A new synonym and seventeen new distributional records in South American Cerambycidae (Coleoptera), with notes on Chlorethe scabrosa Zajciw, 1963

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Abstract. We studied 18 cerambycid beetle species native to South America. Seventeen represent new state records in Brazil. Particularly, Chlorethe scabrosa Zajciw, 1963 is newly reported for the state of Rio de Janeiro with exclusion of C. brachyptera Zajciw, 1963. The Brazilian state of the type locality of Dufauxia guaicurana Lane, 1955 is fixed. Pirangoclytus mendosus (Galileo & Martins, 1996) is synonymized with P. mniszechii (Chevrolat, 1862), and its holotype is a female. Variation on Trypanidius maculatus Monné & Delfino, 1980 is commented. New country and department records for Paraguay are also provided.

Key-Words. Brazilian savanna; Longhorned beetles; Paraguay; Semiochemical traps; Taxonomy.

INTRODUCTION

Cerambycidae comprises one of the largest beetle families with over 36,000 species described worldwide (reviewed by Monné et al., 2017). Many species play critical role in maintenance of health of ecosystems, for instance by acting as primary wood decomposers or by serving as food source for other animals (Monné et al., 2017). Moreover, some cerambycid species may represent serious pests for agriculture and forestry, especially when they are out of their native geographic range (Eyre & Haack, 2017).

Within this context, crescent researches have been focused on development of strategies for the delineation of geographic distribution of native and exotic cerambycid species. Promising results have been obtained using semiochemical baited traps, especially with pheromone volatiles, for detection, monitoring, and management of cerambycid beetles (Millar & Hanks, 2017).

Particularly in Brazil, field bioassays comprising use of semiochemical traps are part of an ongoing project that aims to study the pheromone chemistry of South American cerambycid beetles. The last author of the present paper is conducting this project since 2014 and some findings have been published elsewhere (Silva et al., 2016a, b; Silva et al., 2017; Silva et al., 2018a, b). During the abovementioned bioassays conducted in Midwestern and Southeastern Brazil from 2015 to 2018, 17 non-target cerambycid species were caught. Surprisingly, 16 of them were noted as new state records for this country, and one was recognized as a new synonym. These findings offered the main framework for the present paper.

During identification of cerambycids from other collection source, a specimen of Chlorethe Bates, 1867, which remained in doubtful identity, was studied. However, because we came across a misidentification involving C. scabrosa Zajciw, 1963 and C. brachyptera Zajciw, 1963, we decided to include here the fix for this issue.

MATERIAL AND METHODS

Adult beetles representing most of the cerambycid species in this paper were collected with cross-vane intercept panel traps (black corrugated plastic) deployed in forest remnants of Cerrado from the Brazilian states of São Paulo (cities of Anhembi and Valentim Gentil) and Mato Grosso do Sul (city of Cassilândia). Semiochemicals (pher-
omone and plant volatiles) and UV light were used as attractants. Except for *Psapharochrus maculatissimus* (Bates, 1861) (i.e., Silva et al., 2019), it is noteworthy to point that cerambycid species reported here were caught at random by the treatment traps and at insufficient numbers for statistics (data not shown).

Specimens from other sources were also examined and their records were provided.

The references under Pirangoclytus mniszechii (Chevrolat, 1862) and Chlorethe scabrosa (Zajciw, 1963) are restricted to the original descriptions and catalogues of Monné (2019a, b).

Photographs of habitus from representative specimens were taken with a Canon EOS Rebel T3i DSLR camera, Canon MP-E 65 mm f/2.8 1-5X macro lens, controlled by Zerene Stacker AutoMontage software.

The map depicting the new distributional records was made using the program MapCreator 2.0 Studio.

The acronyms used in the text are as follows: ESALQ = Escola Superior de Agricultura “Luiz de Queiroz”, Departamento de Entomologia e Acarologia, Piracicaba, São Paulo, Brazil. MZSP = Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil.

Field collections of cerambycid beetles made by the last author at Anhembi, Cassilândia, and Valentim Gentil were conducted under the SISBIO permit № #46395-2 from the Brazilian Ministry of the Environment. The study of cerambycid beetles from these locations was registered with the National System for the Management of Genetic Heritage and Associated Traditional Knowledge (Sisgen, Brazil) under Nº #AE3897B.

**RESULTS**

Seventeen of the 18 cerambycid species reported here represent new records for the Brazilian states of Mato Grosso do Sul (1), Rio de Janeiro (1), and São Paulo (15). Another species represents a new synonym and a new department record for Paraguay. Additionally, one of the new records for the state of São Paulo (Brazil) is also a new country record for Paraguay.

