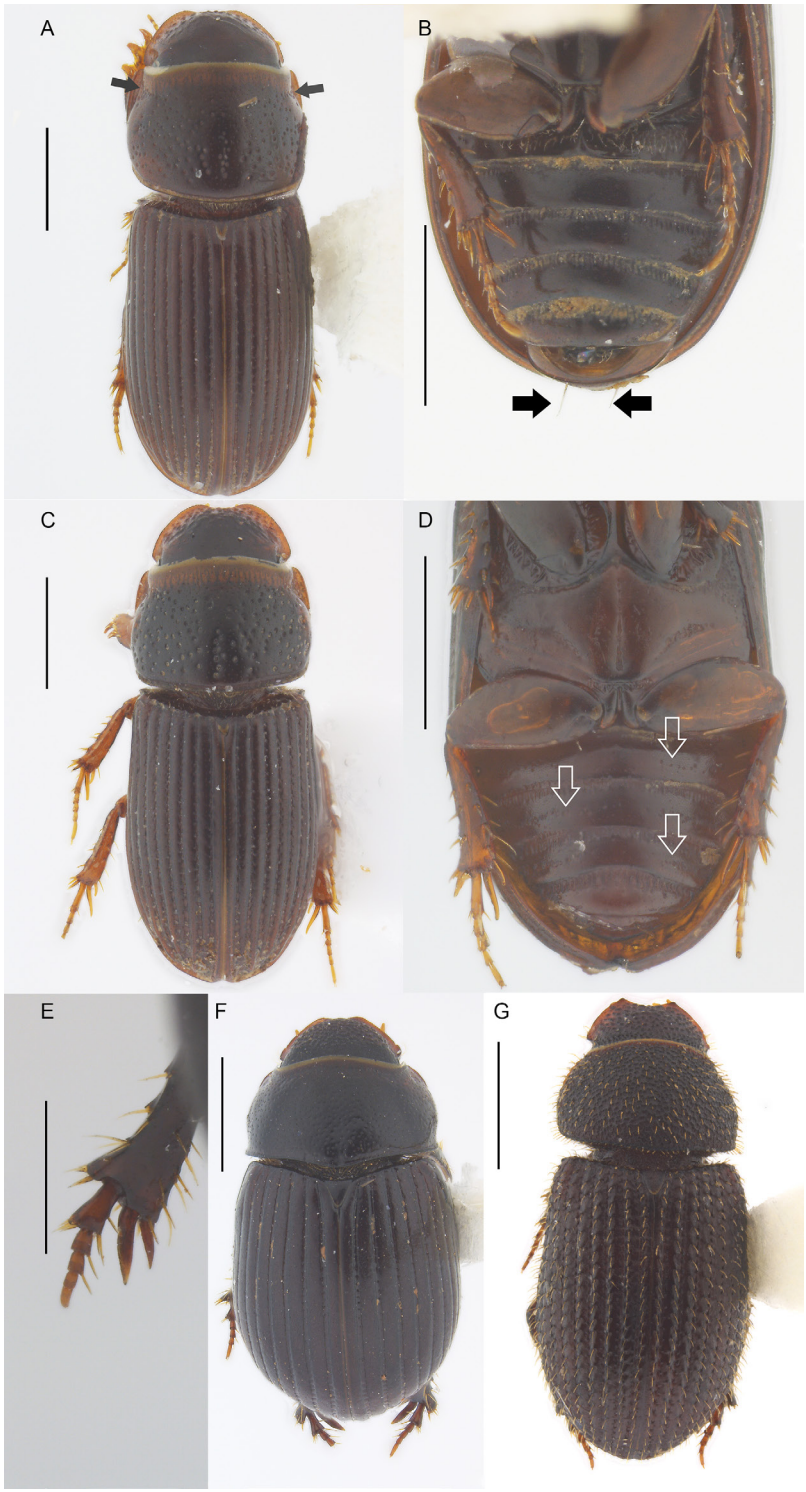

Fig. 29. A–B. *Platytomus bordati* Rakovic, Mencl & Král, 2020 (CEMT), Lençóis, Bahia, Brazil. **A**. Dorsal habitus. **B**. Abdominal ventrites (arrows indicate two setae near uro-genital opening). **C–D**. *P. brasiliensis* Rakovic, Mencl & Král, 2020 (CEMT), Sesc Pantanal, Mato Grosso, Brazil. **C**. Dorsal habitus **D**. Abdominal ventrites (arrows indicate median row of punctures). **E–F**. *Leiopsammodius martinezi* (Cartwright, 1955) (CEMT), Planaltina, Distrito Federal, Brasília, Brazil. **E**. Dorsal habitus. **F**. Metatarsus. **G**. *Trichiopsammobius brasiliensis* Petrovitz, 1963 (CEMT), Barreiras, Bahia, Brazil, dorsal habitus. Scale bars: A–E = 0.5 mm; F–G = 1 mm.

Collecting information

No information available in literature.

Remarks

This species was originally described from Santarém, Pará, Brazil (Cartwright 1955). Specimens unavailable for analysis, thus diagnosis and positioning in the dichotomous key were based on the available literature.

Leiopsammodius soledadei (Petrovitz, 1961)
Fig. 55B

Psammodius soledadei Petrovitz, 1961b: 130.

Leiopsammodius soledadei – Rakovic 1990: 12.

Diagnosis

Length 3.1 mm. Head with clypeus emarginate; frontoclypeal suture indistinct; pronotum not punctate. Pronotum with three transverse furrows; transverse ridges flat and wine with fine and scattered punctures; lateral margins finely fimbriate. Elytra with humeral region covered with few long and fine setae; interstriae strongly convex smooth and not punctate.

Sexual dimorphism

Unknown.

Collecting information

No information available in literature.

Remarks

This species was originally described from Juazeiro farm, now city of Juazeirinho, near Soledade City, Paraiba State, Brazil (Petrovitz 1961b; IBGE 1990b). Specimens unavailable for analysis, thus diagnosis and positioning in the dichotomous key were based on the available literature.

Genus ***Odontopsammodius*** Gordon & Pittino 1992

Diagnosis

Length 3.75 mm. Body elongate, oval, strongly convex, piceous to light piceous. Head granulate; emarginate, lateral angles denticulate; frontoclypeal suture not visible. Pronotum dorsal surface variably punctate; fringed with setae; without evident transverse furrows or ridges except for fine furrow right behind the eyes. Elytra with fine striae; interstriae weakly convex. Metatibiae broad, robust. First metatarsomere widened apically, triangular, shorter than great apical spur and as long as the following three tarsomeres combined.

Remarks

Odontopsammodius has 12 recognized species (Gordon & Pittino 1992) recorded from Argentina, Bolivia, Brazil, Cuba, Dominica, Guadeloupe, Puerto Rico, Mexico and the USA (Rakovic 1990). For keys to all its species see Cartwright (1955) (as *Psammodius*) and Rakovic (1990) (as *Leiopsammodius*).

Odontopsammodius insulcatus (Schmidt, 1916)
Fig. 56A

Psammodius insulcatus Schmidt, 1916: 102.

Leiopsammodius insulcatus – Rakovic 1990: 8.
Odontopsammodius insulcatus – Gordon & Pittino 1992: 266.

Diagnosis

Length 3.75 mm. Body piceous. Head granulate; frons smooth. Pronotum quite densely punctured; punctures smaller near anterior margin and sides; sides crenate, fringed with setae; posteriorly without marginal line. Elytra with interstriae smooth, flat, striae fine; margins not fimbriate.

Sexual dimorphism

Unknown.

Collecting information

No information available in literature.

Remarks

This species was originally described from Blumenau, Santa Catarina State, Brazil. Specimens unavailable for analysis, diagnosis and positioning in the dichotomous key were based on the available literature (Gordon & Pittino 1992).

Genus ***Neorhyssemus*** Gordon & Pittino, 1992

Diagnosis

Length 1.7–2.1 mm. Body elongate, broadened posteriorly, dark testaceous. Head with clypeus granulate and sinuate medially; frontoclypeal suture visible, grooved. Pronotum with five transverse ridges; posteromedial longitudinal furrow present. Elytra with interstriae alternately carinate. First metatarsomere cylindrical, somewhat dilated posteriorly.

Remarks

Neorhyssemus has four recognized species reported from Brazil and Guyana (Gordon & Cartwright 1980). For key to all its species see Gordon & Cartwright (1980) (as *Rhyssemus*).

Key to species of *Neorhyssemus* from Brazil (adapted from Gordon & Cartwright 1980) (Portuguese version in Supp. file 1)

1. Elytra rounded laterally. Longitudinal ridges of pronotum completely dividing four transverse ridges ..... ***N. intrinsecus*** (Gordon & Cartwright, 1980)
– Elytra parallel sided. Longitudinal ridges dividing only three transverse ridges 2

2. Longitudinal pronotal ridges joined anteriorly, extending to short transverse ridge .... ***N. quinquecostatus*** (Schmidt, 1911) (Fig. 28B)
– Longitudinal pronotal ridges not joined anteriorly, not extending to short transverse ridge .... ***N. lineatus*** (Gordon & Cartwright, 1980) (Fig. 28C)

Neorhyssemus intrinsecus (Gordon & Cartwright, 1980)
Fig. 56A

Rhyssemus intrinsecus Gordon & Cartwright, 1980: 17.

Neorhyssemus intrinsecus – Gordon & Pittino 1992: 270.

Diagnosis

Length 1.7–2.0 mm. Body somewhat short. Head tuberculate; tubercles sharp; clypeus emarginate; frontoclypeal suture grooved. Pronotum with four transversal ridges interrupted medially, only first ridge complete. Elytral margin rounded.

Sexual dimorphism

Male and female indistinguishable from each other.

Collecting information

Specimens were collected in the Amazon rainforest; collecting methodology unavailable in the consulted literature or analyzed material.

Remarks

This species was originally described from Jacaré, Xingu National Park, Mato Grosso State, Brazil. Specimens unavailable for analysis, diagnosis and positioning in the dichotomous key were based on the available literature.

Neorhyssemus lineatus (Gordon & Cartwright, 1980)
Figs 28C, 56A

Rhyssemus lineatus Gordon & Cartwright, 1980: 16.

Neorhyssemus lineatus – Gordon & Pittino 1992: 270.

Diagnosis

Length 1.7–2.0 mm. Head tuberculate; clypeus emarginate; frontoclypeal suture furrowed, sinuate. Pronotum with second transverse ridge interrupted medially by longitudinal furrow; longitudinal ridges not joined anteriorly. Elytra with costate interstriae, costae rounded.

Material examined

BRAZIL – **Amazonas** • 1 spec.; Manaus, Taruma-Mirim nr Manaus; 3 Mar. 1982; CEMT • 1 spec.; same data as for preceding; 18 Aug. 1981; CEMT • 1 spec.; same data as for preceding; 3°02′ S, 60°17′ W; 25 Aug. 1982; A. Rodrigues leg.; secondary forest; CEMT • 1 spec.; same data as for preceding; 26 May 1983; CEMT • 2 specs; same data as for preceding; 27 Jun. 1983; CEMT • 1 spec.; Manaus, Rio Tarumã Mirim; 3°46′ S, 60°33′ W; 13 Mar. 1998; S. Golovatch leg.; igapó [flooded forest]; CEMT • 1 spec.; Manaus, Rio Tarumã Mirim-igapó [flooded forest]; 1 Jun. 1976; J. Adis leg.; INPA • 1 spec.; same data as for preceding; 8 Oct. 1976; INPA • 1 spec.; same data as for preceding; 15 Dec. 1976; INPA • 1 spec.; same data as for preceding; 3°02′ S, 60°17′ W; 26 May 1983; CEMT • 1 spec.; same data as for preceding; 27 Jun. 1983; CEMT.

Sexual dimorphism

Male and female indistinguishable from each other.

Collecting information

Specimens were collected in the Amazon rainforest; collecting methods not available in the consulted literature or analyzed material.

Neorhyssemus quinquecostatus (Schmidt, 1911)
Figs 28B, 56A

Rhyssemus quinquecostatus Schmidt, 1911a: 15.

Neorhyssemus quinquecostatus – Gordon & Pittino 1992: 270.

Diagnosis

Length 1.9–2.1 mm. Head with clypeus emarginate; frontoclypeal suture furrowed; sinuate. Pronotal transverse ridges widely separated with second transverse ridge not interrupted medially; longitudinal ridges joined among them anteriorly. Elytra with thick costae.

Material examined

BRAZIL – **Bahia** • 1 spec.; Caravelas; Mar. 1996; R. Diniz leg.; CEMT. – **Maranhão** • 8 specs; Carolina, Fazenda Cincorá; 17–22 Oct. 2009; F. Limeira-de-Oliveira, R.O. Souza and M.B. Aguiar Neto leg.; CEMT • 2 specs; Pedrinhas, São Luís Island; 17 Aug. 1984; E.C. Bergmann leg.; blacklight; CEMT. – **Mato Grosso** • 2 specs; Chapada dos Guimarães; 25 Mar. 2001; A.D. Ramos leg.; light trap; CEMT • 3 specs; same data as for preceding; 15°24′31″ S, 55°43′53″ W; 2 Dec. 2015; A. Frolov and L. Akhmetova leg.; CEMT • 8 specs; Diamantino, Alto Rio Arinos; Oct. 2001; E. Furtado leg.; CEMT. – **Rondônia** • 4 specs; Fazenda Rancho Grande, 62 km S of Ariquemes; Feb. 1997; Vaz-de-Mello and Vulinec leg.; CEMT.

Sexual dimorphism

Unknown.

Collecting information

Specimens were collected with light traps.

Genus ***Platytomus*** Mulsant, 1842

Diagnosis

Length 1.8–3.3. Body elongate, convex, dilated posteriorly, testaceous to piceous. Head granulate; clypeus emarginate; frontoclypeal suture evident or not. Pronotum with vestiges of transverse furrows and ridges; transverse furrows normally only visible right behind eyes, evidenced by line of punctures; posteromedial longitudinal furrow evident. Elytra with striae deep; interstriae flat or weakly convex. Tarsus cylindrical.

Remarks

Platytomus is a cosmopolitan genus with 29 recognized species (Schoolmasters 2023) and at least 12 are found in the new world (Gordon & Pittino 1992; Rakovic *et al.* 2020b). A key for some of the species of *Platytomus* in the New World was written by Cartwright (1948).

Key to species of *Platytomus* from Brazil (adapted from Cartwright (1948) and Rakovic *et al.* (2020b) (Portuguese version in Supp. file 1)

1. Pygidium with 5–7 setae near uro-genital opening 2
– Pygidium with only two setae near uro-genital opening (Fig. 29B) 3

2. Specimens testaceous; margin of clypeus clearly strongly upturned. Metaventrite longitudinal furrow obsolete anteriorly ..... ***P. longulus*** complex (Fig. 28F–G)
– Specimens piceous; margin of clypeus weakly upturned. Metaventrite longitudinal furrow not obsolete anteriorly (Fig. 28E) ..... ***P. parvulus*** (Chevrolat, 1895) (Fig. 28D–E)

3. Head with granules well developed, extending until posterior half of clypeus. Metaventrite with posterior transverse furrows obtusely angular. Abdominal ventrites medially finely punctate, coarse punctures restricted to sides (Fig. 29B) ..... ***P. bordati*** Rakovic, Mencl & Král, 2020 (Fig. 29A–B)
– Head with granules rather obsolete, restricted to anterior 1/3 of clypeus. Metaventrite with posterior transverse furrows arched, not obtuse. Abdominal ventrites with medial row of coarse punctures (Fig. 29D) .....***P. brasiliensis*** Rakovic, Mencl & Král, 2020 (Fig. 29C–D)

Platytomus bordati Rakovic, Mencl & Král, 2020
Figs 29A–B, 56B

Platytomus bordati Rakovic, Mencl & Král, 2020: 92–96.

Diagnosis

Length 2.1–2.4 mm. Body piceous. Head granulate; granules reaching anterior half of clypeus; clypeus emarginate; frontoclypeal suture finely impressed. Pronotum with coarse and fine punctures; coarse punctures scattered. Elytra with striae deep; interstriae convex. Metaventrite with posterior transverse furrows obtusely arched. Abdominal ventrites medially finely punctured; coarse punctures restricted to lateral margins. Pygidium with only two setae near uro-genital opening.

Material examined

BRAZIL – **Bahia** • 1 spec.; Lençóis Ribeirão de Baixo; 12°35′12″ S, 41°22′56″ W; elev. 340 m; 4 Jun. 2007; J.A. Rafael and F.F. Xavier leg.; light; CEMT. – **Distrito Federal** • 2 specs; Brasília, Fazenda Água (UNB); Sep. 2010; C. Suinaga leg.; CEMT • 3 specs; Brasília; elev. 1100 m; Jan. 2001; N. Degallier leg.; light; CEMT • 2 specs; same data as for preceding; Feb. 2001; CEMT • 1 spec.; same data as for preceding; Mar. 2001; CEMT • 1 spec.; Planaltina, Embrapa Cerrados; 15°35′54″ S, 47°42′51″ W; 24 Mar. 2006; C. Oliveira leg.; agricultural area; light; CEMT • 3 specs; same data as for preceding; 15°35′54″ S, 47°42′51″ W; 7 Apr. 2006; C. Oliveira leg.; agricultural area; light; CEMT.

Sexual dimorphism

Females with sixth abdominal ventrite longer than males.

Collecting information

Specimens were collected at light at altitudes up to 1100 m.

Platytomus brasiliensis Rakovic, Mencl & Král, 2020
Figs 29C–D, 56B

Platytomus brasiliensis Rakovic, Mencl & Král, 2020: 96–100.

Diagnosis

Length 2.2–2.3 mm. Body piceous. Head with weakly elevated granules; granules restricted to anterior third of clypeus; clypeus emarginate; frontoclypeal suture fine. Pronotum densely punctured by fine and coarse punctures. Elytra with striae deep; interstriae weakly convex. Metaventrite with posterior transverse furrows arched. Abdominal ventrites with median row of coarse punctures. Pygidium with only two setae near uro-genital opening**.**

Material examined

BRAZIL – **Mato Grosso** • 1 spec.; Sesc-Pantanal; 1 Nov. 2001; Malaise trap; CEMT • 1 spec.; same data as for preceding; 15 Apr. 2002; light; CEMT • 1 spec.; same data as for preceding; 5 Jul. 2003; CEMT • 1 spec.; same data as for preceding; 9 Aug. 2002; CEMT • 1 spec.; same data as for preceding; 7 Jul. 2004; CEMT • 8 specs; Cotriguaçu, Fazenda São Nicolau; 20 Aug. 2018; R. Stofel leg.; CEMT • 10 specs; same data as for preceding; 9°49′09″ S, 58°15′31″ W; 21 Oct. 2018; V. Costa-Silva leg.; CEMT • 45 specs; same data as for preceding; 9°51′52″ S, 58°13′45″ W; 2 Oct. 2017; Vaz-de-Mello *et al.* leg.; CEMT • 1 spec.; Cuiabá, Fazenda Mutuca; 15°19′31″ S, 55°58′03″ W; elev. 285 m; Nov. 2015; R.V. Nunes and A. Frolov leg.; light; CEMT • 1 spec.; Juína, Distrito de Fontanillas; 17 May 2012; S.E. Silva leg.; FIT; CEMT • 4 specs; Tangará da Serra; 14°38′33″ S, 57°33′18″ W; 19–22 Feb. 2012; A.S. Tissiani leg.; CEMT. – **Minas Gerais** • 1 spec.; Diamantina; 23 Feb.–3 Mar. 2001; N. Degallier leg.; CEMT. – **Paraná** • 1 spec.; Telêmaco Borda, Klabin Papel e Celulose; 13 Oct. 2006; C.A.H. Flechtmann leg.; *Pinus taeda*; multiple funnel trap baited with sulcato and pinene; FIT; CEMT.

Sexual dimorphism

Female with sixth abdominal ventrite longer than that of males.

Collecting information

Specimens were collected with Malaise, light and flight intercept traps.

Platytomus longulus complex
Figs 28F–G, 57A

Diagnosis

Length 2.0–2.4 mm. Body light to dark testaceous. Head granulate; clypeus with its margins elevated; frontoclypeal suture fine. Pronotum with punctures of two sizes, fine and coarse. Elytra with medial darkened area near lateral margins; striae deep; interstriae flat. Pygidium with 5–7 long setae near uro-genital opening. Metaventrite with longitudinal furrow obsolete anteriorly. First metatarsomere cylindrical, dilated apically shorter than the following two tarsomere combined.

Material examined

Platytomus freudei **(Balthasar, 1960)**
Diastictus freudei Balthasar, 1960: 7.
Platytomus freudei – Pittino & Mariani 1986: 55.

ARGENTINA – **Formosa** • 1 spec.; Laguna Yema, Reserva Biosfera Teuquito; 24°16′02″ S, 61°14′65″ W; 11 Dec. 2008; F.C. Ocampo leg.; CEMT.

