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## Research article

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# New species and new records of flat-faced longhorned beetles (Cerambycidae, Lamiinae) from the Brazilian Northeast Region

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**Abstract.** Lamiinae is the most diverse group of Cerambycidae, comprising 20 589 valid species, of which over 2200 are known from Brazil, with many species recently described for the country. The Brazilian Northeast Region includes four Brazilian biomes and, historically, has received less attention in terms of research on biodiversity. However, considering only Lamiinae, the Brazilian Northeast is the third most diverse region in the country. Herein, we describe two new species of flat-faced longhorned beetles from the Brazilian Northeast Region: *Apagomerella nordestina* sp. nov. and *Malacoscyclus liceae* sp. nov. Additionally, we provide two new records for the region: *Acanthoderes (Acanthoderes) daviesii* (Swederus, 1787) from Pernambuco State and *Lachnia subcincta* Audinet-Serville, 1835 from Ceará State.

**Keywords.** Atlantic Forest, Caatinga, Coleoptera, Neotropical region, shortfalls in biodiversity.

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## Introduction

Lamiinae Latreille, 1825 is a megadiverse subfamily in Cerambycidae Latreille, 1802, comprising 20 589 valid species, classified in 3026 genera and 76 tribes (Roguet 2025). The group has been recovered as

monophyletic in recent molecular phylogenies (Souza *et al.* 2020a; Ashman *et al.* 2021; Nie *et al.* 2021; Li *et al.* 2024; Song *et al.* 2025), and its synapomorphies include a hypognathous head, narrowed distal palpomeres apically, stridulatory plate asymmetrical, presence of an antenna cleaner on the protibia, and distinct bilobed basal sclerite of the apodeme tibial flexor (Svacha & Lawrence 2014), although there are exceptions for some of these characters.

In Brazil, over 2200 species of Lamiinae are known (Monné *et al.* 2025), and many new species have been described from the country in the last years (Ferreira *et al.* 2023; Santos-Silva 2023; Santos-Silva *et al.* 2023; Lanuza-Garay *et al.* 2024; Monné *et al.* 2024; Silva Júnior *et al.* 2024), indicating that the real diversity of Lamiinae in the country is still underestimated.

The Brazilian Northeast Region is one of the five political regional divisions in the country, covering part of four out of the six biomes existent in the country: Amazon, Atlantic Forest, Caatinga, and Cerrado (IBGE 2019a). Historically, this region has received less attention in terms of strategies to achieve its biodiversity knowledge and conservation (Santos *et al.* 2011; Antongiiovanni *et al.* 2022), even though considering only the diversity of Lamiinae, the region is the third most diverse of Brazil, with 589 registered species (Monné *et al.* 2025). Recently, new species of Lamiinae were described for the region: *Aerenicopsis joseferreirai* Ferreira *et al.*, 2023 and *Pseudomecas mourai* Ferreira *et al.*, 2023 (*Aerenicini* Lacordaire, 1872); *Phoebella queirozae* Silva Júnior *et al.*, 2023 (*Hemilophini* Thomson, 1868); and *Lepturdrys capixaba* Monné *et al.*, 2024 (*Acanthocinini* Blanchard, 1845).

Herein, we describe two new species of flat-faced longhorned beetles from the Brazilian Northeast, *Apagomerella nordestina* sp. nov. and *Malacoscyclus licae* sp. nov. (*Hemilophini*), and we provide new regional records of two other species: *Acanthoderes (Acanthoderes) daviesii* (Swederus, 1787) (*Acanthoderini* Thomson, 1860) from Pernambuco State, and *Lachnia subcincta* Audinet-Serville, 1835 (*Onciderini* Thomson, 1860) from Ceará State.

## Material and methods

The collections' acronyms used in text are as follows:

- CE-UFPE = Coleção Entomológica da Universidade Federal do Pernambuco, Recife, Brazil  
 DZUP = Coleção Entomológica Pe. Jesus Santiago Moure, Universidade Federal do Paraná, Curitiba, Brazil  
 MZSP = Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil

The new material used in this study is part of the historical material examined from the collections mentioned previously. Photographs were taken using a camera connected to a Zeiss Axiocam 305 coupled to a Zeiss Stereo Discovery V20 stereo microscope, where the measurements were taken, and then edited with Adobe Photoshop and Adobe Illustrator. Complementary information to the specimen labels were indicated between brackets '['']' in the material examined sections. The descriptions of the new species do not repeat the characters included in their diagnoses. The terminology adopted in the descriptions follows Lawrence *et al.* (2010). The map of distribution was created with QGIS ver. 3.34.13 "Prizren" (QGIS 2024), employing the shapefiles "Brasil – Unidades da Federação" (IBGE 2022) and "Biomass continentais" (IBGE 2019b).