These species belong to the subfamilies Cerambycinae and Lamiinae, and their respective tribes (sometimes subtribes) are shown. Specimens from species representing new state records for Brazil or a new synonym, and that were collected with attractant traps are indicated with “semiochemical/light trap” within bracket. New synonym and distributional records are indicated in bold font within parentheses.

**CERAMBYCINAE Latreille, 1802**

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**SPHALLOTRICHINA Martins & Monné, 2002**

*Sphallotrichus sericeotomentosus* Fragoso, 1995

*Fig. 1*

**Material examined:** BRAZIL, Mato Grosso do Sul (new state record): Cassilândia (19°05′31.2″S, 51°48′56.9″W), (semiochemical trap), 3 males, 1 female, 03.III.2017, S.R. Rodrigues col. (ESALQ).

**Geographical distribution:** This species was described from Brazil (Mato Grosso, Rondônia, and Pará) and Bolivia (Santa Cruz). Currently, it is also known from the Brazilian states of Amazonas, Maranhão, and Goiás (Monné, 2019a). Additionally, Bezark (2019) listed this species in Venezuela, a country record previously presented by Monné & Hovore (2005).

**Clytini Mulsant, 1839**

*Pirangoclytus mniszechii* (Chevrolat, 1862)

*Figs. 2-8*

**Mecometopus mniszechii** Chevrolat, 1862: 64; Monné, 2019a: 150 (cat.).


**Material examined:** BRAZIL, Espírito Santo: Barra do São Francisco (Córrego Itá), 2 males, 1 female, paratypes of *M. mendosus*, XI.1956, Zikán col. (MZSP); rio Guandú, 1 paratype female of *M. mendosus*, X.1920, F. Hoffmann col. (MZSP). Rio de Janeiro: Rio de Janeiro, 1 paratype male of *M. mendosus*, X.1934, B. Pohl col. (MZSP). Minas Gerais: Mar de Espanha, 1 paratype male of *M. mendosus*, 15.XI.1907, Zikán col. (MZSP); 1 paratype male of *M. mendosus*, 29.XI.1909, Zikán col. (MZSP); Coronel Pacheco, 1 female, 1.I.1956, V. Gomes col. (MZSP); Parque Estadual do Rio Doce, 1 female, XI.2014, L. Migliore col. (MZSP). São Paulo: Anhembi (22°42′01.4″S, 48°15′01.4″W), [semiochemical trap], 1 female, 11.XII.2018, W.D. Silva col. (ESALQ); Guarulhos (22°71′52.3″S, 48°15′89.65″W), 1 male, 1 female, 06.V.2013, E.N. Lopes col. (MZSP); Itu (Fazenda Pau d’Alho), 1 female (holotype of *M. mendosus*), 10.XI.1970, Monné col. (MZSP); Guaruja, 1 paratype male of *M. mendosus*, 10.XI.1920, Melzer col. (MZSP); Iguape, 1 paratype male of *M. mendosus*, XII.1921, A.C. Braole col. (MZSP); Campinas, 1 paratype male of *M. mendosus*, XI.1919, Merbach col. (MZSP); São Paulo (São Paulo: 1 male, 1 paratype male of *M. mendosus*, 1916, Sohmalt col. (MZSP); Rio Vermelho, 1 paratype male of *M. mendosus*, 13.XI.1921, Melzer col. (MZSP). Santa Catarina: Joinville, 1 paratype male of *M. mendosus*, 1916, Sohmalt col. (MZSP); Rio Vermelho, 1 paratype male of *M. mendosus*, DIRINGS (MZSP). PARAGUAY, Distrito Capital: Asunción, 1 paratype female of *M. mendosus*, 18.IX.1976, B. Aranda col. (MZSP). Cordillera (new department record): San Bernardino, 1 male, IX.1922, K. Friebrig col. (MZSP).

**Geographical distribution:** Currently, it is known from Brazil (Espírito Santo, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, and Rio Grande do Sul) (Monné, 2019a).