BRAZIL – **Amazonas** 1 spec.; Castanho-Careiro, AM-359, Km 39; 3°43′59″ S, 60°20′09″ W; 6–7 Nov. 2010; J.A. Rafael *et al.* leg.; light; CEMT. – **Mato Grosso do Sul** • 1 spec.; Selvíra, UNESP Farm; 7 Nov. 1991; C.A.H. Flechtmann leg.; *Brachiaria decumbens* pasture; CEMT. – **Mato Grosso** • 4 specs; Cotriguaçu, Fazenda São Nicolau, Airport; 9°51′52″ S, 58°13′45″ W; 2 Oct. 2017; F.Z. Vaz-de-Mello *et al.* leg.; light; CEMT. – **Rio Grande do Sul** • 1 spec.; Santa Cruz do Sul, Cerro Alegre; 29°48′05″ S, 52°19′39″ W; 11 Feb. 2012; R. Bohn leg.; bovine feces CEMT.

Platytomus longulus **(Cartwright, 1948)**
Pleurophorus longulus Cartwright, 1948: 143–144.
Platytomus longulus – Pittino & Mariani 1986: 55.

BRAZIL – **Amazonas** • 4 specs; Castanho-Careiro, AM-359 Km 39; 3°43′59″ S, 60°20′09″ W; 6–7 Nov. 2010; J.A. Rafael *et al.* leg.; light; CEMT • 1 spec.; Manaus, 24 km of Embrapa-CPAA; 20 Aug. 1993; A. Pamplona leg.; light; CEMT. – **Distrito Federal** • 1 spec.; Brasília, Plano Piloto; 31 May

1958; Bello leg.; CEMT • 3 specs; Brasília, Embrapa Cerrados; 15°35′54″ S, 47°42′51″ W; 24 Mar. 2006; C. Oliveira leg.; agricultural area; light; CEMT. – **Espírito Santo** • 1 spec.; Linhares, Res. Vale Rio Doce; 19°14′46″ S, 39°57′40″ W; elev. 12 m; 5–6 May 2007; J.A. Rafael and F. Xavier leg.; light; CEMT. – **Mato Grosso** • 3 specs; Chapada dos Guimarães; 27 Apr. 2001; A.F. Ramos leg.; light; CEMT • 4 specs; same data as for preceding; 28 Apr. 2001; CEMT • 1 spec.; Cotriguaçu, Fazenda São Nicolau; 16 Jan. 2008; O. Peres-Filho leg.; light; CEMT • 2 specs; same data as for preceding, airport; 9°51′52″ S, 58°13′45″ W; 2 Oct. 2017; F.Z. Vaz-de-Mello *et al.* leg.; light; CEMT • 1 spec.; Cuiabá; 15°16′45″ S, 56°00′06″ W; 7 Jul. 2015; A. Frolov and L. Ahkmetova leg.; CEMT • 1 spec.; Sesc Pantanal; 15 Sep. 2004; light; CEMT • 1 spec.; Tangará da Serra, Fazenda Três Rios; 14°21′ S, 57°42′ W; elev. 592 m; Feb. 2008; N. Degallier leg.; Cerrado; pitfall; CEMT. – **Mato Grosso do Sul** • 1 spec.; Corumbá, Fazenda São Bento, Prox. Porto Jofre; 14 Apr. 2011; R.V. Nunes leg.; light; CEMT • 3 specs; Selvíra, UNESP Farm; 1 Oct. 1992; C.A.H. Flechtmann leg.; *Brachiaria decumbens* pasture; CEMT • 2 specs; same data as for preceding; 7 Nov. 1991; CEMT. – **Minas Gerais** • 2 specs; Cordisburgo; Dec. 1997; F.Z. Vaz-de-Mello leg.; CEMT • 1 spec.; Viçosa; May 1998; F.Z. Vaz-de-Mello leg.; CEMT. – **Paraná** • 3 specs; Guaratuba, Portal do Itararé; elev. 900 m; 15 Apr. 2005; Grossi and Caron leg.; light; CEMT • 1 spec.; Icaraíma, Estância Felipe; 23°20′32″ S, 53°39′09″ W; elev. 300 m; 2019; Felipe and Rodrigues leg.; CEMT. – **Pernambuco** • 1 spec.; Afrânio; 8°31′53″ S, 41°02′59″ W; elev. 550 m; 16 May 2007; J.A. Rafael and F. Xavier leg.; light; CEMT. – **Rio Grande do Sul** • 5 specs; Bagé; 31°21′05″ S, 54°01′13″ W; elev. 232 m; 4 Jan. 2016; R.N. Sisti *et al.* leg.; forest; CEMT • 1 spec.; Santa Cruz do Sul, Cerro Alegre; 29°48′11″ S, 52°19′51″ W; 21 Jan. 2012; R. Bohn leg.; annual crop; bovine feces; CEMT • 1 spec.; same data as for preceding; 29°48′18″ S, 52°19′55″ W; CEMT • 8 specs; same data as for preceding; 29°48′18″ S, 52°19′55″ W; 21 Jan. 2012; open area; CEMT • 1 spec.; same data as for preceding; 29°48′05″ S, 52°19′39″ W; 11 Feb. 2012; CEMT. – **Rondônia** • 2 specs; 62 km S of Ariquemes, Fazenda Rancho Grande; Feb. 1997; F.Z. Vaz-de-Mello and Vulinec leg.; CEMT • 1 spec.; Porto Velho, Rio das Graças, Bom Jesus; 8°49′47″ S, 63°46′51″ W; 22 Oct. 2017; D.C. Santos and L. Silvia leg.; FIT; CEMT. – **Santa Catarina** • 1 spec.; Florianópolis, Lagoa do Peri; 27°43′ S, 48°32′ W; Feb. 2009; A. Martins and M. Hernández leg.; Atlantic forest; CEMT. – **São Paulo** • 1 spec.; Anhembi; ESALQ/USP; E.N.L. Ferreira leg.; CEMT • 8 specs; Anhembi, ESALQ/USP, Petrobras; 22°42′ S, 47°39′ W; 2 Apr. 2013; E.N.L. Ferreira leg.; light; CEMT • 6 specs; Anhembi, ESALQ/USP; 22°43′ S, 48°10′ W; 2 Apr. 2013; E.N.L. Ferreira leg.; *E. urophylla*; light; CEMT • 1 spec.; Anhembi, ESALQ/USP, R. Legal; 22°43′ S, 48°10′ W; E.N.L. Ferreira leg.; light; CEMT • 2 specs; Anhembi, ESALQ/USP; 22°43′ S, 49°11′ W; 2 Apr. 2013; E.N.L. Ferreira leg.; *E. grandis*; light; CEMT.

UNITED STATES OF AMERICA – **Mississippi** • 4 specs; Lafayette, Oxford; 8 Sep. 1995; P.K. Lago leg.; CEMT.

Sexual dimorphism

Females with meso- and metatarsus shorter than tibiae; abdomen is more convex than in males and disc of pygidium is wider and shorter compared with that of males.

Collecting information

Specimens have been collected with light traps in pastures of *Urochloa decumbens*, Cerrado regions and in tropical rainforests.

Remarks

Platytomus longulus and *Platytomus freudei* are here treated as a complex of species due to the difficulties encountered when trying to distinguish them.

Platytomus parvulus (Chevrolat, 1864)
Figs 28D–E, 56B

Psammodius parvulus Chevrolat, 1864: 415.

Diastictus parvulus – Schmidt 1922: 488.
Pleurophorus parvulus – Chapin 1940: 8.
Platytomus parvulus – Pittino & Mariani 1986: 54.

Diagnosis

Length 1.8–3.0 mm. Body brown. Head with clypeus emarginate; margin not upturned; frontoclypeal suture not visible. Pronotum with punctures of two sizes, fine and coarse. Elytra with striae deep; interstriae weakly convex. Metaventrite furrow complete. First metatarsomere cylindrical, dilated apically shorter than the following two tarsomere combined.

Material examined

BRAZIL – **Mato Grosso** • 1 spec.; Cáceres, Fazenda Baia de Pedra; 16°29′30″ S, 58°08′55″ W; Mar. 2009; D.D. Pinheiro leg.; CEMT • 1 spec.; Cuiabá, Morada do Ouro; 15°34′02″ S, 56°03′25″ W; May–Nov. 2021; L.A.C.S. Santos leg.; CEMT • 1 spec.; Poconé, Pousada das Araras; 3 Dec. 1998; J.L Moreno and T. Mestre leg.; Pantanal; CEMT • 1 spec.; Sesc Pantanal; 11 Jun. 2002; light; CEMT • 1 spec.; same data as for preceding; 14 May 2002; CEMT • 35 specs; same data as for preceding; 15 Sep. 2004; CEMT • 1 spec.; same data as for preceding; 16 Sep. 2004: CEMT • 2 specs; same data as for preceding; 17 Jul. 2004; CEMT. – **Pernambuco** • 2 specs; Fernando de Noronha, Sancho; 20–28 Feb. 2020; Rafael and Limeira-de-Oliveira leg.; light; CEMT. – **Rio Grande do Norte** • 1 spec.; Baía Formosa, Mata Estrela; 6°23′19″ S, 35°01′05″ W; elev. 44 m; 24 May 2007 J.A. Rafael and M. Xavier leg.; light; CEMT.

GRENADA – **St Andrew** • 3 specs; Mirabeau, Agri.Lab.; 12 Sep. 1990; J. Telesford leg.; light; CEMT • 1 spec.; same data as for preceding; 20 Sep. 1990; CEMT.

PARAGUAY – **Presidente Hayes** • 1 spec.; Cruce de los Pioneros; 11 Jan. 1999; U. Peña leg.; CEMT.

Sexual dimorphism

Unknown.

Collecting information

Specimens commonly attracted to light.

Remarks

Platytomus parvulus was tentatively reported for the first time in Brazil on Fernando de Noronha island by Rafael *et al.* (2020), we here confirm this report.

Genus ***Trichiopsammobius*** Petrovitz, 1963

Diagnosis

Length 3.0–3.8 mm. Body elongate, oval, covered with setae, dark reddish brown or piceous. Head with clypeus granulate. Pronotum without vestiges of transverse furrows, covered with setiferous alveolate punctures. Elytra with interstriae covered with setaceous tubercles.

Remarks

Trichiopsammobius has two recognized species and is recorded from Brazil, Jamaica, Paraguay and Venezuela (Rakovic & Mencl 2013). A key for all its species can be found in Rakovic & Mencl (2013).

Trichiopsammobius brasiliensis Petrovitz, 1963
Figs 29G, 57B

Trichiopsammobius brasiliensis Petrovitz, 1963b: 645.

Diagnosis

Length 3.6–3.8 mm. Head with clypeus entirely granulate; clypeus sinuate; lateral angles with small upturned teeth; frons with punctures smaller than those of pronotum, grouped. Pronotum without transverse ridges; densely punctured by setiferous punctures. Elytra with interstriae covered with setaceous tubercles.

Material examined

BRAZIL – **Alagoas** • 1 spec.; Olho d'Agua do Casado, Fazenda Talhado; 21 Dec. 2000; L. Iannuzzi leg.; CEMT. – **Bahia** • 8 spec.; Barreiras; Jan. 1991: CEMT • 5 specs; same data as for preceding; Oct. 1991; J.C. Zanuncio leg.; light; CEMT • 1 spec.; 150 km W of Barreiras; Jan. 2003; P.A. Schmidt leg.; CEMT. – **Goiás** • 3 specs; Rio Verde; Nov. 1995; J. Carlos leg.; CEMT. – **Maranhão** • 26 specs; Carolina, Fazenda Cincorá; 17–22 Oct. 2009; F. Limeira-de-Oliveira, R.O. Souza and M.B.A. Neto leg.; light; CEMT • 5 specs; Imperatriz; Jan. 1998; CEMT • 2 specs; Mirador, P.E. Mirador, Base Geraldina; 27 Nov. 2008; Aguiar-Neto and A.L. Costa leg.; light; CEMT • 1 spec.; São João do Paraíso; 6°32′14″ S, 46°54′22″ W; 12 Jan. 2021; M.C. Batista leg.; human feces; CEMT. – **Mato Grosso** • 1 spec.; Chapada dos Guimarães, F. Sadia; 15°18′51″ S, 55°58′20″ W; 1 Feb. 2013; G.M. Daniel leg.; pitfall; CEMT • 7 specs; Chapada dos Guimarães, Fazenda Jardim; 29 Sep. 2012; V.C. Jorge leg.; CEMT • 4 specs; same data as for preceding; 13 Oct. 2012; CEMT • 11 specs; same data as for preceding; 10 Nov. 2012; CEMT • 1 spec.; same data as for preceding; 27 Nov. 2012; CEMT • 1 spec.; same data as for preceding; 15 Jun. 2013; CEMT • 1 spec.; Chapada dos Guimarães, Rio Claro; 15°19′15″ S, 55°52′51″ W; elev. 293 m; 5 Dec. 2012; M.A. Carvalho; CEMT • 2 specs; Chapada dos Guimarães, Santuário dos Elefantes; 15°18′55″ S, 55°24′14″ W; 23 Jan. 2020; H. Sehn *et al.* leg.; elephant feces; CEMT • 1 spec.; same data as for preceding; *Tapirus* feces; CEMT • 8 specs; Chapada dos Parecis, 30 km N of Uirapuru; 14°17′ S, 59°15′ W; 1–15 Dec. 2001; A. Foucart leg.; FIT; CEMT • 7 specs; same data as for preceding; Dec. 2002; CEMT • 2 specs; Cuiabá; 15°16′45″ S, 56°00′06″ W; 7 Dec. 2015; A. Frolov and L. Akhmetova leg.; CEMT • 1 spec.; same data as for preceding; Estância Leôncio; 15°11′11″ S, 55°58′00″ W; 1 Nov. 2020; A. Mota and Leon leg.; CEMT • 3 specs; Cuiabá, Fazenda Mutuca; 15°19′31″ S, 55°58′03″ W; elev. 285 m; Nov. 2015; R.V. Nunes and A. Frolov leg.; light; CEMT • 1 spec.; Diamantino; Oct. 2001; E. Furtado leg.; CEMT • 6 specs; Tangará da Serra, Fazenda Três Rios; 14°21′ S, 57°42′ W; elev. 592 m; Feb. 2008; R.J. Silva leg.; Cerrado; pitfall; CEMT. – **Mato Grosso do Sul** • 1 spec.; Bodoque na Fazenda Califórnia; 20°41′02″ S, 56°51′40″ W; Mar. 2011; L.O. Bavutti leg.; flight intercept; CEMT • 1 spec.; Corumbá, Nhumirim Farm; Aug. 1992; A.T.M. Barros leg.; *Equus caballus* dropping; CEMT • 1 spec.; Guia Lopes da Laguna; 15 Dec. 2007; CEMT • 1 spec.; same data as for preceding; 14 Aug. 2008; CEMT • 1 spec.; same data as for preceding; 15 Dec. 2008; A.R. Abot leg.; light; CEMT. – **Minas Gerais** • 1 spec.; Corações de Jesus, Gruta Sumitumba; 16°39′47″ S, 44°22′8″ W; 29 Jan. 2015; L.M. Rabelo leg.; CEMT • 1 spec.; Três Marias; Nov. 1989; CEMT • 3 specs; same data as for preceding; Dec. 1991; CEMT. – **Paraíba** • 1 spec.; São José dos Cordeiros, Fazenda Almas; 7°27′11″ S, 36°53′57″ W; Jun. 2019; F. Alvarado leg.; CEMT. – **Rio Grande do Norte** • 4 specs; Natal; Feb. 1951; M. Alvarenga leg.; CEMT. – **Tocantins** • 1 spec.; Araguatins, Campus IFTO; 5°37′56″ S, 48°03′55″ W; 5 Nov. 2020; Marinho and D. Bomfim leg.; pitfall; CEMT.

Collecting information

Specimens can be collected in pastures with light and flight intercept trap and on horse and *Tapirus* dung.

Tribe Rhyparini Schmidt, 1910

Genus ***Aschnarhyparus*** Makhan, 2006

Diagnosis

Length 3.0–3.8 mm. Body elongate, oval, posteriorly narrowed, piceous. Head with six short longitudinal carinae; clypeus with transversal groove before anterior margin, with four teeth, two anterior to clypeal margin and two just before gena, anterior margin not emarginate inward bent. Pronotum with lateral margin sinuate, with two lateral lobes; with six medially longitudinal carinae interrupted by a row of large pits. Elytra narrowed posteriorly, with eight longitudinal carinae and two posterior setaceous tubercles. Protibia with two teeth; meso- and metatibiae inner margin grooved; metatibia laterally flattened, wide.

Remarks

Aschnarhyparus is monotypic genus recorded from Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Guyana, Mexico, Nicaragua, Panama, Peru, Suriname and Trinidad (Skelley 2007a).

Aschnarhyparus peregrinus (Hinton, 1934)
Figs 27C, 58

Termitodius peregrinus Hinton, 1934a: 340.
Termitodius bolivensis Dajoz, 1971: 138.
Aschnarhyparus soesilae Makhan, 2006: 7–11.

Aschnarhyparus peregrinus – Skelley 2007a: 5.

Diagnosis

Same as for the genus.

Material examined

BRAZIL – **Acre** • 1 spec.; Assis Brasil; 10°35′44″ S, 69°37′12″ W; 23 Sep. 2016; Ortiz and Borges leg.; light; CEMT. – **Amazonas** • 1 spec.; Rio Nhamundá, Lg. Areias; 1°35′11″ S, 57°37′32″ W; 18–19 May 2008; Roger H. Hutchings leg.; CDC; INPA. – **Mato Grosso** • 1 spec.; Cotriguaçu, Fazenda São Nicolau, PPBio1; 9°49′17″ S, 58°15′32″ W; 31 Oct. 2017; Vaz-de-Mello *et al.* leg.; Winkler extractor; CEMT • 3 specs; same data as for preceding; 9°51′53″ S, 58°13′13″ W; 2 Nov. 2017; Vaz-de-Mello *et al.* leg.; prainha; manually; CEMT. – **Pará** • 1 spec.; Marabá, Reserva Biológica de Tapirapé; 27 Nov. 2003; F. Gumier-Costa leg.; legal Amazon; CEMT.

COLOMBIA – **Vaupés** • 2 specs; R.N. Mosiro-Itajura (Caparú), Centro Ambiental; 1°04′ S, 69°31′ W; elev. 60 m; 20 Jan.–1 Feb. 2003; M. Skakoy and D. Arias leg.; FIT; CEMT.

ECUADOR – **Pastaza** • 1 spec.; Arajuno, B.P. Oglán; elev. 540 m; 25 Apr. 2009; P.A. Araujo and W. Chamorro leg.; fumigation; CEMT.

FRENCH GUIANA • 1 spec.; Cayenne, Montage des Chevaux; 4°44′56″ N, 52°26′28″ W; elev. 75 m; 4 Apr. 2014; SAEG leg.; CEMT • 2 specs; same data as for preceding; 4°18′58″ N, 53°17′10″ W; 2 Nov. 2013; FIT; CEMT • 2 specs; same data as for preceding; 4°44′56″ N, 52°26′28″ W; elev. 75 m; 11 Feb. 2013; CEMT • 1 spec.; same data as for preceding; 30 Jan. 2013; light; CEMT • 1 spec.; same data as for preceding; 27 Jan. 2013; CEMT • 1 spec.; same data as for preceding; 4 Feb. 2013 CEMT • 1 spec.; Saint Laurent de Maroni, Belvédère de Saül; 3°37′22″ N, 53°12′57″ W; elev. 326 m; 7 Apr. 2011; FIT, SAEG leg.; CEMT • 3 specs; same data as for preceding; 15 Sep. 2011; CEMT • 1 spec.; same data as for preceding; 2011; CEMT • 1 spec.; same data as for preceding; Mar. 2011; CEMT • 3 specs; same

data as for preceding; 22 Mar. 2010; CEMT • 2 specs; same data as for preceding; 13 May 2011; CEMT • 1 spec.; same data as for preceding; 22 Mar. 2011; SAEG; CEMT.

PANAMA – **Colón** • 2 specs; San Lorenzo Forest; 9°17′ N, 79°58′ W; 25–26 Mar. 2004; A. Tishenchkin leg.; FIT; CEMT.

Sexual dimorphism

Males mesotibial marginal groove ending in a prominent pre-apical tooth before notch. Females with tooth less prominent.

Collecting information

Specimens have been collected with flight intercepts and light trap. This species has also been found inside dead trees, extracted from *Ochroma pyramidale* (Cav. ex Lam.) Urb. roots and from termite nests of *Coptotermes* Wasmann, 1896 and *Nasutitermes* Dudley, 1890 (Skelley 2007a). The altitudes this species was found range from 50 to 600 metres.

Genus ***Leptorhyparus*** Howden, 2003

Diagnosis

Length 2.3–3.4 mm. Body elongate, cylindrical, red. Head punctate; clypeus weakly sinuate; middle of clypeus with two low longitudinal carinae; frons with four rounded longitudinal carinae. Pronotum with six low longitudinal ridges, the lateral ridges interrupted by large almost circular depressions; the two middle ridges complete. Elytra with sides almost parallel; four low carinae present, three of these ending abruptly before posterior tubercle; longitudinal depressions between carinae with two rows of small punctures.

Remarks

Leptorhyparus has four recognized species from Brazil, Costa Rica, Nicaragua and Panama (Minkina 2020; Skelley 2021). A key for the species can be found in Minkina (2020).

Leptorhyparus brasiliensis Minkina, 2020
Figs 27E, 58

Leptorhyparus brasiliensis Minkina, 2020: 34–36.