## Results

### Taxonomy

Class Insecta Linnaeus, 1758  
Order Coleoptera Linnaeus, 1758  
Suborder Polyphaga Emery, 1886  
Infraorder Cucujiformia Lameere, 1938  
Superfamily Chrysomeloidea Latreille, 1802  
Family Cerambycidae Latreille, 1802  
Subfamily Lamiinae Latreille, 1825  
Tribe Acanthoderini Thomson, 1860  
Genus *Acanthoderes* Audinet-Serville, 1835

Subgenus *Acanthoderes* (*Acanthoderes*) Audinet-Serville, 1835

*Acanthoderes* Audinet-Serville, 1835: 29.

*Acanthoderus* – Dejean 1835: 336 (cat., misspell.). — Laporte 1840: 461 (misspell.). — Duponchel in D’Orbigny 1841: 31 (desig., misspell.). — Sturm 1843: 253 (misspell.). — Thomson 1860: 5 (misspell.).

*Acanthoderes* – Drapiez 1837: 26. — Mulsant 1839: 143; 1863: 298. — Thomson 1860: 6; 1864: 17, 350. — Bates 1861a: 212; 1880: 139. — Fairmaire in Du Val 1864: 158. — Schjödte 1865: 207. — Lacordaire 1872: 753. — Gemminger & Harold 1873: 3145 (cat.). — LeConte 1873: 337. — LeConte & Horn 1883: 322. — Reitter 1912: 58. — Casey 1913: 301. — Schaufuss in Calwer 1916: 864, 870. — Planet 1924: 276. — Picard 1929: 126. — Blackwelder 1946: 610 (checklist). — Heyrovsky 1955: 269. — Zajciw 1969a: 197; 1969b: 607; 1970a: 187. — Marinoni 1977: 40. — Linsley & Chemsak 1985: 245. — Chemsak *et al.* 1992: 81 (checklist). — Sama 1994: 328. — Chemsak & Hovore 2002: 3. — Bousquet 2007: 617. — Bouchard *et al.* 2011: 486. — Bousquet *et al.* 2017: 159. — Silva Júnior *et al.* 2021: 492, 499, 504, 510, 514, 516 (phylogeny). — Sudre & Jiroux 2023: 50. — Bouchard *et al.* 2024: 17. — Monné 2024: 289 (cat.).

*Acanthoderes* (*Acanthoderes*) – Aurivillius 1923: 384 (cat.). — Gilmour 1965: 611 (cat.). — Monné 1994b: 54 (cat.); 2005: 159 (cat.); 2012: 76 (cat.); 2024: 289 (cat.). — Monné & Hovore 2006: 202 (checklist). — Bezark 2024: 239 (checklist). — Tavakilian & Chevillotte 2024 (cat.). — Roguet 2025 (cat.).

### Type species

*Cerambyx* (*Lamia*) *daviesii* Swederus, 1787 (subsequent designation by Duponchel in D’Orbigny 1841).

### Included species

*Acanthoderes* (*Acanthoderes*) currently comprises 31 valid species:

- *Acanthoderes* (*Acanthoderes*) *albifrons* Chemsak & Hovore, 2002
- *Acanthoderes* (*Acanthoderes*) *aliciae* Chemsak & Hovore, 2002
- *Acanthoderes* (*Acanthoderes*) *alpina* Chemsak & Hovore, 2002
- *Acanthoderes* (*Acanthoderes*) *amplifrons* Chemsak & Hovore, 2002
- *Acanthoderes* (*Acanthoderes*) *amplitoris* Chemsak & Hovore, 2002
- *Acanthoderes* (*Acanthoderes*) *bicolor* Chemsak & Hovore, 2002
- *Acanthoderes* (*Acanthoderes*) *cavei* Chemsak & Hovore, 2002
- *Acanthoderes* (*Acanthoderes*) *daviesii* (Swederus, 1787)
- *Acanthoderes* (*Acanthoderes*) *ferruginea* Chemsak & Hovore, 2002