**Remarks:** Chevrolat (1862) described *Mecometopus mniszechii* from Brazil without a specific locality. Monné et al. (2009) have first provided a detailed place for this species (Brazil, Rio de Janeiro, Itatiaia). Later, Galileo & Martins (1996) described *M. mendosus* from Brazil (São Paulo, Minas Gerais, Espírito Santo, Rio de Janeiro, Santa Catarina) and...
Paraguay. Di Iorio (2006) synonymized *M. mendosus* with *M. mniszechii*, but Martins & Galileo (2011: 191) revalidated the species (translated): “Di Iorio (2005, est. 47, fig. 9) illustrated in color *Pirangocyclus insignis* under the denomination of *M. mendosus*. However, the same author (2006: 12) erroneously considered *Pirangocyclus mendo- sus* as synonym of *P. mniszechii* [sic];” and ahead, in the same work (translated, p. 196): “Di Iorio (2006: 12) considered *Mecometopus mendosus* synonym of *P. mniszechii* [sic]. This synonymy is inaccurate because the elytral color patterns are different. In *Pirangocyclus mniszechii* the basal maculae of the elytra are much larger and are followed by a small lateral spot near to its apex; the sutural maculae at the front of the middle also are much larger and closer to the basal one.” Nevertheless, we think that Di Iorio (2006) was right. Firstly, the small yellowish pubescent spot on sides of anterior third may or may not be present. It is present in some paratypes of *M. mendosus* (Figs. 5, 7, 8), and not only in a paratype as pointed out in the original description. Furthermore, when present, it is variable in size. Moreover, the size and shape of the elytral pubescent maculae (Figs. 2, 4, 5, 7, 8) are very variable in this species. Accordingly, the arguments by Martins & Galileo (2011) are not consistent.

Di Iorio (2006: 13) reported: “*Mecometopus mendo- sus* and the true *Mecometopus palmatus* (of Olivier, 1795) can be differentiated by the pubescence of sternites 1º and 2º, which is of a yellow color in *Mecometopus mniszechii*, and white in *Mecometopus palmatus* (Galileo & Martins, 1996). The description of “*Mecometopus palmatus*” given by Laporte & Gory (1836: 84-85) says clearly “abdomen noir, avec les deux premiers segments et une tache de chaque côté du mesothorax d’un beau jaune”. According to this, the reference of Laporte & Gory (1836) must be referred to *Mecometopus mendo- sus*. This character, abdominal pubescence of white or yellow color, is of uncertain value to the determination of specimens: many Clytini exhibit variable coloration of the integument, and of the pubescent bands or spots [. . .]. Large series of specimens from different localities often are needed to clearly establish taxonomic status.” These statements are somewhat confused. It is true that Laporte & Gory (1836) described the ventral pubescence in *Mecometopus palmatus* as being yellow. We agree with him regarding the synonymy between *M. palmatus sensu* Laporte & Gory (1836) and *M. mendosus*, and also regarding the variation in the color of the pubescence. However, apparently Di Iorio (2006) was suggesting that *Mecometopus mniszechii* may be also equal to *M. palmatus* (Olivier, 1795). However, when present, the small yellow pubescent spot of the elytra in *M. mniszechii* (= *Pirangocyclus mniszechii*) is always placed at anterior third, while in *M. palmatus* it is placed about middle. Furthermore, although it is possible that these features are variable, in all specimens of *M. palmatus* the elytral apex is less oblique, and the anterior elytral pubescent band is elongate. Still according to Di Iorio (2006: 15): “Only the extension of the abdominal yellow pubescence appears to differ slightly: on sternites I-III and part of IV in *Mecometopus mniszechii* (fide de [sic] Chevolat, 1862a), and only on sternites I-II in *Mecometopus mendo- sus*. Actually, there are paratypes of *M. mendosus* with pubescence on ventrites III and IV (Fig. 6), not as dense as on I-II, but distinct.

The holotype of *Mecometopus mendo- sus* was described as being a male, but it is a female (Figs. 2-3).

**COMPSOCERINI** Thomson, 1864

*Chlorethe scabrosa* Zajciw, 1963

Fig. 9

*Chlorethe scabrosa* Zajciw, 1963: 418; Monné, 2019a: 174 (cat.).

*Chlorethe brachyptera*; Monné et al., 2016a: 346, fig. 23 (distr.); Monné et al., 2016b: 10 (distr.). (Misidentified).

**Material examined:** BRAZIL, [no further details]: 1 female, XII.1938, [no collector indicated] (MZSP).

**Geographical distribution:** Currently, *C. scabrosa* is known from Brazil (Mato Grosso do Sul, Espírito Santo, Paraná, Santa Catarina, and Rio Grande do Sul) and Argentina (Misiones) (Monné, 2019a).