Diagnosis

Length 2.3 mm. Head widely and weakly sinuate medially, bounded by obtuse angles, lateral margins sinuate before rounded gena, protruding eye line; clypeus medially with two longitudinal costae; frons with four longitudinal costae. Pronotum with six longitudinal ridges weakly elevated, only the two central ridges complete. Elytra with five elevated costae and five convex interstriae with a row of coarse punctures between them.

Sexual dimorphism

Unknown.

Collecting information

Specimens were collected with black light traps (Minkina 2020).

Remarks

No specimens were available for the present study, thus the diagnosis provided and positioning of the group in the dichotomous key were made based solely on the available literature (Minkina 2020).

Genus ***Termitodius*** Wasmann, 1894

Diagnosis

Length 3.5–4.0 mm. Body elongate, oval, posteriorly narrowed, covered with small setae, reddish brown. Head with anterior margin inflexed medially, acuminate; frons with four longitudinal costae. Pronotum with lateral margins sinuate; disc with six variably developed longitudinal carinae; peridiscal costae normally obsolete medially, visible only near anterior and posterior margin; pronotal costae always bulbous anteriorly; pronotum with two perimarginal costae. Elytra with large tubercle anterior to posterior margin and with six longitudinal carinae. Meso- and metatibia elongate, thin, not widening toward apex.

Remarks

Termitodius has four recognized species reported from Brazil, Colombia, Guatemala and Mexico (Skelley *et al.* 2022). A key for the species was written Skelley *et al.* (2022).

Termitodius coronatus Wasmann, 1894
Figs 27D, 58

Termitodius coronatus Wasmann, 1894: 220.

Diagnosis

Length 4.0 mm. Body with bulbous and carinate areas opaque, clypeus, elytral surface between carinae and tubercles near posterior margin, glossy. Clypeus with obsolete set of medial longitudinal costae medially. Pronotum with paramedian costae with anterior lobes elevated and circular in dorsal view, almost as big as the lobes of other pronotal costae.

Material examined

BRAZIL – **Acre** • 1 spec.; Rio Branco, Fazenda Catuaba; Feb. 1997; F.Z. Vaz-de-Mello leg.; CEMT.

Sexual dimorphism

Males with inner margin of mesotibia, with small preapical denticle; lateral margin sinuate between tooth and apical margin; apical fringe of setae complete.

Collecting information

Specimens have been collected in nests of *Nasititermes meinerti* (Wasmann, 1894) termites (Wasmann 1894).

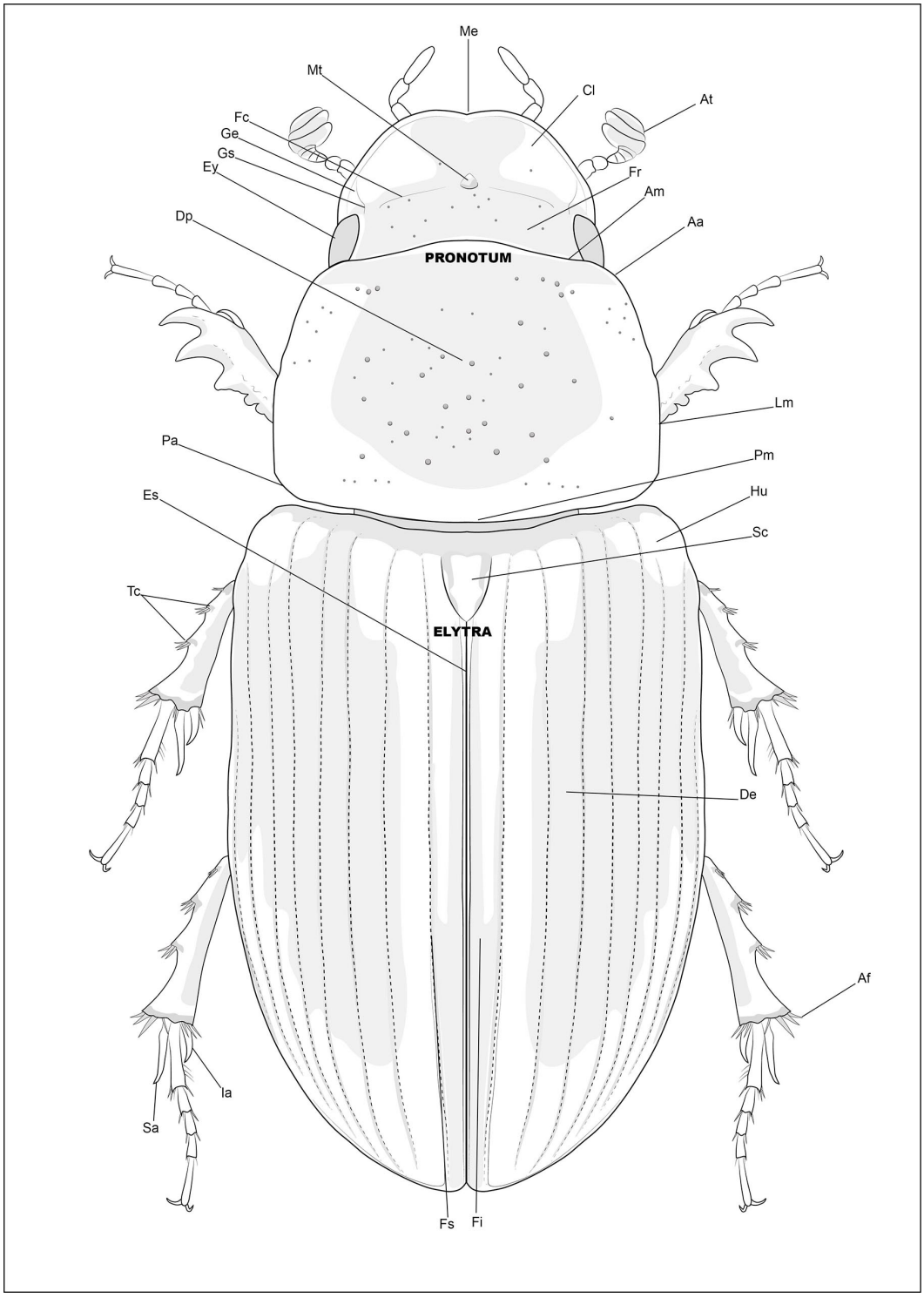

Fig. 30. *Labarrus pseudolividus* (Balthasar, 1941), illustration in dorsal habitus. Abbreviations: Aa = anterior angle; Af = apical fringe of setae; Am = anterior margin; At = antennae; Cl = clypeus; De = disc of elytra; Dp = disc of pronotum; Es = elytral suture; Ey = eyes; Fc = frontoclypeal suture; Fi = first interstriae; Fr = frons; Fs = first striae; Ge = gena; Gs = genal suture; Hu = humeri; Ia = inferior apical spur; Lm = lateral margin; Me = median emargination; Mt = median tubercle; Pa = posterior angle; Pm = posterior margin; Sa = superior apical spur; Sc = scutellum; Tc = transversal carina of meso- and metatibiae.

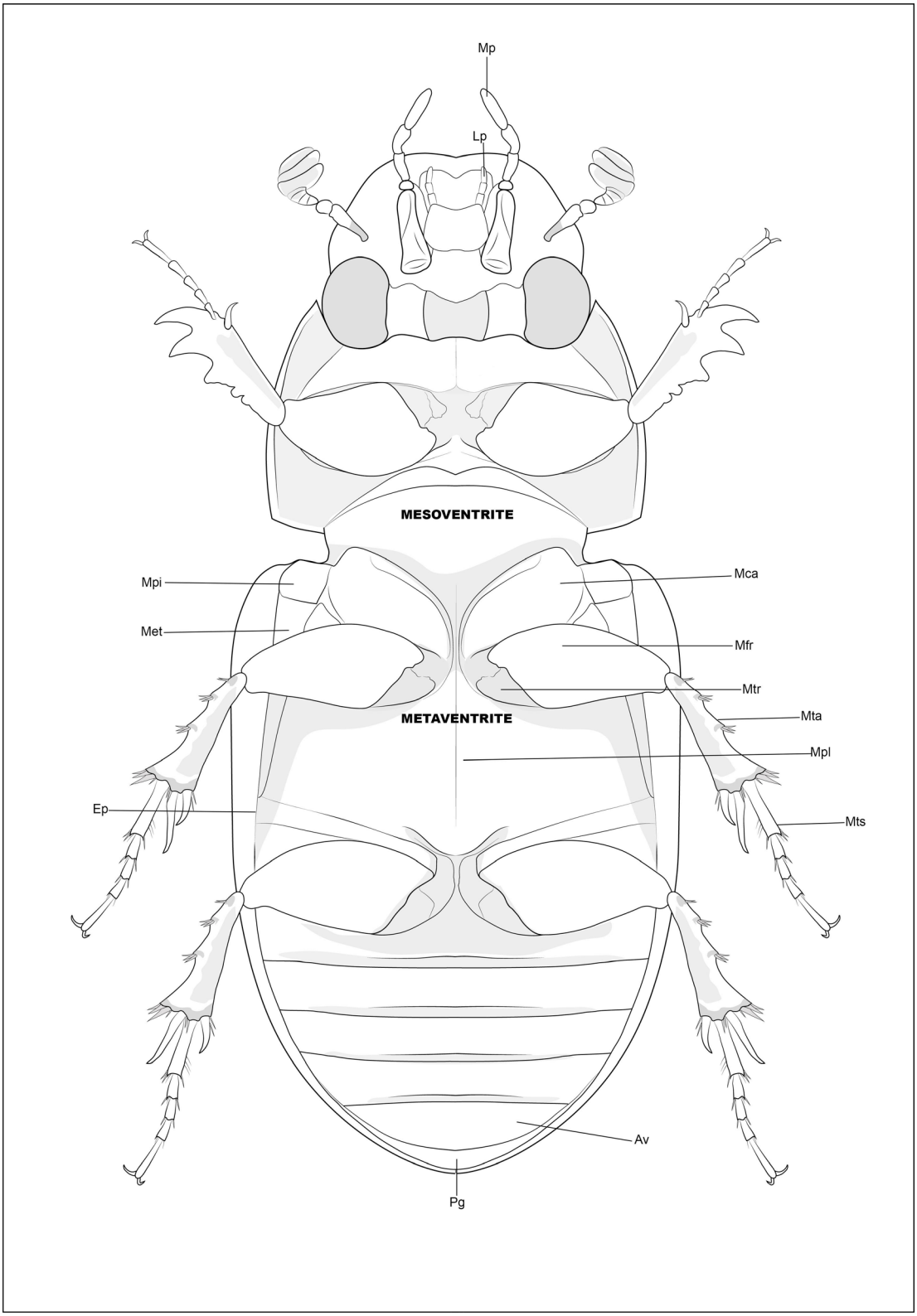

Fig. 31. *Labarrus pseudolividus* (Balthasar, 1941), illustration in ventral habitus. Abbreviations; Av = abdominal ventrite; Ep = epipleuron: Lp = labial palpi; Mca = mesocoxa; Met = metepisternon; Mfr = mesofemur; Mp = maxilary palpi; Mpi = mesepimeron; Mpl = metaventrite plate; Mta = mesotibia; Mtr = mesotrochanter; Mts = mesotarsus; Pg = pygidium.

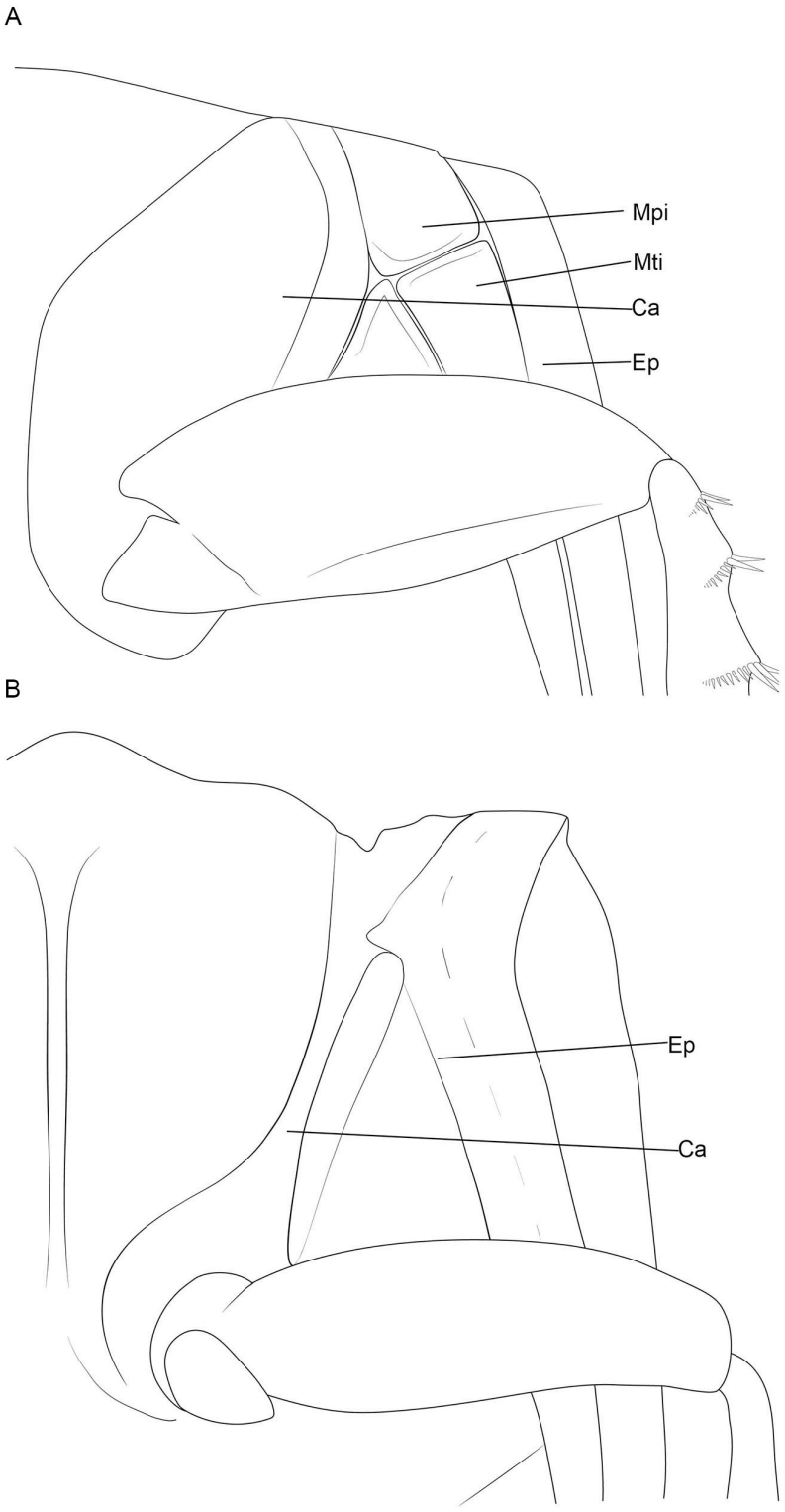

Fig. 32. A. *Labarrus pseudolividus* (Balthasar, 1941), metaventrite in ventral view. **B**. *Lomanoxia costulata* (Harold, 1867), metaventrite in ventral view. Abbreviations: Ca = coxa; Ep = epipleuron; Met = metepisternon; Mpi = mesepisteron.

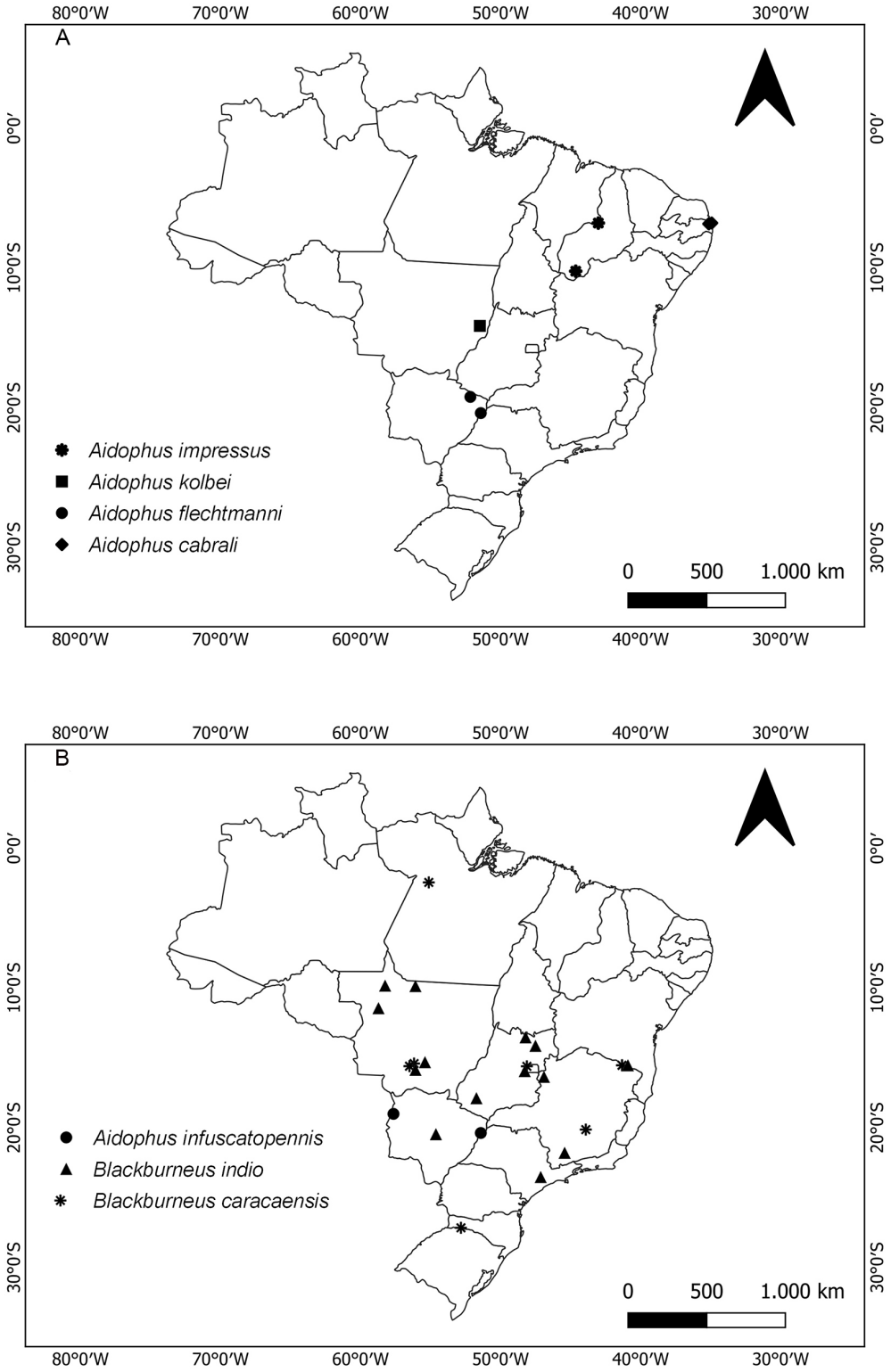

Fig. 33. Occurrence of: **A**. *Aidophus cabrali* (Petrovitz, 1973), *A. impressus* (Petrovitz, 1970), *A. flechtmanni* Stebnicka & Dellacasa, 2001, *A. kolbei* Schmidt, 1911. **B**. *A. infuscatopennis* Schmidt, 1911, *Blackburneus indio* (Petrovitz, 1973), *B. caracaensis* (Petrovitz, 1970).