**Remarks:** *Chlorethe scabrosa* was originally described from Brazil (Paraná and Mato Grosso [currently, Mato Grosso do Sul]). Monné et al. (2016a) and Monné et al. (2016b) reported *C. brachyptera* from the Brazilian state of Rio de Janeiro. However, the specimen figured by Monné et al. (2016a) is a male of *C. scabrosa*. Probably, the specimen mentioned by Monné et al. (2016b) is the same of Monné et al. (2016a). Accordingly, *C. brachyptera* is excluded from the fauna of Rio de Janeiro, and *C. scabrosa* is reported for the first time in this state.

**NEOIBIDIONINI** Monné, 2012

**TROPIDINA** Galileo & Martins, 2007

*Tropidion rubricatum* (Gounelle, 1909)

Fig. 10

**Material examined:** BRAZIL, São Paulo (new state record): Valentim Gentil (20°22′24.7″S, 50°05′17.8″W), [semiochemical trap], 1 female, 17.X.2016, W.D. Silva col. ([ESALQ]); 2 females, 19.X.2016, W.D. Silva col. ([ESALQ]).

**Geographical distribution:** *Tropidion rubricatum* was described from Brazil (Goiás). Currently, it is known from Venezuela, Brazil (Goiás, Mato Grosso, and Minas Gerais), and Bolivia (Monné, 2019a).

**PIEZOCERINI** Lacordaire, 1868

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*Piezocera costula* Martins, 1976

Fig. 11

**Material examined:** BRAZIL, São Paulo (new state record): Valentim Gentil (20°22′24.7″S, 50°05′17.8″W), [semiochemical trap], 1 female, 02.X.2015, W.D. Silva col. ([ESALQ]); 1 male, 1 female, 25.XI.2015, W.D. Silva col. ([ESALQ]); 1 female, 22.XII.2015, W.D. Silva col. ([ESALQ]); 1 male, 1 female, 24.XII.2015, W.D. Silva col. ([ESALQ]).
Figures 1-11. (1) *Sphallotrichus sericeotomentosus*, female, dorsal habitus. (2-8) *Pirangocythus mendosus*: (2) holotype female, dorsal habitus; (3) holotype female, ventral habitus; (4) paratype 1, female, dorsal habitus; (5) paratype 2, female, dorsal habitus; (6) paratype 2, female, ventral habitus; (7) paratype 3, male, dorsal habitus; (8) paratype 4, male, dorsal habitus. (9) *Chlorethe scabrosa*, female, dorsal habitus. (10) *Tropidion rubricatum*, female, dorsal habitus. (11) *Piezocera costula*, female, dorsal habitus.
Geographical distribution: This species was described from Brazil (Mato Grosso do Sul). Currently, it is known from Bolivia (Santa Cruz) and Brazil (Mato Grosso do Sul) (Monné, 2019a).

**SMODICINI Lacordaire, 1868**

*Smodicum semifidescens* Gounelle, 1911

![Fig. 12](image1)

Material examined: BRAZIL, São Paulo (new state record): Valentim Gentil (20°22′24.7″S, 50°05′17.8″W), [light trap], 1 male, 12.X.2018, W.D. Silva col. (ESALQ); 2 females, 11.X.2108, W.D. Silva col. (ESALQ).

Geographical distribution: *Smodicum semifidescens* was described from Peru and Brazil (Goiás). Currently, it is known from Peru, Bolivia (Santa Cruz), Brazil (Goiás), Paraguay, and Argentina (Salta, La Rioja, Mendoza, and Buenos Aires) (Monné, 2019a).

**LAMIIINAE LATREILLE, 1825**

*Leptostylus gnoma* Monné & Hoffmann, 1981

![Fig. 13](image2)

Material examined: BRAZIL, São Paulo (new state record): Valentim Gentil (20°22′17.7″S, 50°05′17.9″W), [semiochemical trap], 1 female, 17.7″S, 50°04′46.6″W), [semi - cord): Valentim Gentil (20°22′17.9″S, 50°05′17.3″W), 1 male, 1 female, 03.XII.2018, W.D. Silva col. (ESALQ); 1 female, 12.XII.2018, W.D. Silva col. (ESALQ).

Geographical distribution: This species was described from Brazil (Mato Grosso do Sul). Currently, it is also known from Bolivia (Santa Cruz) and Brazil (Pará). Currently, it is known from Mexico (Jalisco and Veracruz), Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, Colombia, Brazil (Pará, Mato Grosso, Espírito Santo, Paraná, and Santa Catarina), Peru, Bolivia (Beni, Santa Cruz, Tarija), and Paraguay (Monné, 2019b).

**Lepturges* (Lepturges) limbipus Bates, 1872**

![Fig. 14](image3)


Geographical distribution: This species was described from Nicaragua. Currently, it is known from Mexico (Jalisco and Veracruz), Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, Colombia, Brazil (Pará, Mato Grosso, Espírito Santo, Paraná, and Santa Catarina), Peru, Bolivia (Beni, Santa Cruz, Tarija), and Paraguay (Monné, 2019b; Barros et al., 2019).

**Lepturges* (Lepturges) perelegans Bates, 1863**

![Fig. 15](image4)

Material examined: BRAZIL, São Paulo (new state record): Valentim Gentil (20°22′25.8″S, 50°05′17.9″W), [semiochemical trap], 1 female, 10.XII.2016, W.D. Silva col. (ESALQ); 1 female, 27.XI.2015, W.D. Silva col. (ESALQ).

Geographical distribution: *Lepturges perelegans* was originally described from Brazil (Amazonas). Currently, it is known from Brazil (Amazonas, Pará, Mato Grosso, and Maranhão) (Monné, 2019b).

**Trypanidius maculatus** Monné & Delfino, 1980

![Figs. 16-18](image5)

Material examined: BRAZIL, São Paulo (new state record): Valentim Gentil (20°22′25.8″S, 50°05′17.9″W), [semiochemical trap], 1 female, 10.XI.2015, W.D. Silva col. (ESALQ); (20°22′17.3″S, 50°04′47.4″W), 1 male, 1 female, 03.XII.2018, W.D. Silva col. (ESALQ); 1 female, 12.XII.2018, W.D. Silva col. (ESALQ).

Geographical distribution: *Trypanidius maculatus* was described from Venezuela, Brazil (Pará and Mato Grosso), and Paraguay (Monné, 2019b).

Remarks: The narrow oblique pubescent band adjacent to the black oblique band on anterior quarter of the elytra may be whitish or pale yellow (Fig. 17) or distinctly yellow (Fig. 18), well-delimited (Fig. 18) or somewhat irregular (Fig. 16); the two black posterior pubescent spots on pronotum may be distinct (Fig. 16) or nearly absent (Fig. 18).

**ACANTHODERINI Thomson, 1860**

*Aegoschema moniliferum* (White, 1855)

![Fig. 19](image6)

Material examined: BRAZIL, São Paulo (new state record): Valentim Gentil (20°22′17.3″S, 50°04′47.4″W), [semiochemical trap], 1 female, 30.XI.2018, W.D. Silva col. (ESALQ); Luiz Antonio (Estação Ecológica Jataí; 21°36′47″S, 47°43′43″W; mata ciliar), 2 females, XII.2007, Lara & Perioto col. (MZSP); 1 male, 1 female, VII.2008, Lara & Perioto col. (MZSP).

Geographical distribution: *Aegoschema moniliferum* was described from Brazil (Pará). Currently, it is known from French Guiana, Brazil (Roraima, Amazonas, Pará, Rondônia, Mato Grosso, Goiás, Maranhão, and Ceará), Peru, Bolivia (Pando and Santa Cruz) (Monné, 2019b), and Colombia (Meta) (Nascimento & Botero, 2018).

**Dufauxia guaicurana** Lane, 1955

![Fig. 20](image7)

Material examined: BRAZIL, São Paulo (new state record): Valentim Gentil (20°22′17.7″S, 50°05′17.9″W), [semiochemical trap], 1 female, 01.X.2016, W.D. Silva col. (ESALQ); (20°22′25.8″S, 50°05′17.9″W), 1 male, 24.IX.2018, W.D. Silva col. (ESALQ).
Geographical distribution: Currently, this species is known from the Brazilian states of Rondônia (Monné & Magno, 1990) and Mato Grosso, and Bolivia (Beni, Santa Cruz) (Wappes et al., 2006).

Remarks: Dufauxia guaicurana was described from Brazil (Mato Grosso, “Guaicurus, km 1221 da E.F.N.O.B.”). Guaicurus was a railway station of the “Estrada de Ferro Noroeste do Brazil”. This railway station was located in the municipality of Miranda, which, at that time, belonged to the Brazilian state of Mato Grosso. However, in 1977 Mato Grosso was divided into two states: Mato Grosso and Mato Grosso do Sul. Miranda is currently placed in the Brazilian state of Mato Grosso. However, in 1977 Mato Grosso was divided into two states: Mato Grosso and Mato Grosso do Sul. Miranda is currently placed in the latter. Accordingly, the state of the type locality of Mato Grosso was described from Brazil (Pará). Currently, it is known from Venezuela, Brazil (Pará, Mato Grosso do Sul, Goiás, Maranhão, Piauí, Bahia and Minas Gerais), and Bolivia (Santa Cruz) (Monné, 2019b).