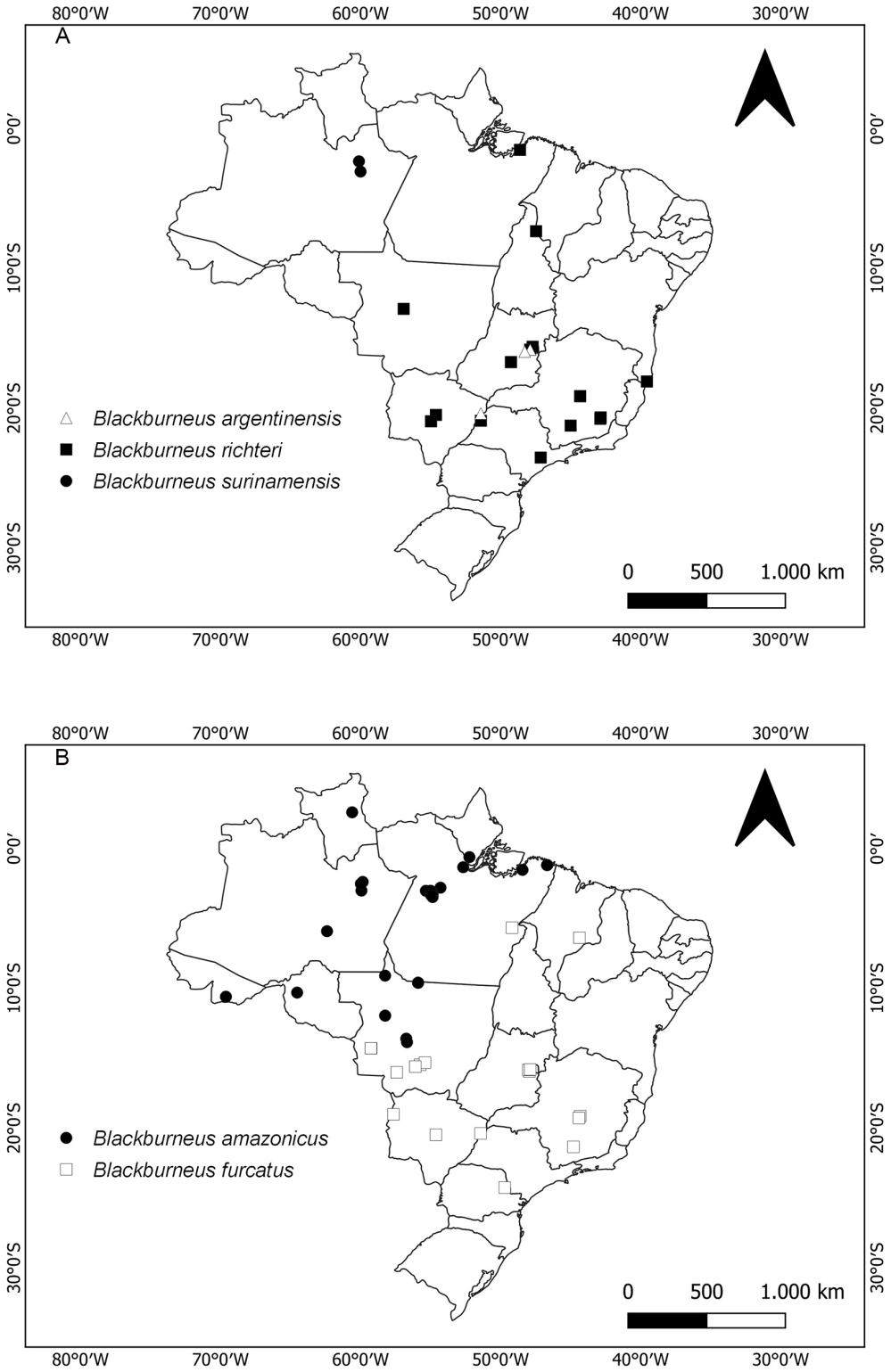

Fig. 34. Occurrence of: **A**. *Blackburneus argentinensis* (Schmidt, 1909), *B. richteri* (Schmidt, 1911), *B. surinamensis* Dellacasa, Dellacasa & Gordon, 2011. **B**. *B. amazonicus* Dellacasa, Dellacasa & Gordon, 2011, *B. furcatus* (Schmidt, 1909).

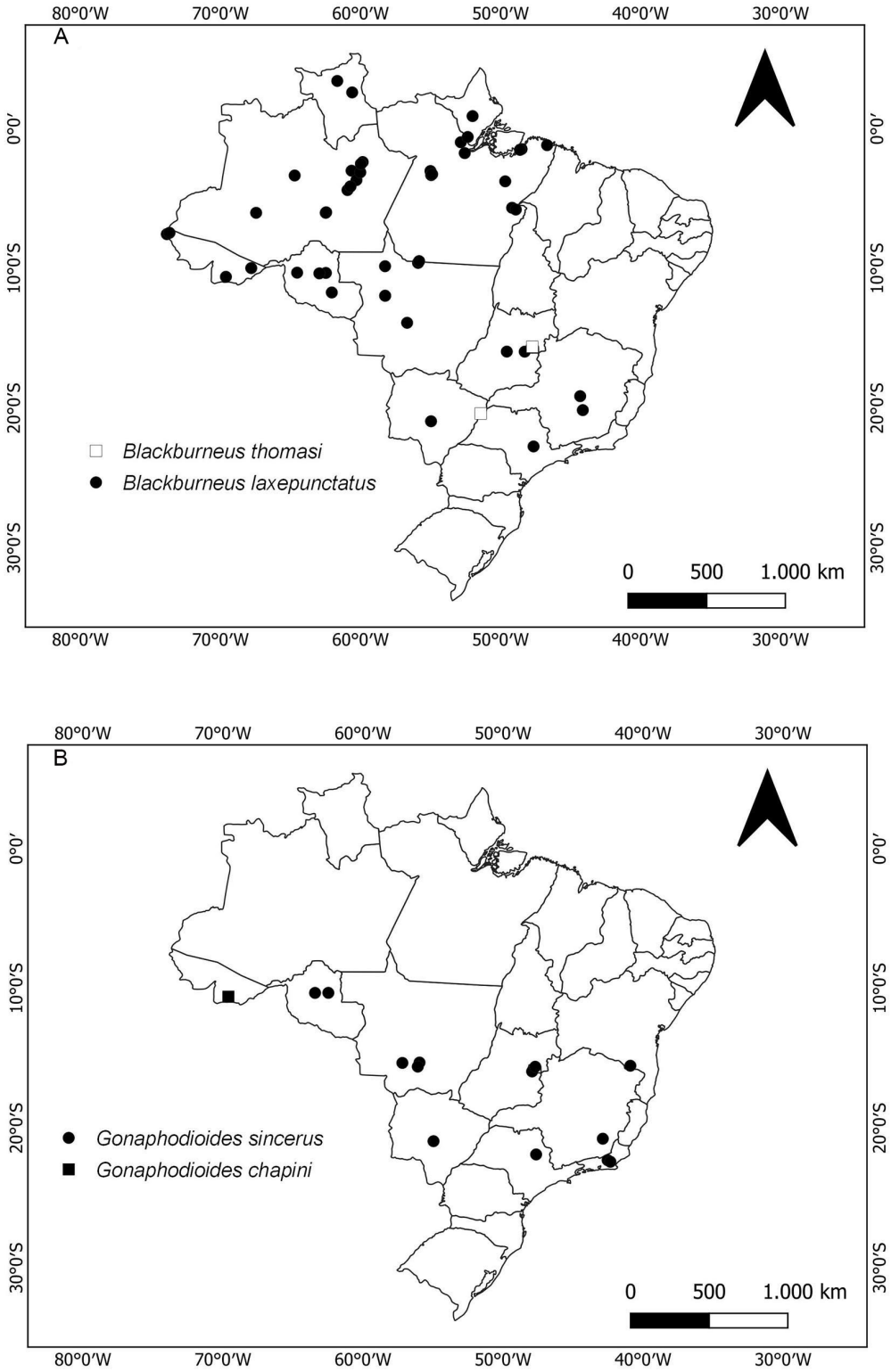

Fig. 35. Occurrence of: **A**. *Blackburneus laxepunctatus* Dellacasa, Dellacasa & Gordon, 2011, *B. thomasi* Dellacasa, Dellacasa & Gordon, 2011. **B**. *Gonaphodioides sincerus* (Petrovitz, 1973), *G. chapini* (Hinton, 1934).

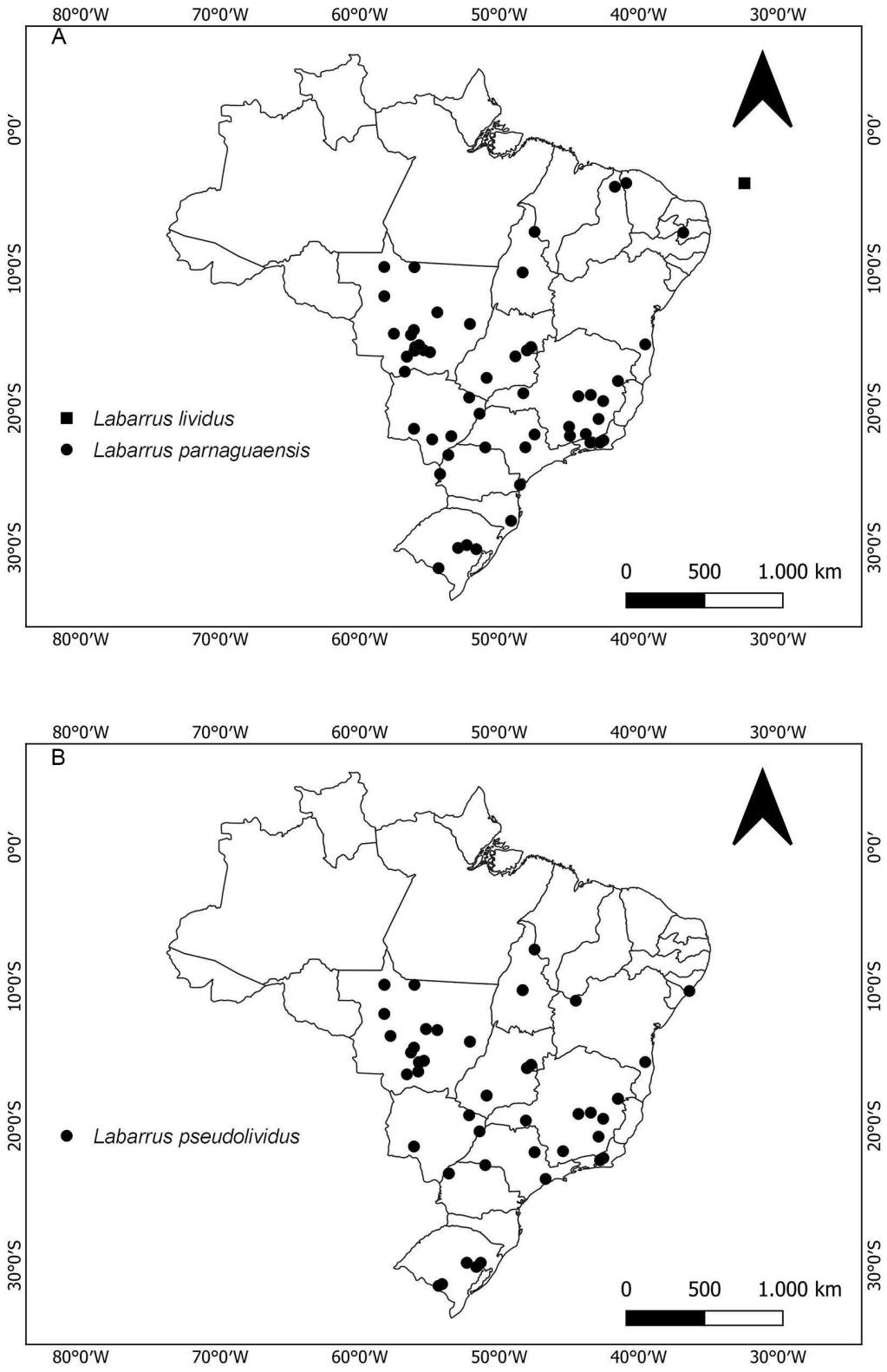

Fig. 36. Occurrence of: **A**. *Labarrus lividus* (Olivier, 1789), *L. parnaguaensis* (Petrovitz, 1961) (dot outside Brazil represents Fernando de Noronha Island). **B**. *L. pseudolividus* (Balthasar, 1941).

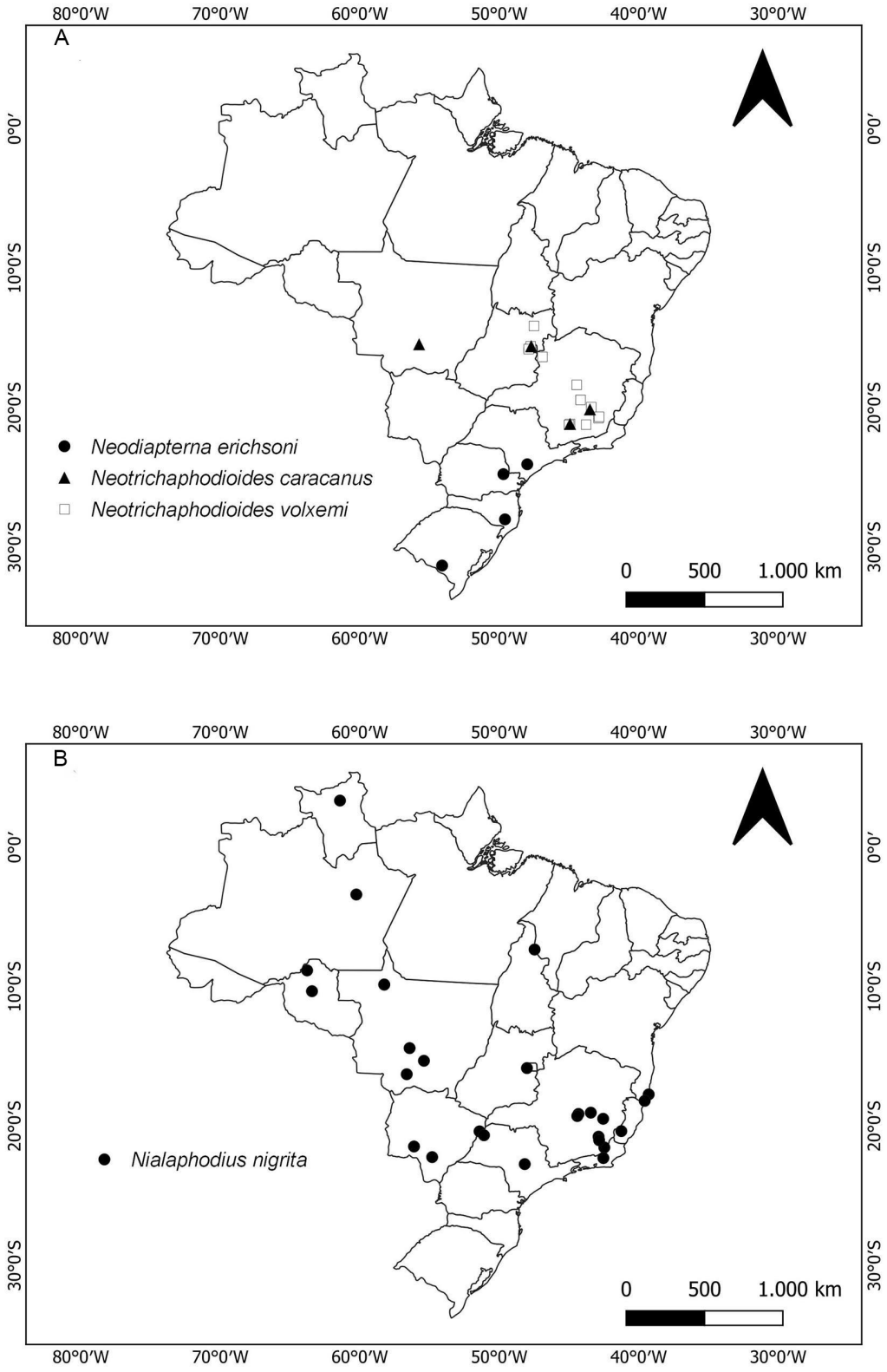

Fig. 37. Occurrence of: **A**. *Neodiapterna erichsoni* (Harold, 1861), *N. caracanus* (Balthasar, 1970), *N. volxemi* (Harold, 1876). **B**. *Nialaphodius nigrita* (Fabricius, 1801).

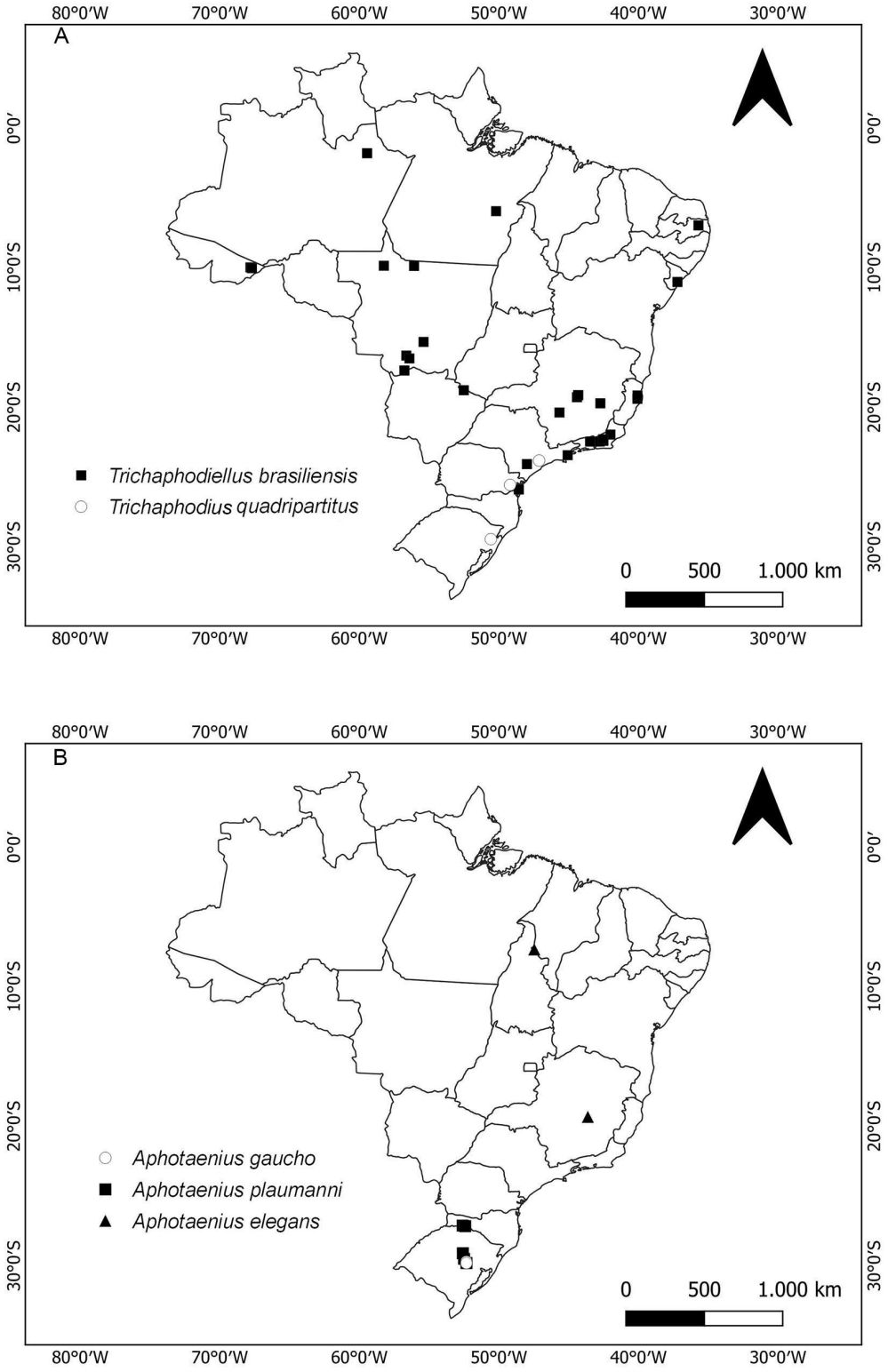

Fig. 38. Occurrence of: **A**. *Trichaphodiellus brasiliensis* (Castelnau, 1840), *T. quadripartitus* (Petrovitz, 1973). **B**. *Aphotaenius gaucho* Skelley & Vaz-de-Mello, 2020, *A. plaumanni* Cartwright, 1963, *A. elegans* Skelley & Vaz-de-Mello, 2020.

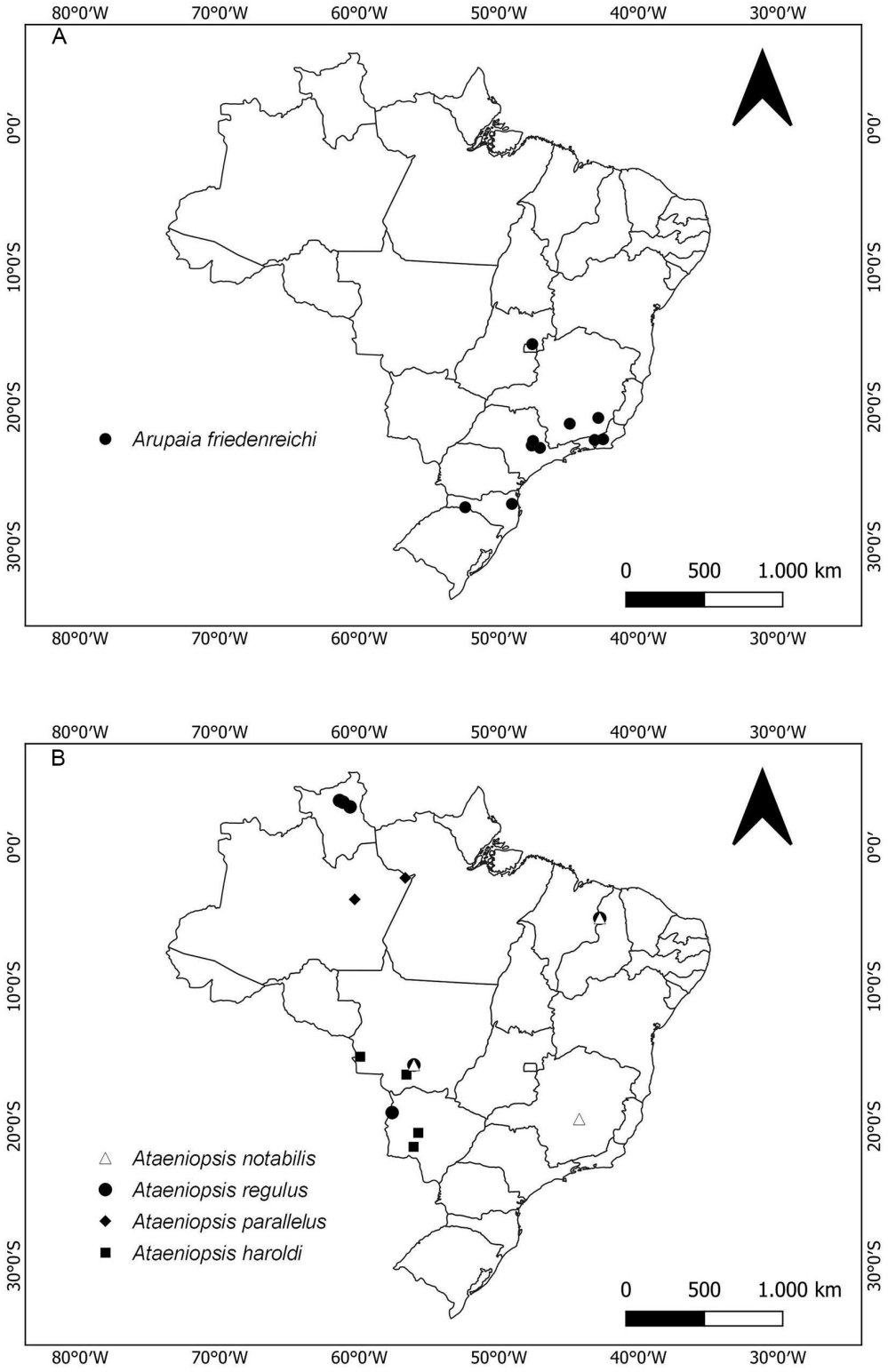

Fig. 39. Occurrence of: **A**. *Arupaia friedenreichi* (Harold, 1870). **B**. *Ataeniopsis notabilis* Petrovitz, 1973, *A. regulus* (Balthasar, 1947), *A. parallelus* (Petrovitz, 1961), *A. haroldi* (Steinheil & Stroblel, 1872).

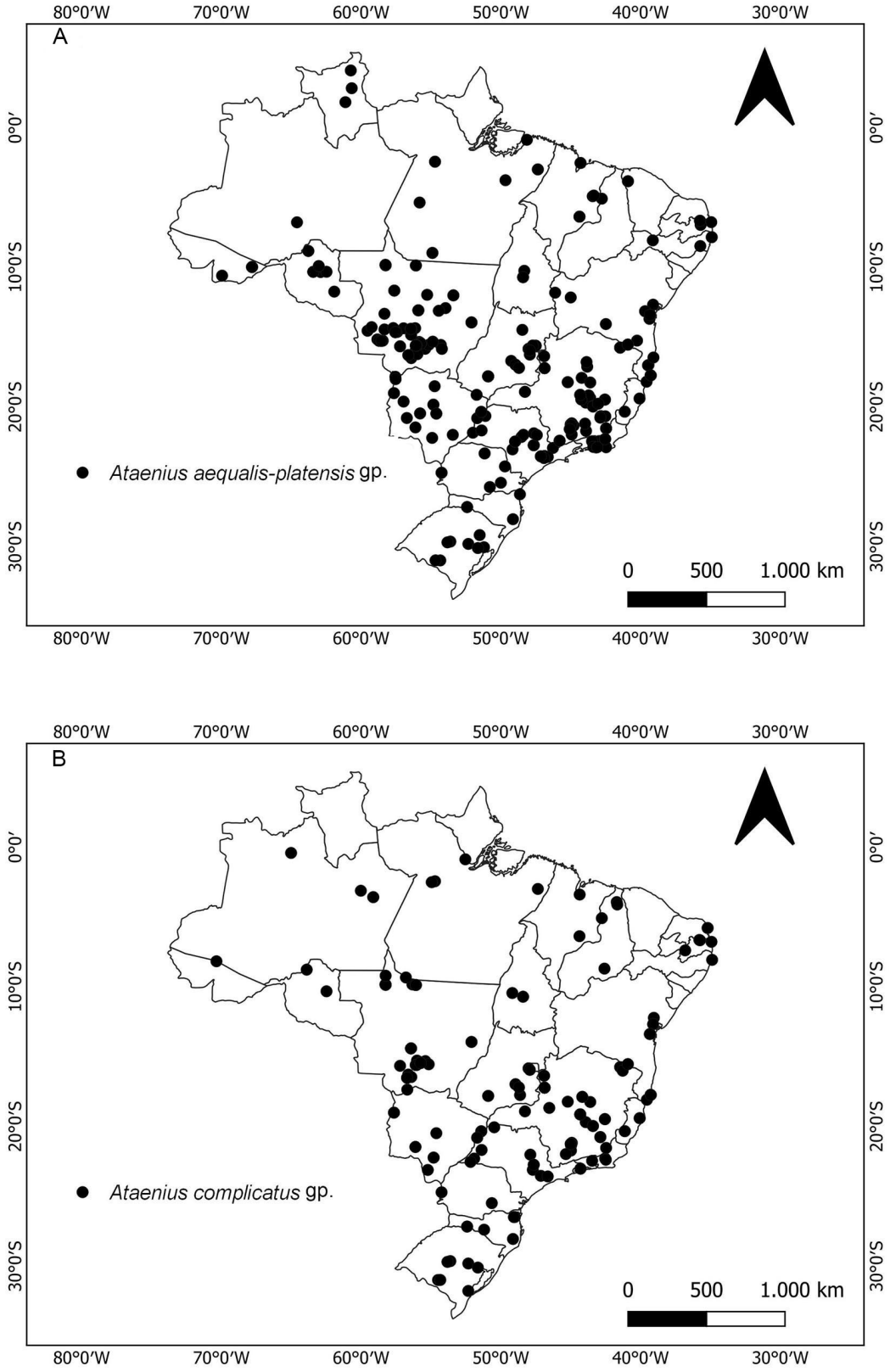

Fig. 40. Occurrence of: **A**. *Ataenius aequalis-platensis* group. **B**. *A. complicatus* group.

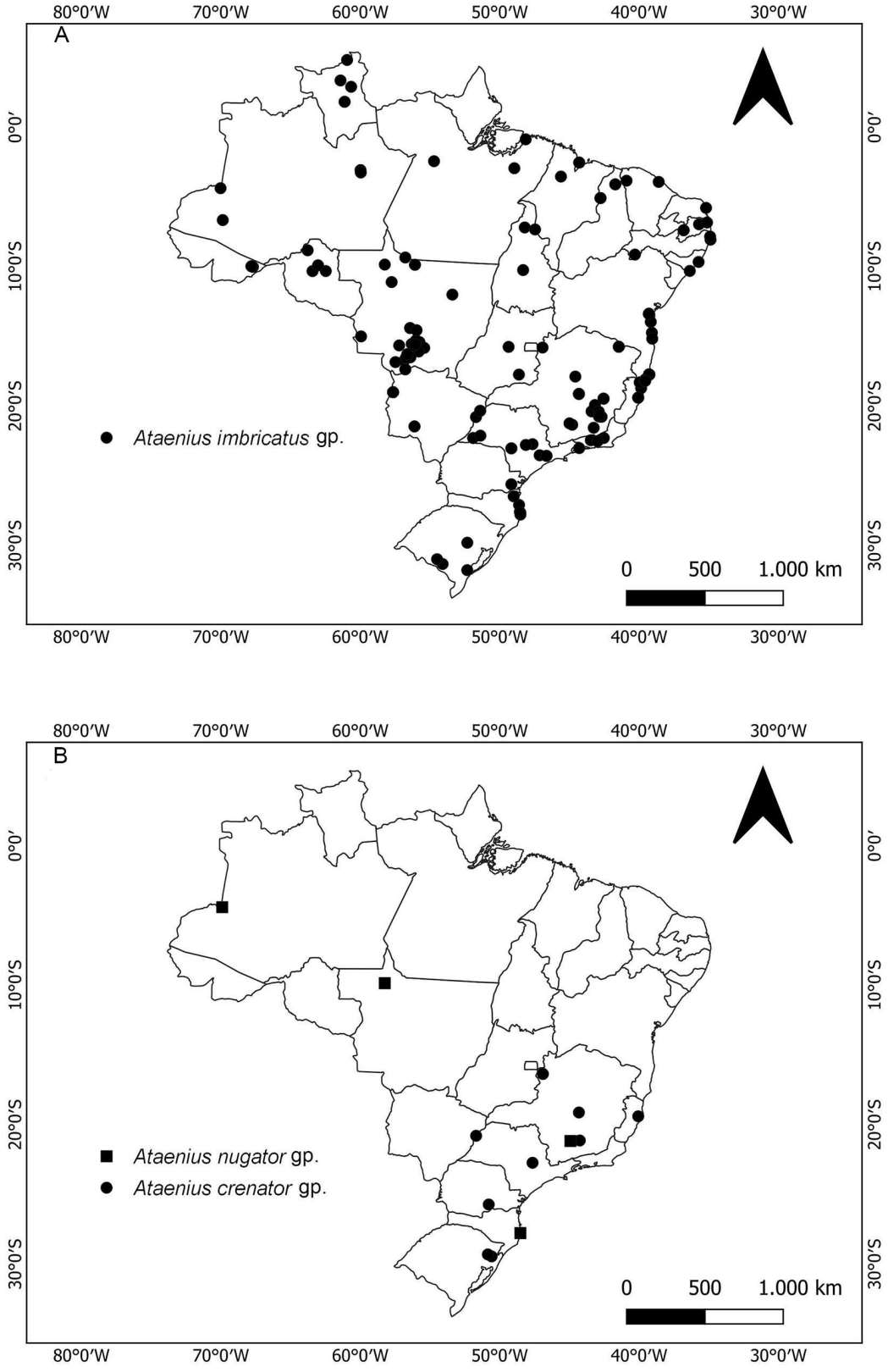

Fig. 41. Occurrence of: **A**. *Ataenius imbricatus* group. **B**. *A. crenator* group, *A. nugator* group.

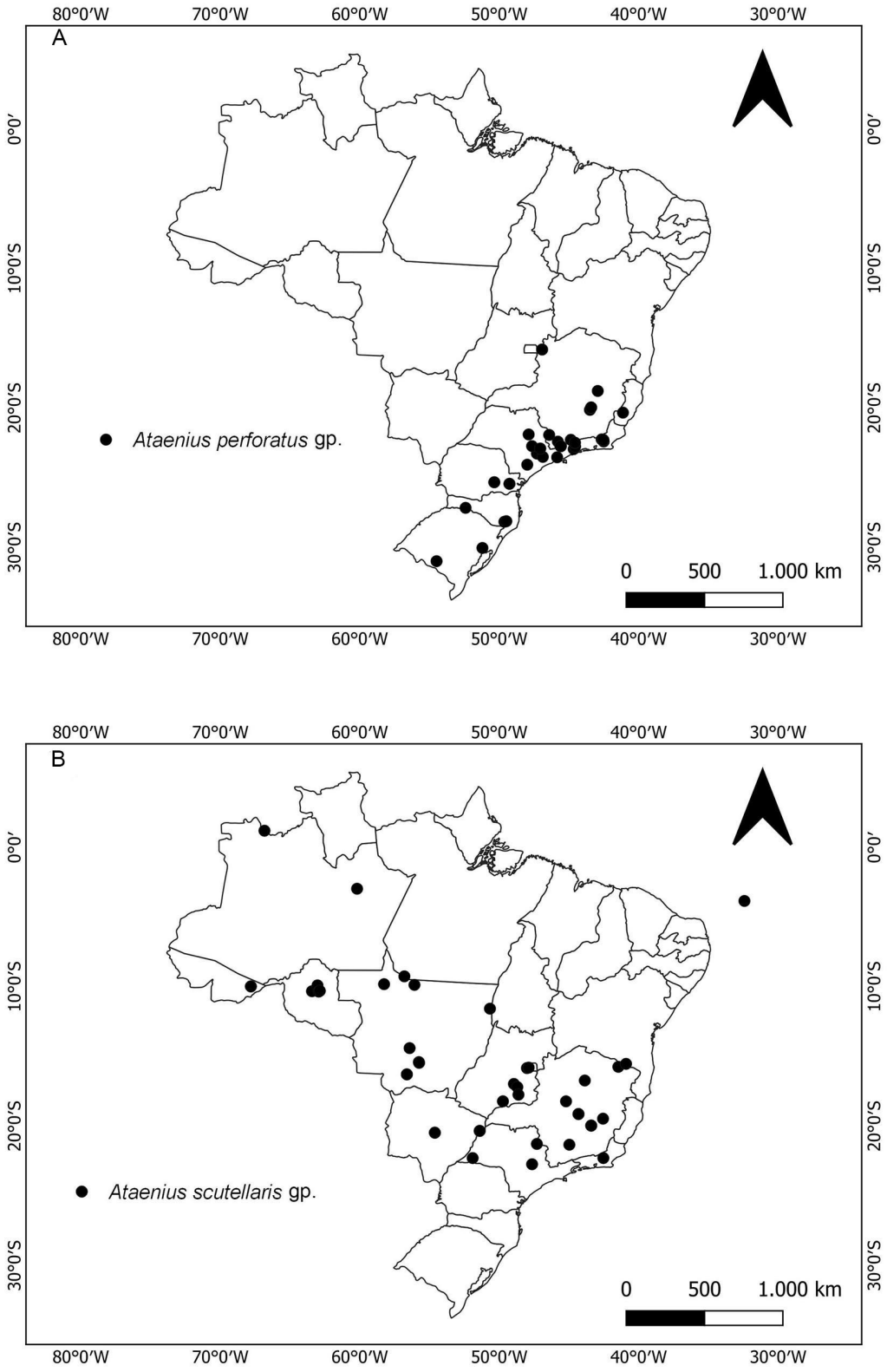

Fig. 42. Occurrence of: **A**. *Ataenius perforatus* group. **B**. *A. scutellaris* group (dot outside Brazil represents Fernando de Noronha Island).

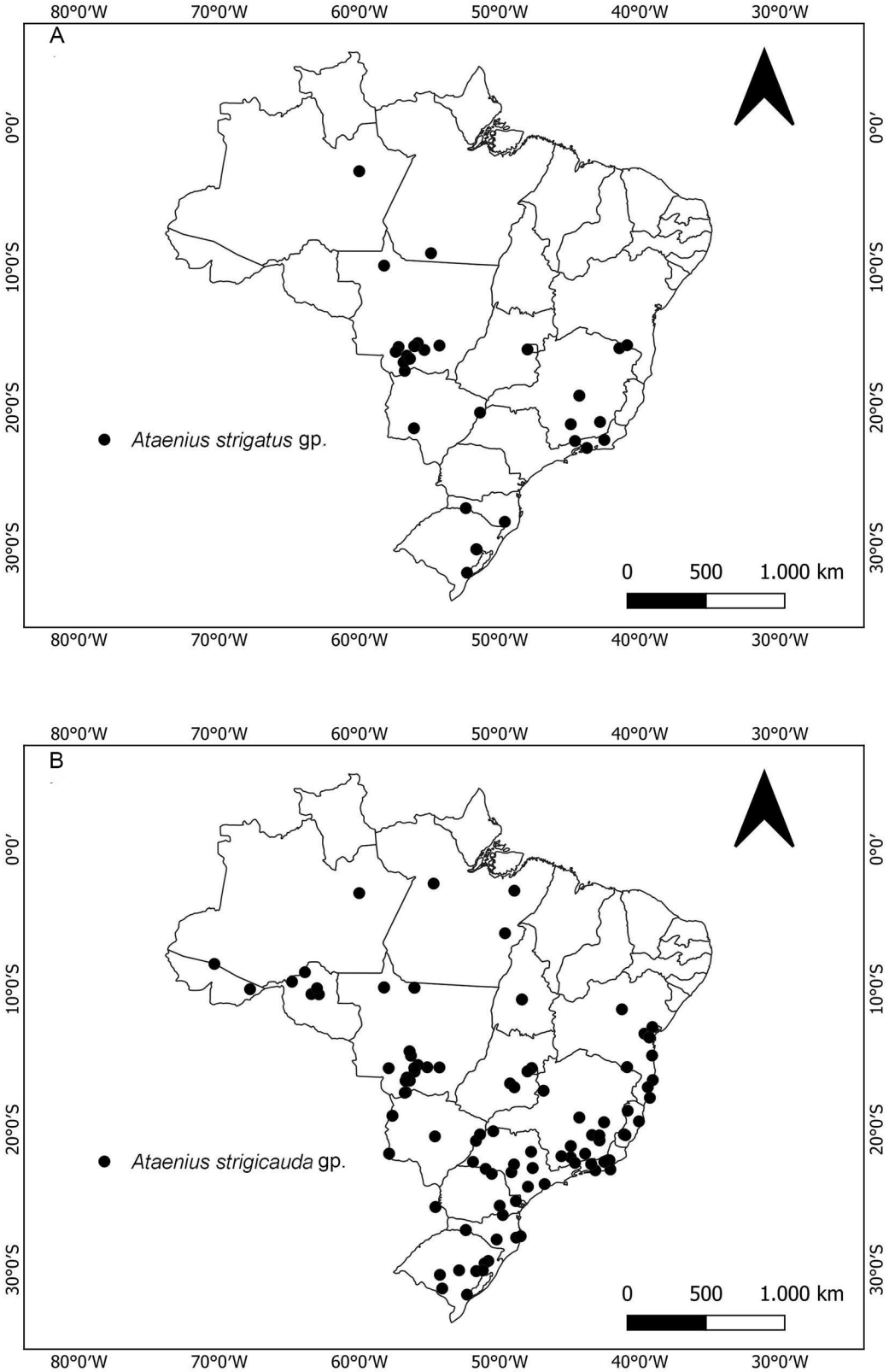

Fig. 43. Distribution of: **A**. *Ataenius strigatus* group. **B**. *A. strigicauda* group.

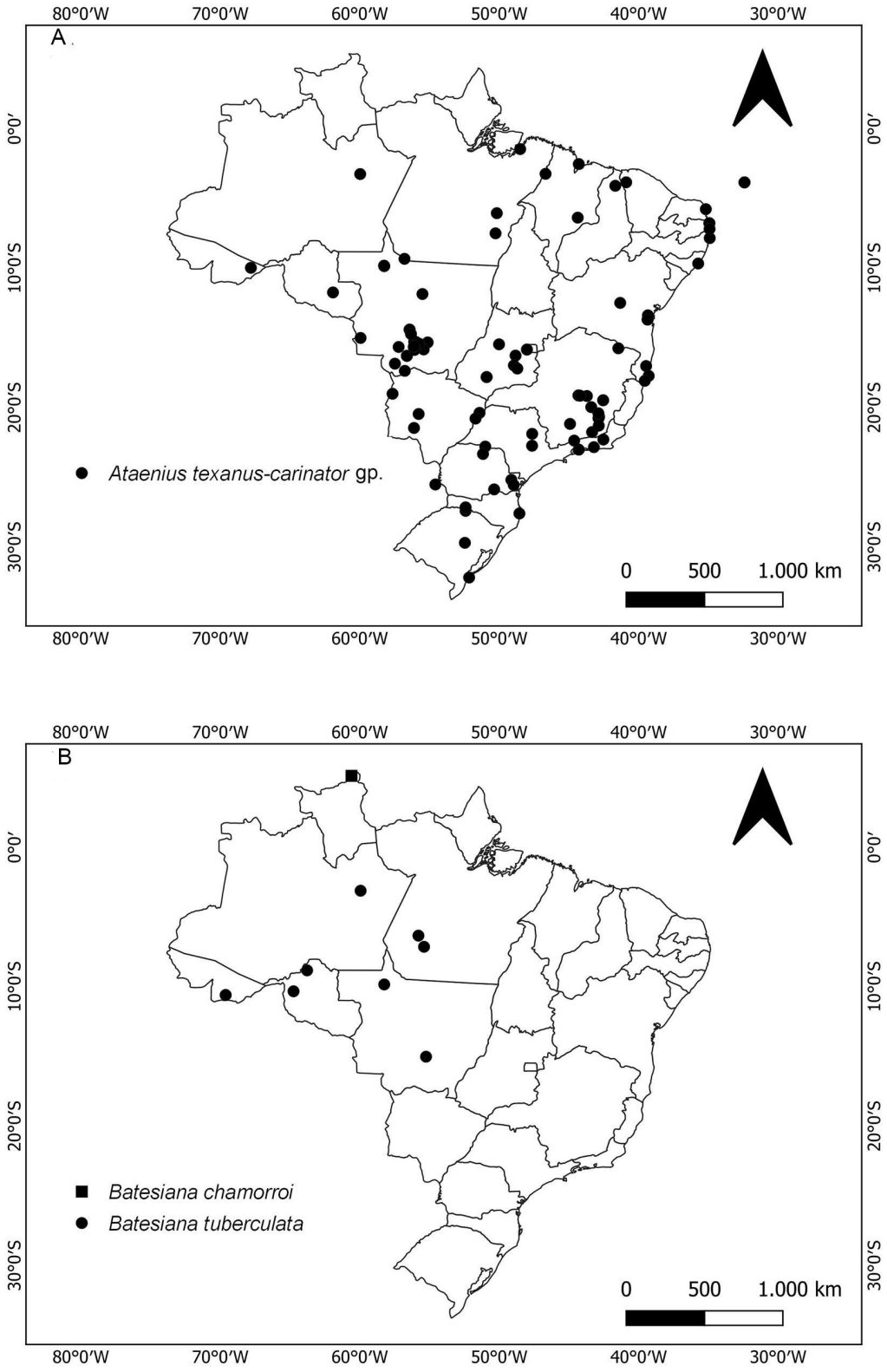

Fig. 44. Distribution of: **A**. *Ataenius texanus-carinator* group (dot outside Brazil represents Fernando de Noronha island). **B**. *Batesiana chamorroi* Skelley & Vaz-de-Mello, 2022, *B. tuberculata* Bates, 1887.