Psaphrochrus maculatissimus (Bates, 1861)  
Fig. 21


Geographical distribution: Psaphrochrus maculatissimus was originally described from Brazil (Pará). Currently, it is known from Brazil (Pará, Mato Grosso, and Goiás), Bolivia (Cochabamba and Santa Cruz) (Monné, 2019b). Zajciw (1968) recorded this species from Peru. This latter country was present in Monné (1994), but was omitted in Monné (2005, 2019b). Works excluding this species from Peruvian fauna are unknown. Furthermore, the work by Zajciw (1968) appears in Monné (2005, 2019b) under references of P. maculatissimus.

Remarks: The last author collected this species in 2016 in a remnant of Cerrado at Valentim Gentil. In that occasion, conspecific adults of both sexes were caught with traps baited with general attractant pheromones for cerambycid beetles. Living adult beetles were used to obtain the attractant pheromone of the species and the results will be published elsewhere (i.e., Silva et al., 2019).

Estola alternata Breuning, 1940  
Fig. 25

Material examined: BRAZIL, São Paulo (new state record): Anhembi (22°42′20.8″S, 48°10′01.4″W), [light trap], 1 female, 04.XII.2018, W.D. Silva col. (ESALQ).

Geographical distribution: Estola alternata was described from Brazil (Bahia). Currently, it is known from Brazil (Alagoas, Sergipe, and Bahia) (Monné, 2019b).

Mimasyngenes lineatipennis Breuning, 1950  
Fig. 26

Material examined: BRAZIL, São Paulo (new state record): Anhembi (22°42′20.8″S, 48°10′01.4″W), [semiochemical trap], 1 female, 04.XII.2018, W.D. Silva col. (ESALQ).

Geographical distribution: This species was described from Brazil (Alagoas, Sergipe, and Bahia) (Monné, 2019b).
it is known from Brazil (Maranhão, Goiás, Pernambuco, Bahia, and Paraná), Bolivia (Santa Cruz), and Argentina (Santiago del Estero) (Monné, 2019b; Breuning, 1974).

**DISCUSSION**

Broadly speaking, most of the distributional records related here (15 cerambycid species) are from the Brazilian state of São Paulo. Remarkably, 10 of these species (i.e., Piezocera costula, S. semipubescens, L. perellegans, T. maculatus, A. moniliferum, D. guaicurana, Psapharochrus maculatissimus, C. centralis, E. alternate, and M. lineatipennis) were found to be new southeasternmost distributional records in Brazil. The remaining new records for Mato Grosso do Sul, São Paulo, and Rio de Janeiro have been previously reported for other states within the same geographic region. However, one of these species, C. striata, represents a new country record for Paraguay.
Specimens representing most of the species reported here were collected with semiochemical traps, which have been demonstrated to be sensitive and efficient tools for detection of adult cerambycid beetles in different geographic regions (Millar & Hanks, 2017).

ACKNOWLEDGMENTS

The authors gratefully acknowledge financial support from São Paulo Research Foundation (FAPESP) under grant numbers: #2017/17898-0 (to JPB), #2017/15283-9 (to FELN); and #2013/26936-2 (to WDS); and from INCT-Seqioquímicos na Agricultura (FAPESP grant #2014/50871-0; CNPq grant #465511/2014-7). Authors also thank to Dr. João Carlos T. Mendes and Dr. Sérgio R. Rodrigues for allowing access to the forest remnants at Anhembi (Experimental Station of Forest Science – USP/ESALQ), and at Cassiânia (UEMS campus), respectively. A special thank you to Dr. Jocelyn Millar (University of California, Riverside) and Lawrence Hanks (University of Illinois at Urbana-Champaign) for providing the pheromone attractants; and to Cassio D. Silva and Araci R. Silva for helping in the field collections.

AUTHORS’ CONTRIBUTIONS

WDS: collected and prepared the specimens for taxonomy; AAS, JPB, and FELN: identified the species and revised the literature. AAS: took the photographs, and designed the distributional map and prepared the figures. All authors wrote the manuscript and approved its submission.

REFERENCES

Barros, R.C.; Fonseca, M.G.; Vendramini, V.E. & Júlio, C.E.A. 2019. Species of submission. All authors wrote the manuscript and approved its submission.