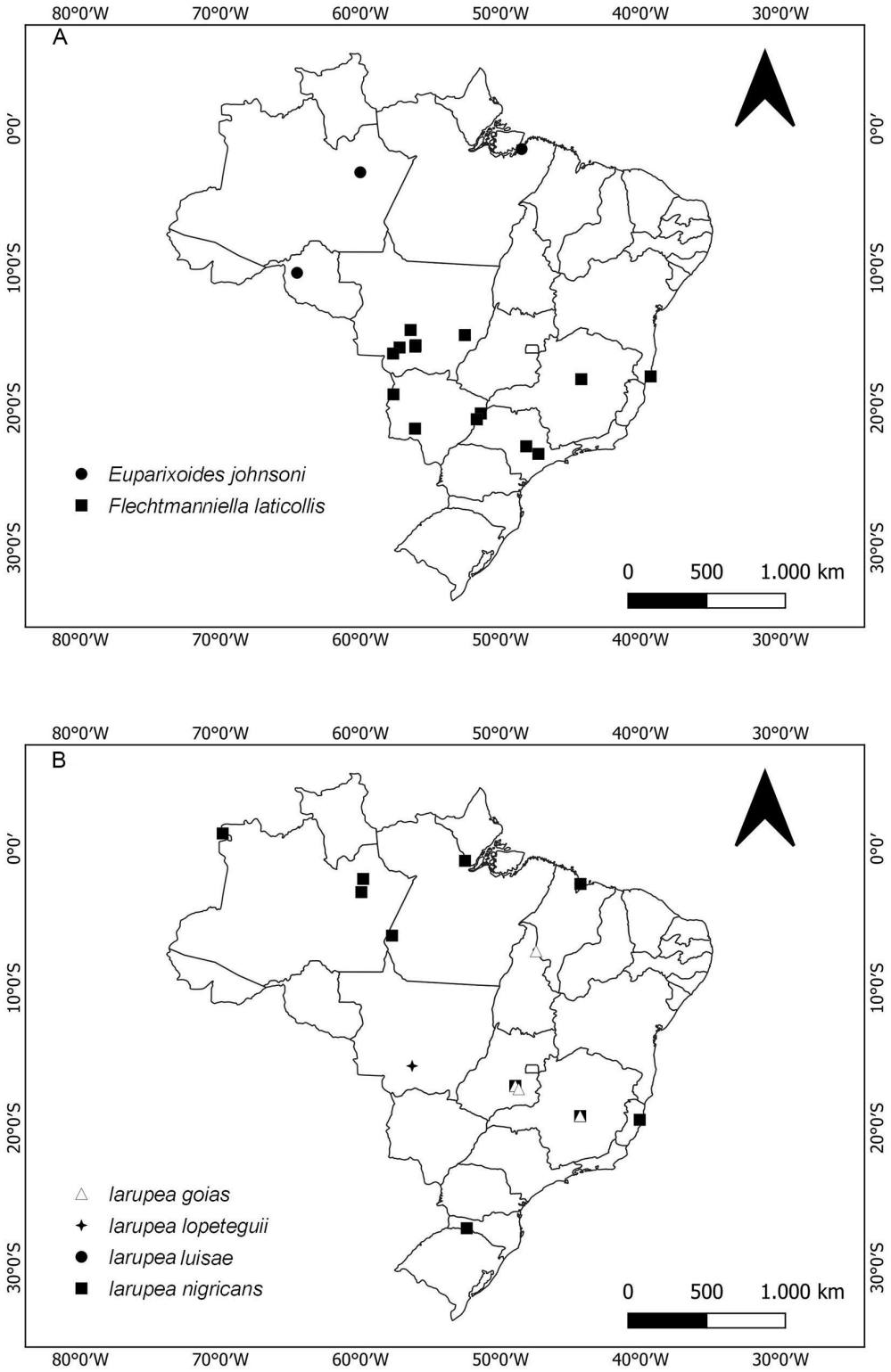

Fig. 45. Distribution of: **A**. *Euparixoides johnsoni* Stebnicka, 1998, *Flechtmanniella laticollis* (Petrovitz, 1973). **B**. *Iarupea goias* Stebnicka, 2007, *I. lopeteguii* Martínez, 1953, *I. luisae* Stebnicka, 2007, *I. nigricans* (Westwood, 1847).

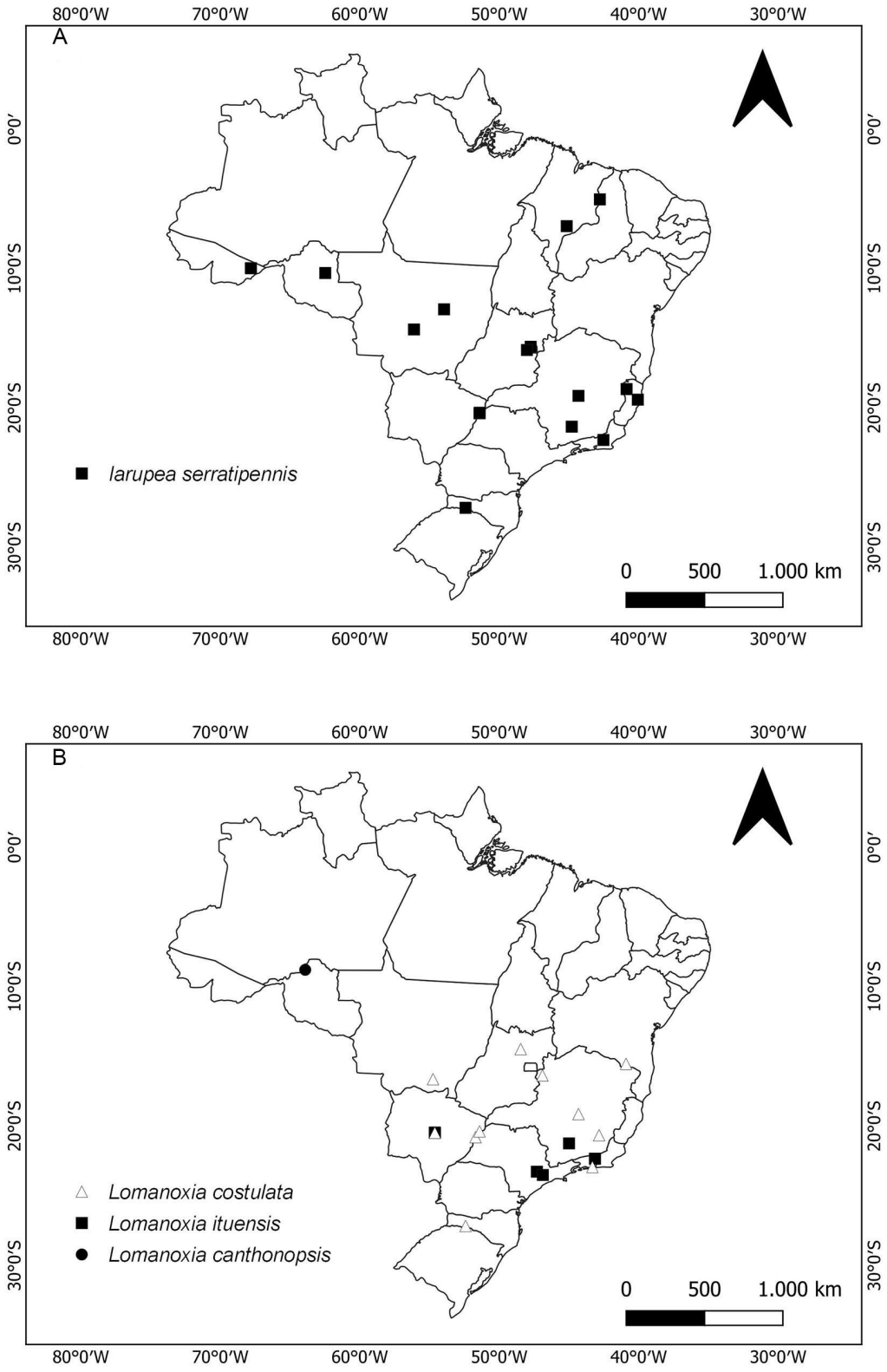

Fig. 46. Distribution of: **A**. *Iarupea serratipennis* (Petrovitz, 1973). **B**. *Lomanoxia costulata* (Harold, 1867), *L. ituensis* Stebnicka, 1999, *L. canthonopsis* Skelley & Howden, 2003.

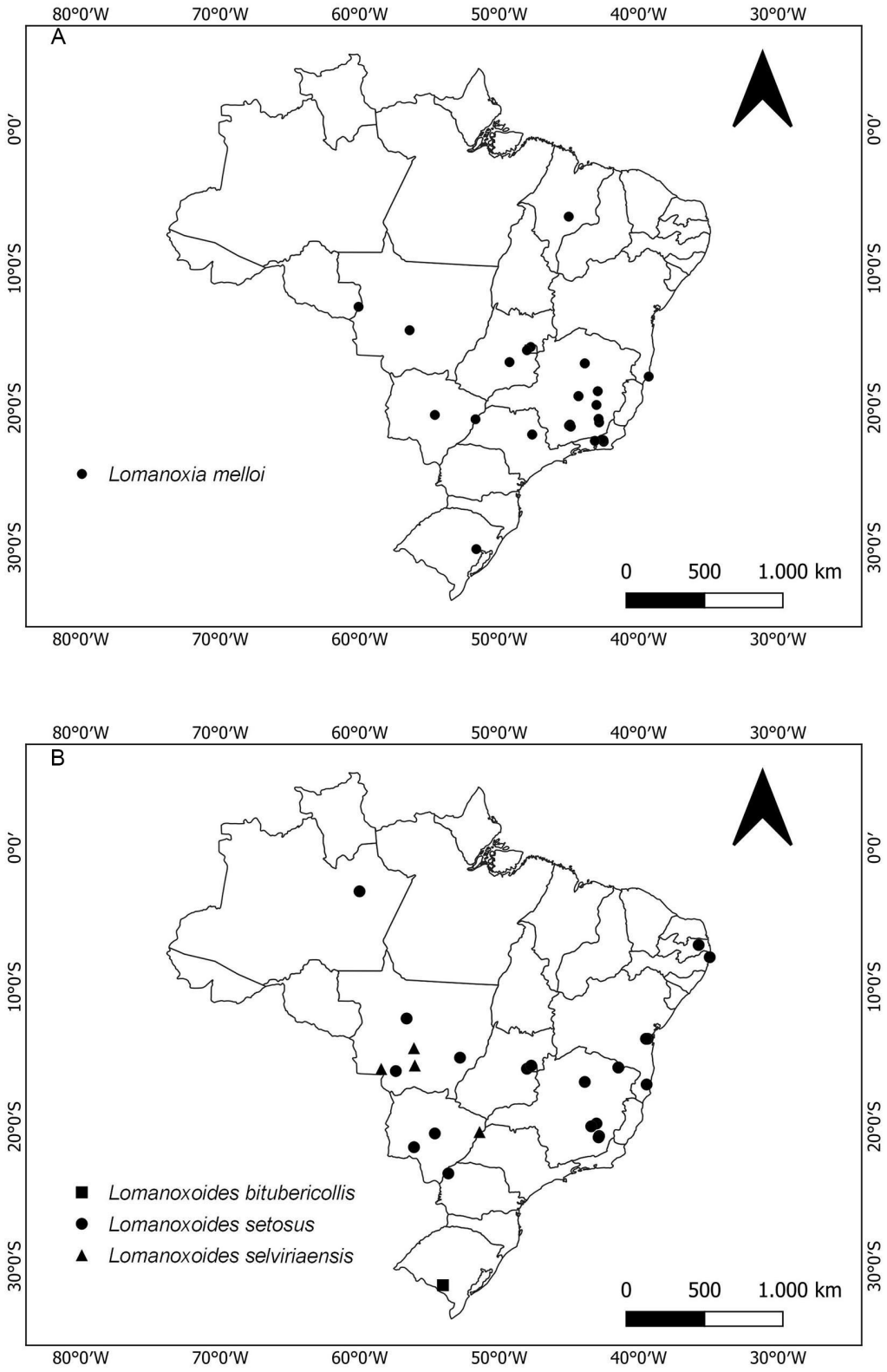

Fig. 47. Distribution of: **A**. *Lomanoxia melloi* Stebnicka, 1999. **B**. *Lomanoxoides bitubericollis* (Schmidt, 1909), *Lomanoxoides setosus* (Balthasar, 1941), *Lomanoxoides selviriaensis* Stebnicka, 1999.

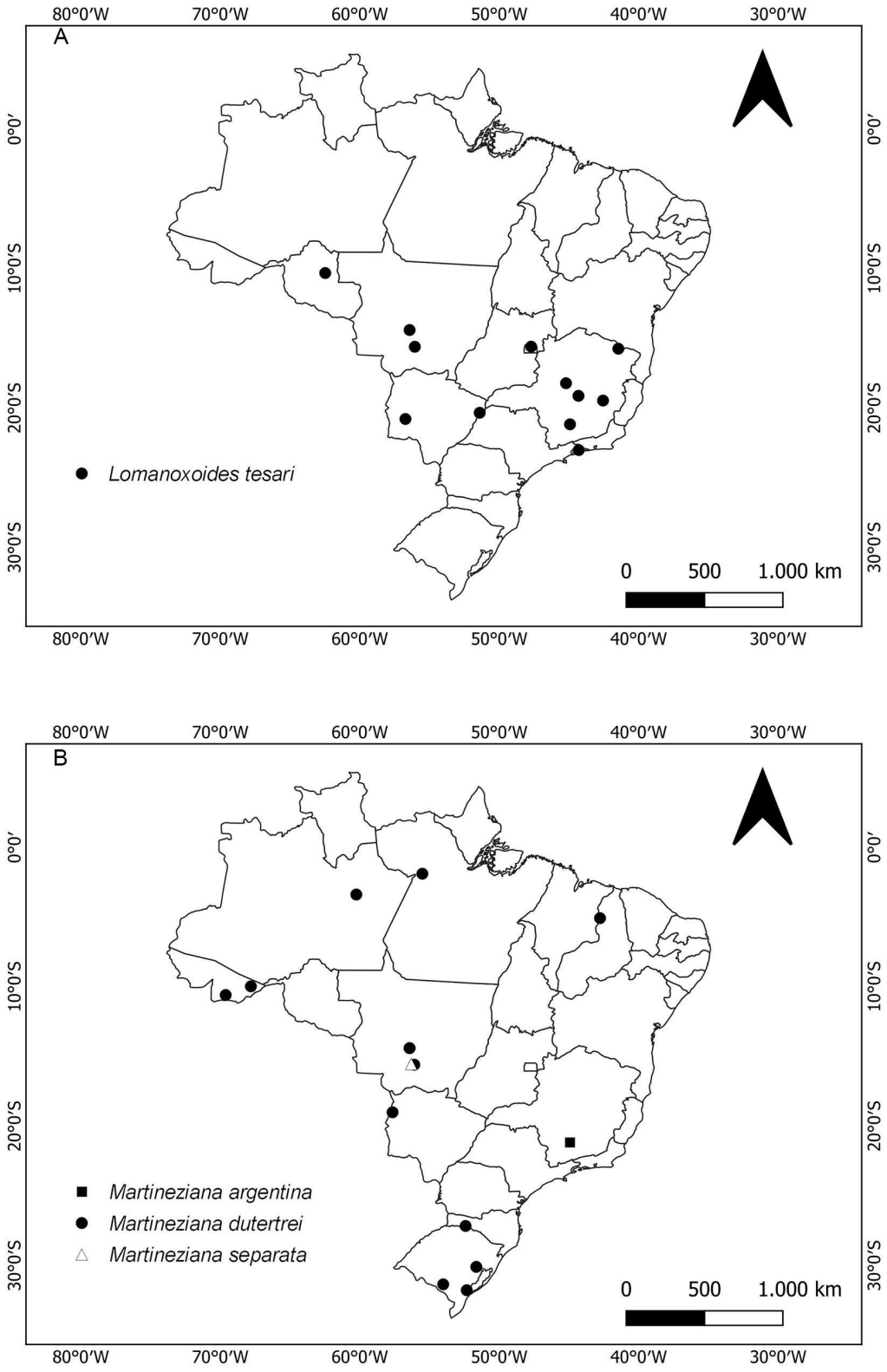

Fig. 48. Distribution of: **A**. *Lomanoxoides tesari* (Balthasar, 1963). **B**. *Martineziana argentina* (Harold, 1867), *M. dutertrei* (Chalumeau, 1983), *M. separata* (Schmidt, 1909).

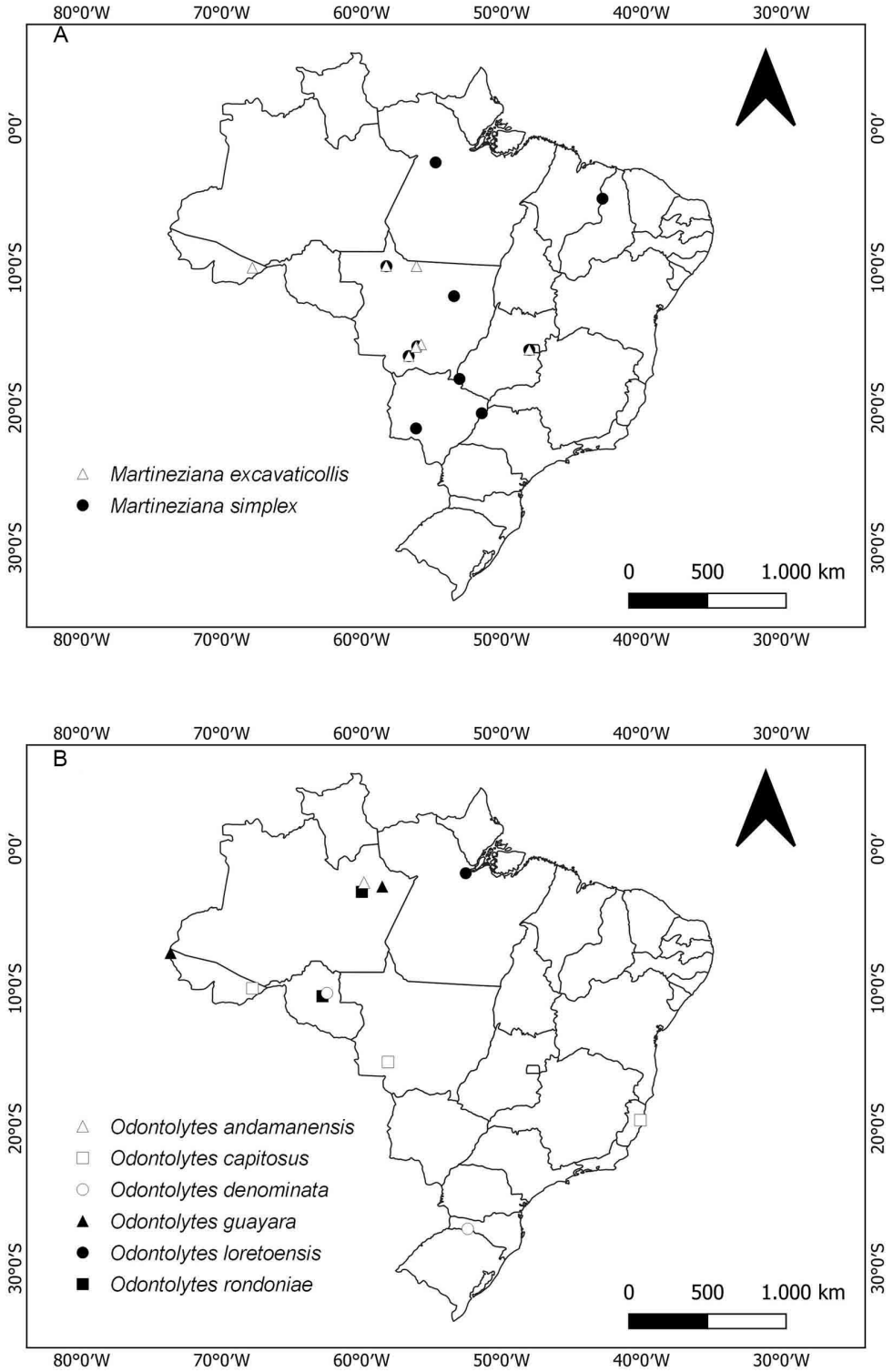

Fig. 49. Distribution of: **A**. *Martineziana excavaticollis* (Blanchard, 1843), *M. simplex* (Balthasar, 1963). **B**. *Odontolytes andamanensis* Kozhantshikov, 1916, *O. capitosus* (Harold, 1867), *O. denominata* (Chevrolat, 1864), *O. guayara* (Stebnicka, 2002), *O. loretoensis* (Stebnicka, 2002), *O. rondoniae* (Stebnicka, 2002).

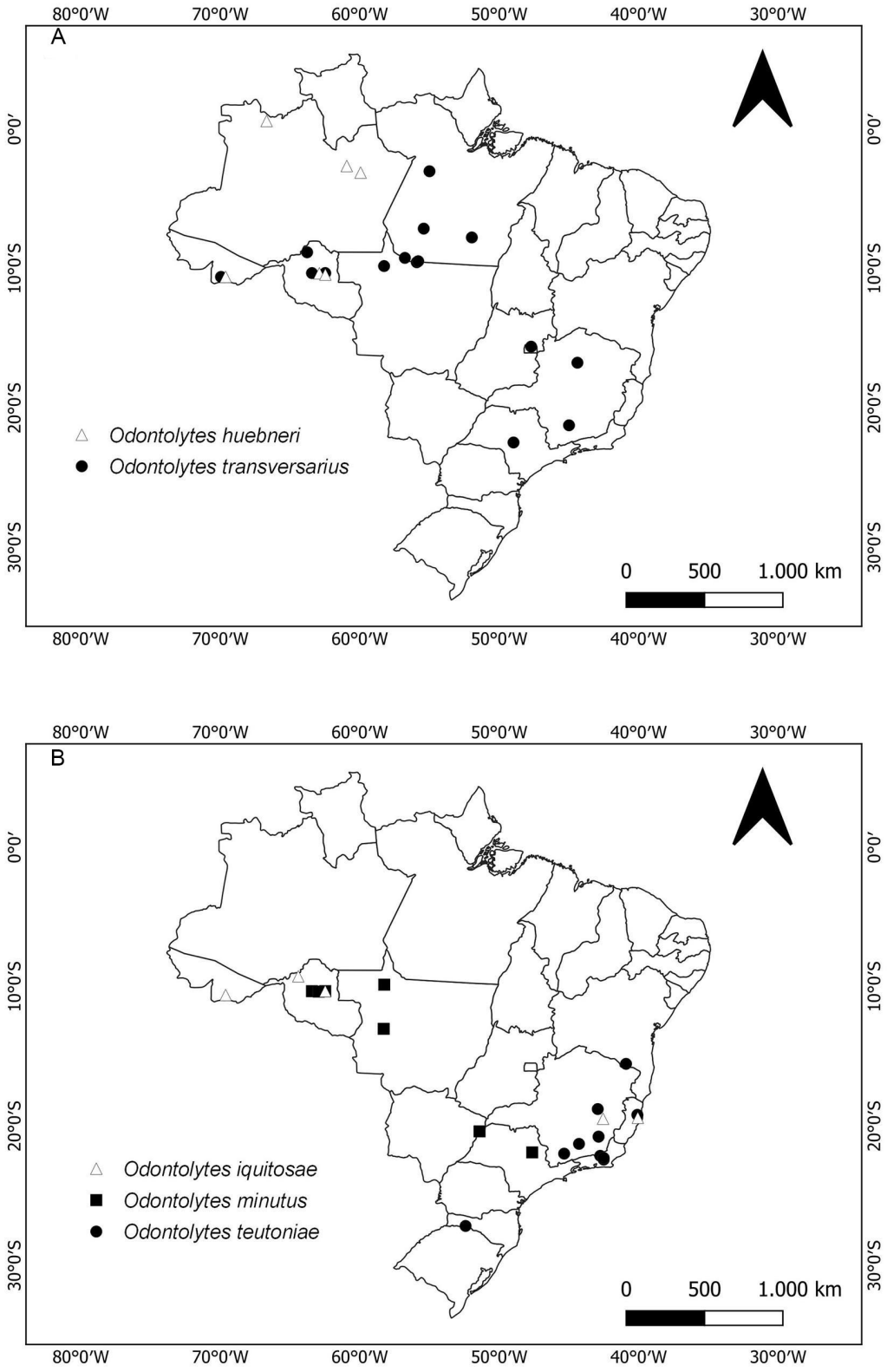

Fig. 50. Distribution of: **A**. *Odontolytes huebneri* (Petrovitz, 1970), *O. transversarius* (Schmidt, 1909). **B**. *O. iquitosae* (Stebnicka, 2002), *O. minutus* (Petrovitz, 1973), *O. teutoniae* (Stebnicka, 2002).

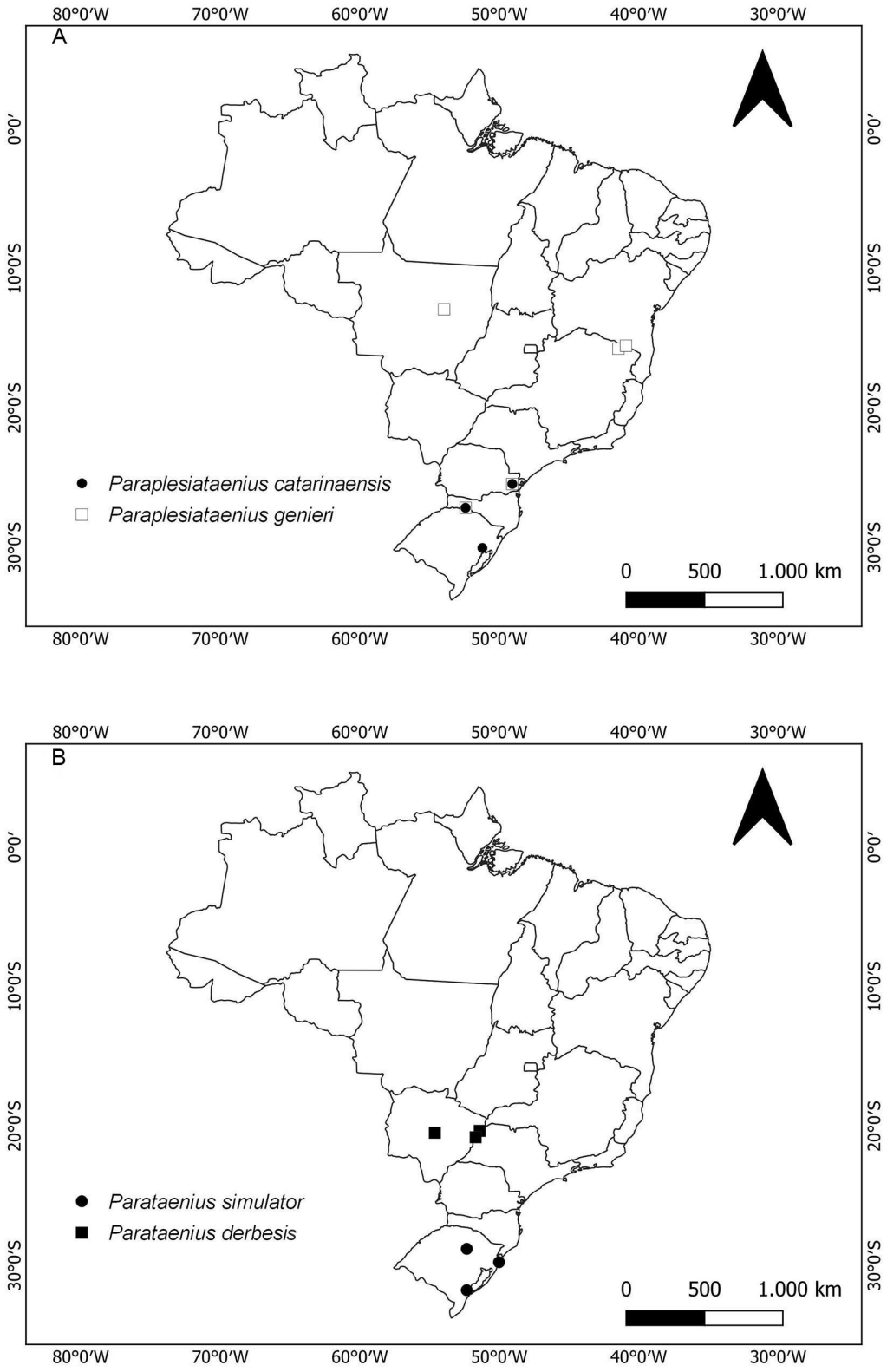

Fig. 51. Distribution of: **A**. *Paraplesiataenius catarinaensis* Stebnicka, 2003, *Paraplesiataenius genieri* Stebnicka, 2003. **B**. *Parataenius simulator* (Harold, 1868), *Parataenius derbesis* (Harold, 1868).

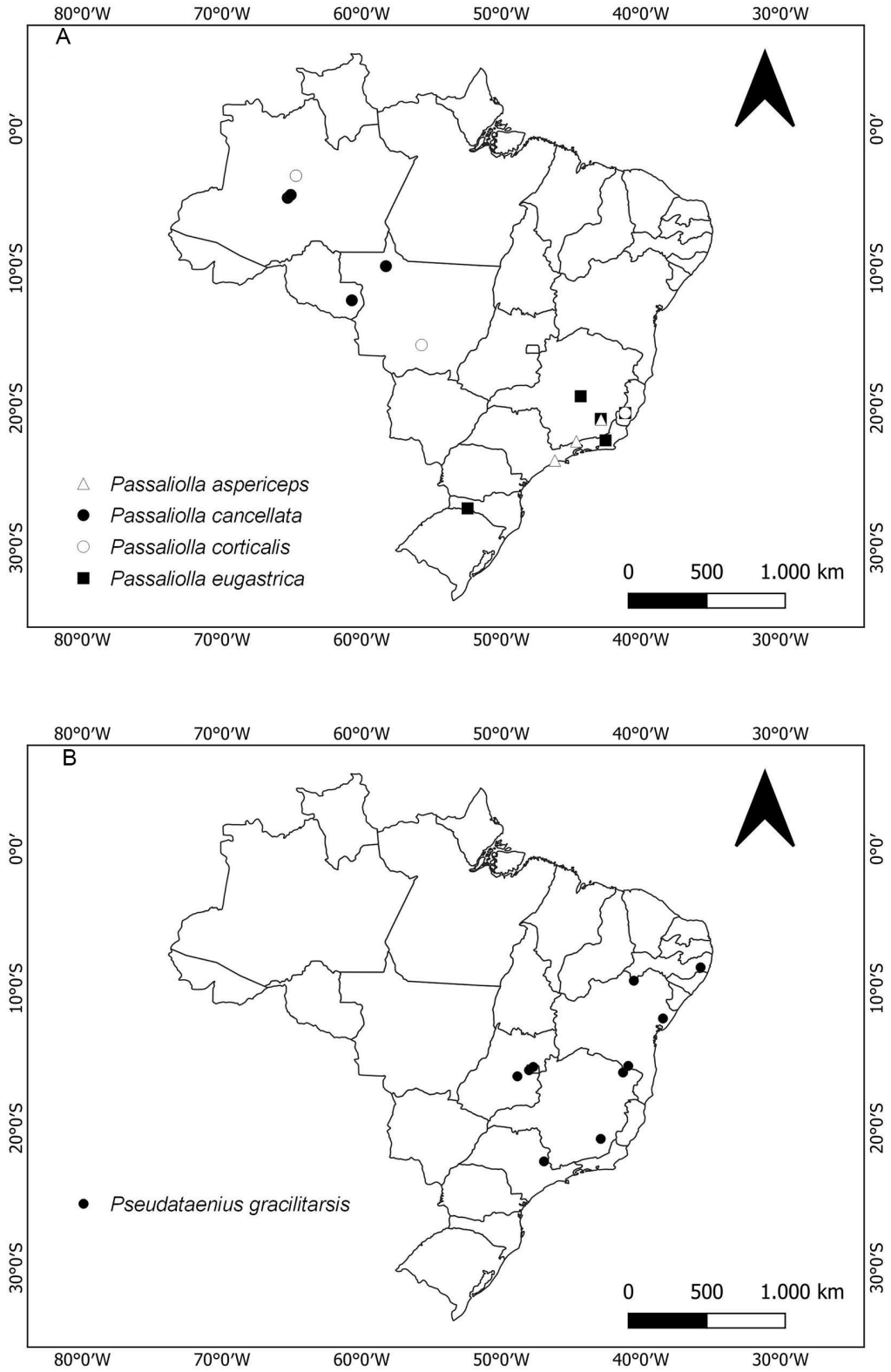

Fig. 52. Distribution of: **A**. *Passaliolla aspericeps* (Harold, 1896), *P. cancellata* (Bates, 1997), *P. corticalis* (Bates, 1997), *P. eugastrica* (Harold, 1869). **B**. *Pseudataenius gracilitarsis* (Petrovitz, 1973).

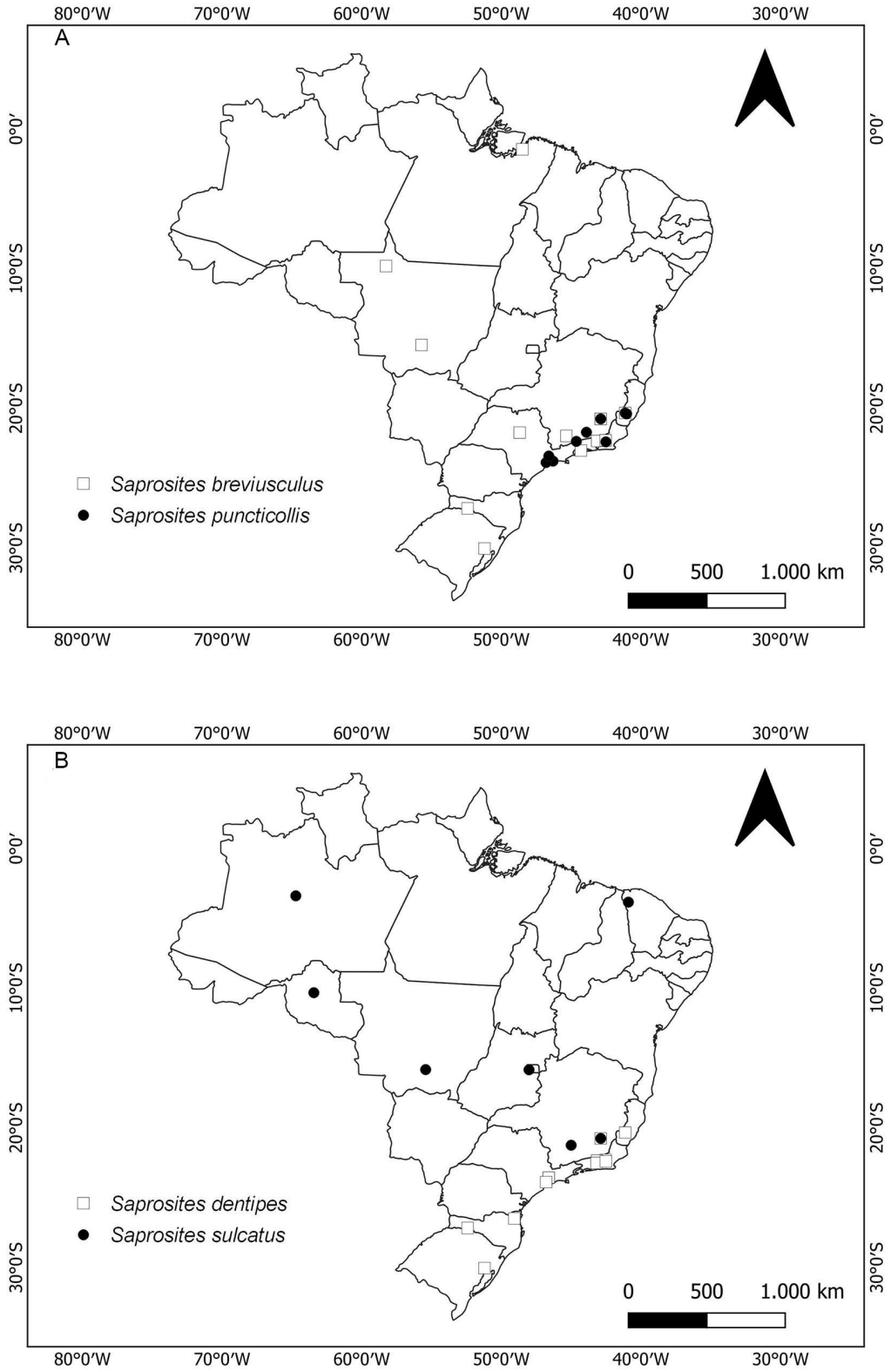

Fig. 53. Distribution of: **A**. *Saprosites breviusculus* Harold, 1867, *S. puncticollis* Harold, 1867. **B**. *S. dentipes* Harold, 1867, *S. sulcatus* Harold, 1867.

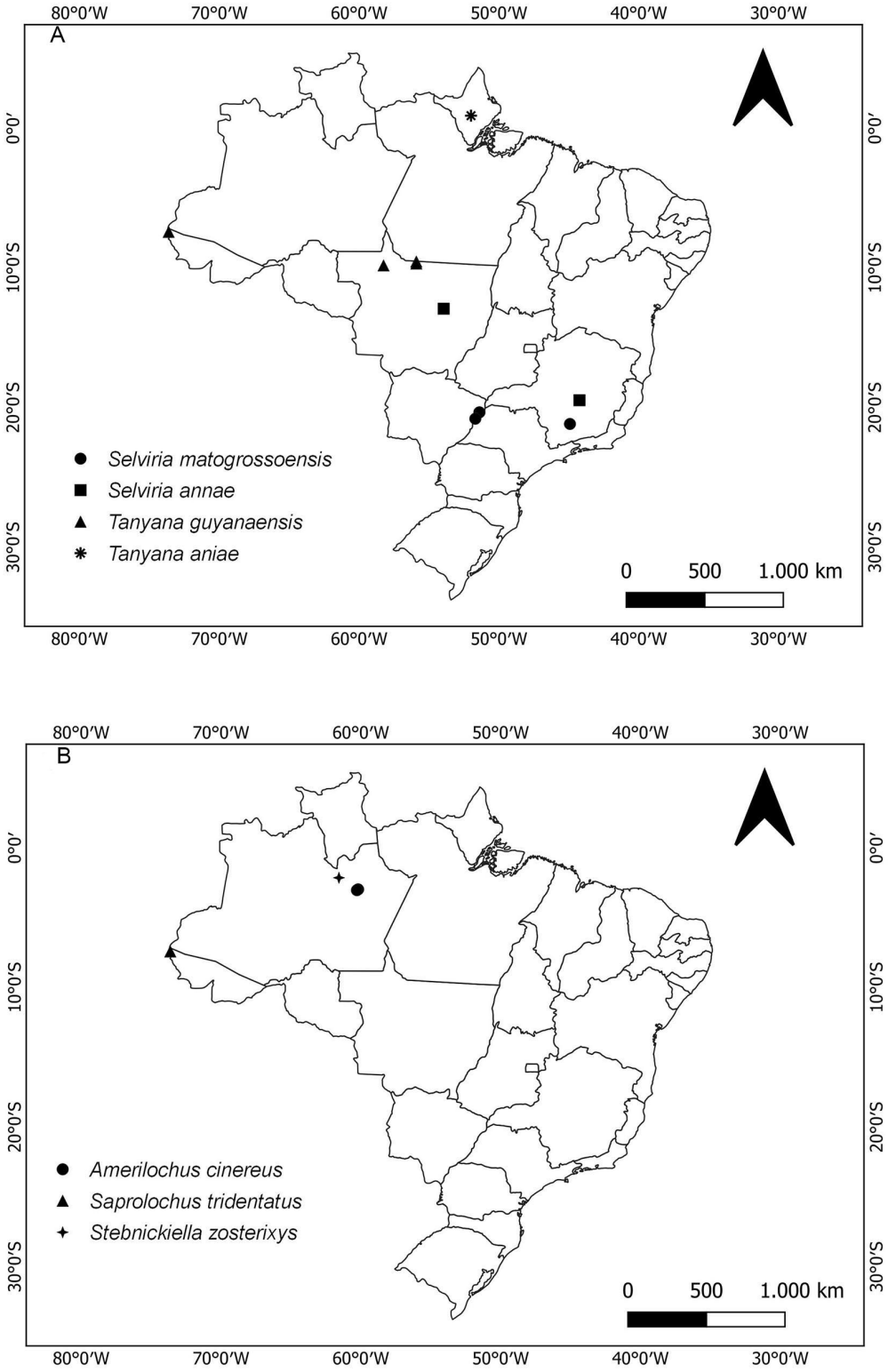

Fig. 54. Distribution of: **A**. *Selviria matogrossoensis* Stebnicka, 1999, *S. annae* Stebnicka, 2005, *Tanyana guyanaensis* (Stebnicka, 2003), *T. aniae* Minkina, 2022. **B**. *Amerilochus cinereus* Skelley, 2007, *Saprolochus tridentatus* Skelley, 2007, *Stebnickiella zosterixys* Skelley, 2007.

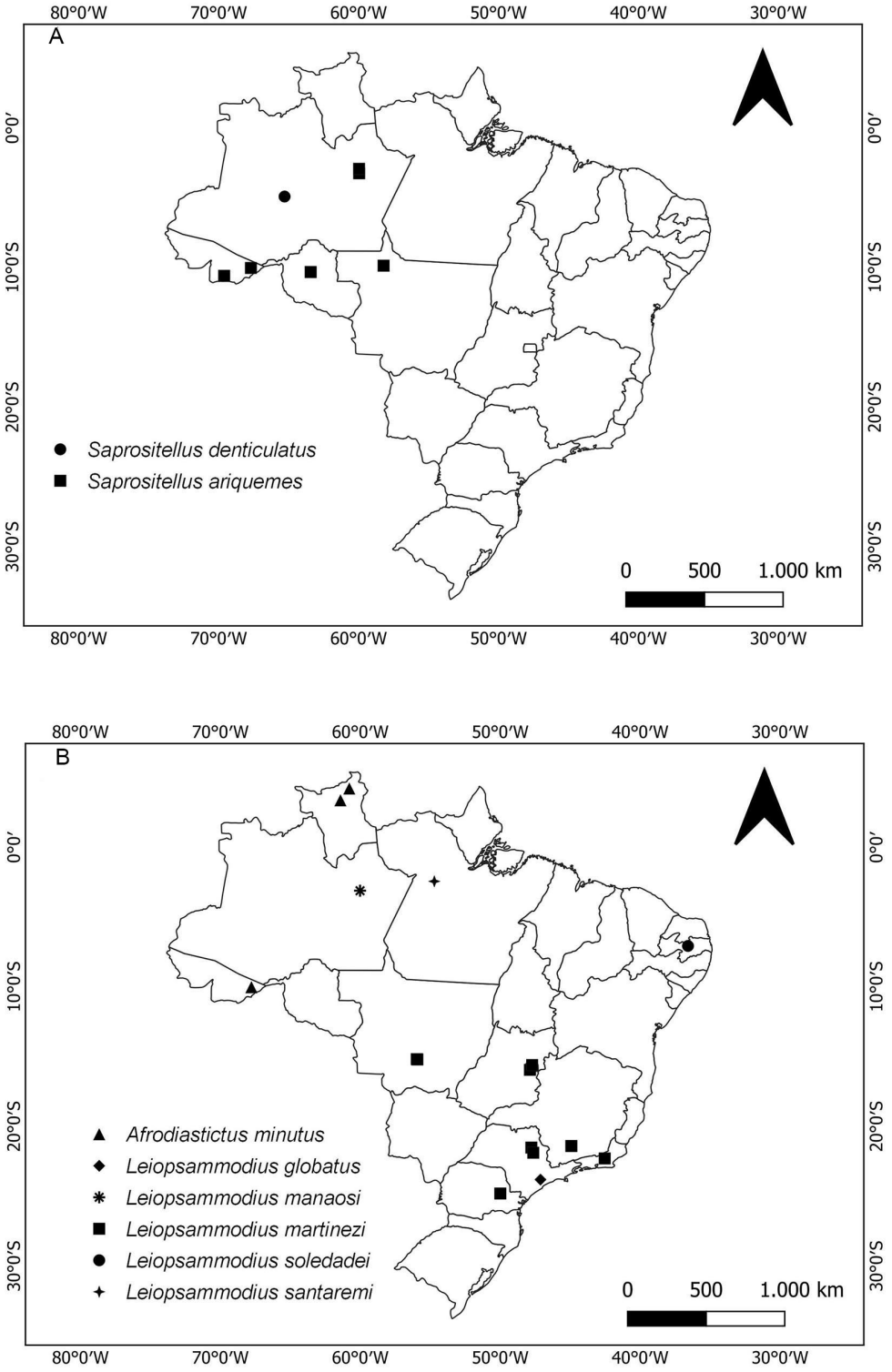

Fig. 55. Distribution of: **A**. *Saprositellus denticulatus* Balthasar, 1967, *S. ariquemes* Stebnicka, 2003. **B**. *Afrodiastictus minutus* (Petrovitz, 1970), *Leiopsammodius globatus* (Petrovitz, 1972), *L. manaosi* (Cartwright, 1955), *L. martinezi* (Cartwright, 1955), *L. soledadei* (Cartwright, 1955), *L. santaremi* (Cartwright, 1955).

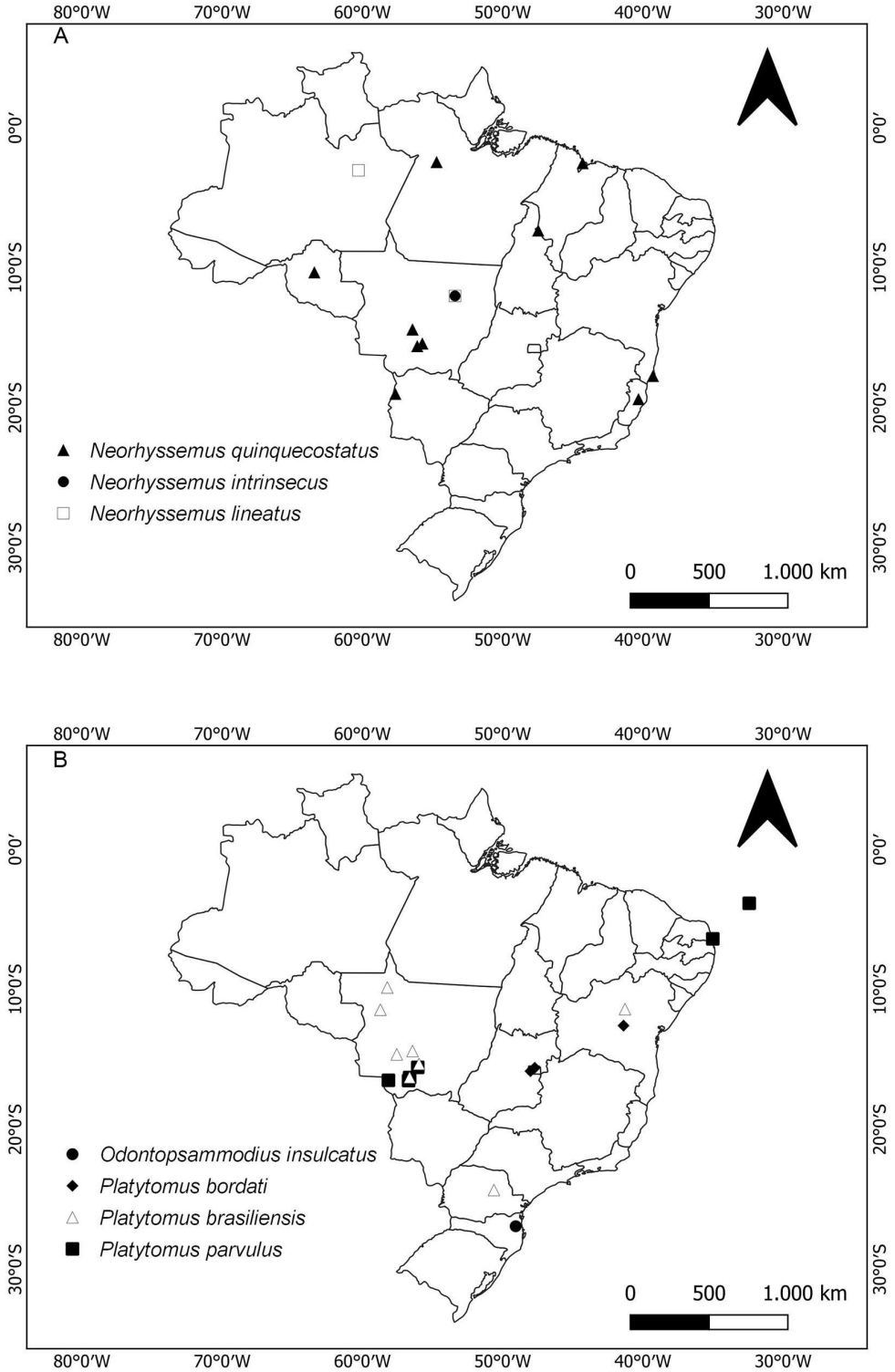

Fig. 56. Distribution of: **A**. *Neorhyssemus quinquecostatus* (Cartwright, 1955), *N. intrinsecus* (Gordon & Cartwright, 1980), *N. lineatus* (Gordon & Cartwright, 1980). **B**. *Odontopsammodius insulcatus* (Schmidt, 1916), *Platytomus bordati* Rakovic, Mencl & Král, 2020, *P. brasiliensis* Rakovic, Mencl & Král, 2020, *P. parvulus* (Chevrolat, 1864) (dot outside Brazil represents Fernando de Noronha Island).

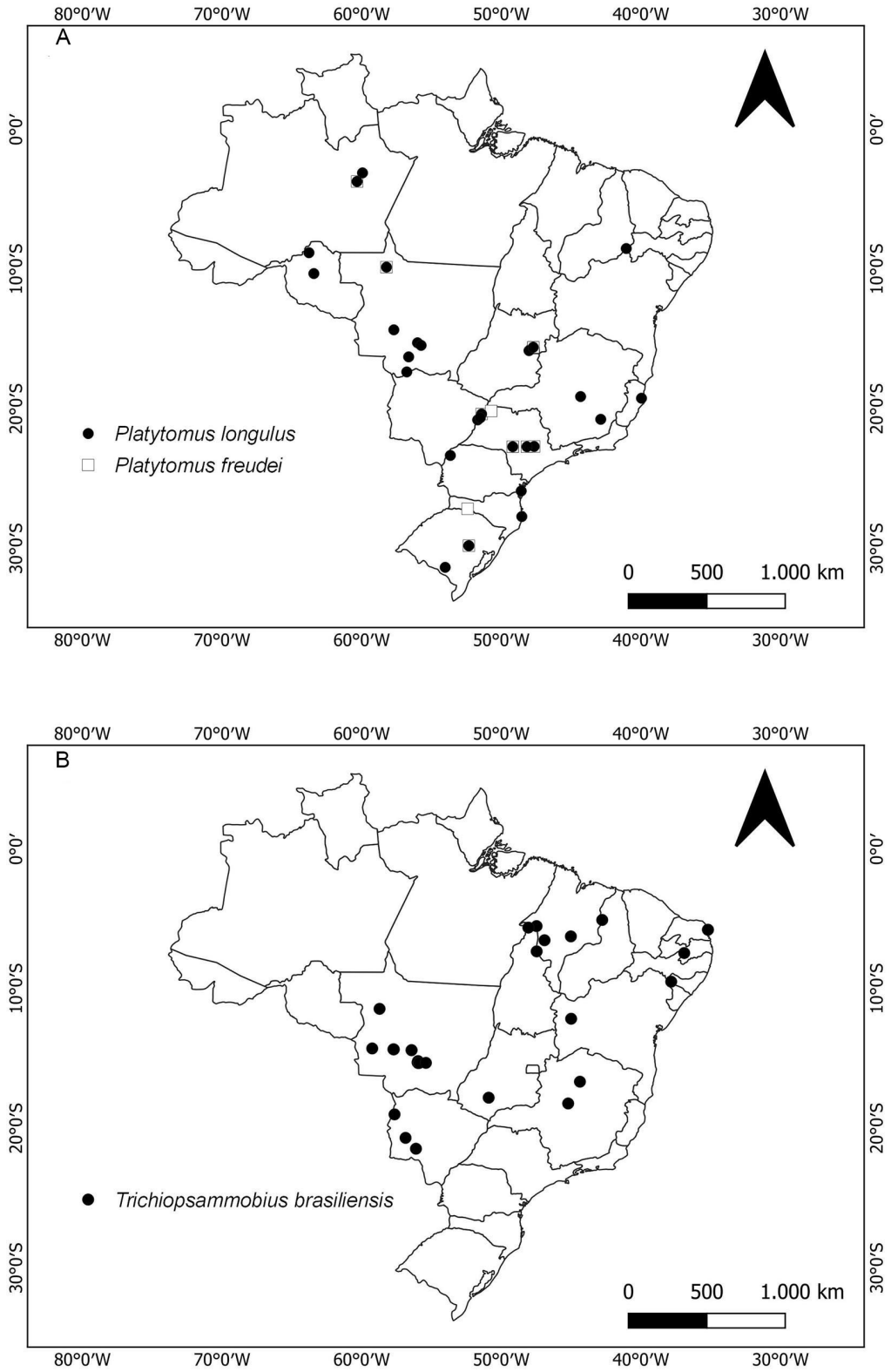

Fig. 57. Distribution of: **A**. *Platytomus longulus* (Cartwright, 1948), *P. freudei* (Balthasar, 1960). **B**. *Trichiopsammobius brasiliensis* Petrovitz, 1963.

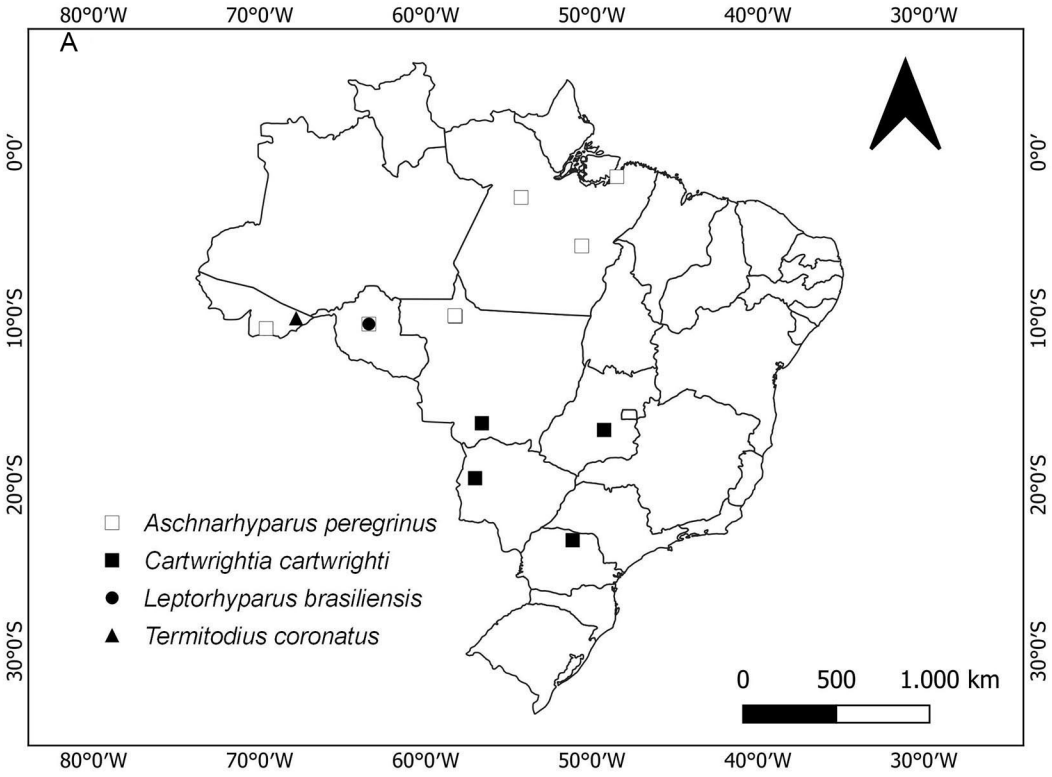

Fig. 58. Distribution of *Aschnarhyparus peregrinus* (Hinton, 1934), *Cartwrightia cartwrighti* Cartwright, 1967, *Leptorhyparus brasiliensis* Minkina, 2020, *Termitodius coronatus* Wasmann, 1894.

Discussion

Before the present work, the fauna of Aphodiinae in Brazil was comprised of 148 species distributed across 40 genera (Minkina 2020; Gama & Vaz-de-Mello 2024). Here, three genera and 15 species are newly reported for Brazil and two species and one genus are tentatively considered new records for Brazil. As it stands, the Aphodiinae subfamily in Brazil comprises 43 genera and 164 species. The know distribution of many species has been improved.

Three genera are newly recorded for Brazil: *Amerilochus*, *Saprolochus* and *Stebnickiella. Amerilochus* and *Stebnickiella* are monotypic genera originally described from Peru (Skelley 2007; Minkina 2022), newly recorded from two localities near Manaus, Amazonas. *Saprolochus* was described for two species with a peculiar morphology found in the New World, soon after in the same year, Skelley (2007d) described two new species: *Saprolochus tambopatae* and *Saprolochus tridentatus*. The known distribution of *Saprolochus tridentatus* was, until now, restricted to Peru and Bolivia. Here, the known distribution of this species includes Brazil, with its first record for the country being in National Park Serra do Divisor in Acre State.

Twelve other species are also recorded for the first time from Brazil: *Aidophus kolbei*, *Ataeniopsis haroldi*, *Batesiana chamorroi*, *Blackburneus thomasi*, *Blackburneus surinamensis*, *Iarupea lopeteguii*, *Labarrus lividus*, *Lomanoxia canthonopsis*, *Lomanoxoides bitubericollis*, *Odontolytes guayara*, *Odontolytes loretoensis* and *Tanyana guyanaensis*. Two species are tentatively considered as new

records: *Ataenius bolivarensis* and *Cartwrightia cartwrighti. Cartwrightia cartwrighti* has been recorded for Brazil by the Catálogo Taxonômico da Fauna do Brasil (CTFB) (Gama & Vaz-de-Mello 2024) but no previous record of this species in Brazil was found in literature.

Ataenius bolivarensis was described based on the holotype and 17 paratypes, but only six paratypes were reported in the original description (Stebnicka 2007c). We found 10 specimens with paratype labels and we believe these are the specimens from Brazil mentioned in the Variation section by Stebnicka (2007c) but were not listed in hers Material examined. Strangely, this species was considered restricted to Venezuela by Stebnicka (2007b). We believe these specimens are part of the type series since specimens from Brazil are mentioned in the original description. Unfortunately, one paratype is still missing and we do not know where it might have been deposited.

***Platytomus longulus* complex of species**

The genus *Platytomus* in Brazil is currently represented by five species (Rakovic *et al.* 2020a, 2020b). Three of these, *P. brasiliensis*, *P. bordati* and *P. parvulus*, are relatively easy to determine due to their unique features. Unfortunately, this is not the case for *P. longulus* and *P. freudei.* These species are here treated as a complex of species since we could not safely distinguish them. Rakovic *et al.* (2020a) published new images of a paratype of *P. freudei* and comments on how to distinguish it from *P. longulus*. According to Rakovic, these species can be separated by the clypeal margin, which is more elevated in *P. freudei* than in *P. longulus*, the finely granulate clypeus of *P. longulus* and by the color of the lateral elytral margins which are darkened in *P. longulus*. But the majority of the analyzed specimens present diagnostic characters of both species. For example, the clearly elevated clypeal margins was found both with specimens with fine granules on the head and darkened lateral margin of elytra.

Using the distribution of both species to distinguish them did not help. According to Cartwright (1948), *P. longulus* occurs from Mississippi in the United States to Salto in Argentina. Cartwright (1948) designated 15 specimens, collected in Brazil, as paratypes, 14 from Três Lagoas and one from Itapura, both localities are in Mato Grosso do Sul State. *Platytomus freudei* was originally described by Balthasar (1960) with the type locality being Nova Teutônia, Santa Catarina State, Brazil. Later Rakovic *et al.* (2020a) published new sampling data of *P. freudei.* As it stands, *P. freudei* is known to occur from Santa Catarina, Brazil, to Ascensión, Bolivia. But we found specimens resembling *P. freudei* across the country, from Rio Grande do Sul State to near Manaus in the state of Amazonas. In some cases, morphotypes resembling both species were found in the same locations.

It is possible that *P. freudei* and *P. longulus* are in fact synonyms. Perhaps Balthasar did not know about *P. longulus* since there is no mention of it in the original description of *P. freudei* (Balthasar 1960), which is strange considering he discusses the differences of *P. freudei* and *P. parvulus*, another species with a wide distribution across the Americas (Cartwright 1948; Balthasar 1960). Perhaps, *P. longulus* is restricted to the Nearctic region and *P. freudei* has a much larger distribution than previously reported. Rakovic *et al.* (2020a) discussed the morphological differences between the two species but made no mention of a possible synonymy. Regardless, resolving these issues is beyond the scope of this work.

Acknowledgments

This work was developed within the scope of the Instituto Nacional de Coleoptera (INCol) an INCT (National Institute of Science and Technology) by Brazil's National Council for Scientific and Technological Development (CNPq) (408430/2024-9). ERRG was funded by the CNPq, PROTAX Master's scholarship (160572/2021-5.) FZVM was funded by CNPq (313397/2021-0 PQ1A); (431760/2018-7); (440604/2015-0); FAPEMAT/CNPq PRONEM (568005/2014); FAPEMAT (0147956/2017) and Subprojeto EECBio UFMT/Finep (01.12.0359.00). ERRG, FZVM and PES thank the Florida Department of Agriculture and Consumer Services, Division of Plant Industry, for support of

this work. We extend our thanks to Bruna Bordin for preparing the lovely illustrations used in this paper, to Lukasz Minkina for providing images of *Tanyana aniae* and *Leptorhyparus brasiliensis*, Johannes Bergsten and Anna Jerve from the NHRS for lending images of the lectotype and paralectotype of *Blackburneus laxepunctatus* and José Albertino Rafael and Marcio Oliveira from INPA for providing us additional specimens for this work.

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Supplementary files

Supp. file 1. Key to genera and species of Aphodiinae Leach, 1815 from Brazil (Portuguese).
https://doi.org/10.5852/ejt.2026.1038.3175.14117

Supp. file 2. Bibliography used as reference for compiling collecting data of species of Aphodiinae Leach, 1815 in Brazil. * indicates papers without precise collecting data within the country.
https://doi.org/10.5852/ejt.2026.1038.3175.14119