- *Acanthoderes (Acanthoderes) flavomaculata* Chemsak & Hovore, 2002
- *Acanthoderes (Acanthoderes) giesberti* Chemsak & Hovore, 2002
- *Acanthoderes (Acanthoderes) hondurae* Chemsak & Hovore, 2002
- *Acanthoderes (Acanthoderes) laevicollis* Bates, 1872
- *Acanthoderes (Acanthoderes) laportei* Aurivillius, 1923
- *Acanthoderes (Acanthoderes) latevittata* Aurivillius, 1921
- *Acanthoderes (Acanthoderes) latiforma* Chemsak & Hovore, 2002
- *Acanthoderes (Acanthoderes) linsleyi* Chemsak & Hovore, 2002
- *Acanthoderes (Acanthoderes) noguerai* Chemsak & Hovore, 2002
- *Acanthoderes (Acanthoderes) paravetusta* Chemsak & Hovore, 2002
- *Acanthoderes (Acanthoderes) parva* Chemsak & Hovore, 2002
- *Acanthoderes (Acanthoderes) parvimacula* Zajciw, 1964
- *Acanthoderes (Acanthoderes) quatuordecimguttata* (Schönherr, 1817)
- *Acanthoderes (Acanthoderes) rubripes* Bates, 1872
- *Acanthoderes (Acanthoderes) rufofemorata* Aurivillius, 1925
- *Acanthoderes (Acanthoderes) satanas* Bates, 1880
- *Acanthoderes (Acanthoderes) septemmaculata* Buquet, 1860
- *Acanthoderes (Acanthoderes) solisi* Chemsak & Hovore, 2002
- *Acanthoderes (Acanthoderes) subtessellata* Bates, 1880
- *Acanthoderes (Acanthoderes) thammi* Bates, 1880
- *Acanthoderes (Acanthoderes) zischkai* Tippmann, 1960
- *Acanthoderes (Acanthoderes) zonata* Bates, 1880

#### Genus distribution

Mexico, Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Guyana, French Guiana, Ecuador, Peru, Bolivia, and Brazil (Amapá, Amazonas, Pará, Rondônia, Espírito Santo, and Bahia).

#### *Acanthoderes (Acanthoderes) daviesii* (Swederus, 1787)

Figs 1A, 2

*Cerambyx (Lamia) daviesii* Swederus, 1787: 195, pl. 8 fig. 6.

*Lamia punctata* Fabricius, 1793: 272.

*Acanthoderes swederi* White, 1855: 360, pl. 9 fig. 6.

*Cerambyx (Lamia) daviesii* – Gmelin 1790: 1837.

*Lamia daviesii* – Olivier 1797: 469. — Schönherr 1817: 380.

*Cerambyx daviesii* – Olivier 1800: 104, pl. 6 fig. 42a–b.

*Lamia punctata* – Fabricius 1802: 288 — Zimsen 1964: 168 (type).

*Acanthoderes daviesii* – Audinet-Serville 1835: 29. — Guérin-Méneville 1855: 600 (distr.). — White 1855: 360. — Thomson 1864: 17 (syn.). — Gemminger & Harold 1873: 3145 (cat.). — Bodkin 1919: 268 (distr.). — Günther 1940: 466 (distr.). — Soukup 1942: 308 (distr.). — Blackwelder 1946: 610 (checklist). — Zischka 1948: 7 (distr.). — Duffy 1960: 214 (biol., host). — Zajciw 1969b: 611 (distr.); 1970b: 5 (distr.). — Chemsak *et al.* 1992: 81 (checklist). — Sama 1994: 322, fig. 1. — Tavakilian 1997: 134 (syn.). — Tavakilian *et al.* 1997: 313 (host). — Turnbow *et al.* 2003: 28 (distr.). — Touroult *et al.* 2010: 31 (distr.). — Wappes *et al.* 2011: 5 (distr.). — Bezark 2018: 53, fig. 35 (distr.). — Souza *et al.* 2020b: 24, figs 2, 4, 7, 14–15, 24, 31 (phylogeny). — Santos-Silva *et al.* 2020: 4, figs 1–3.

*Acanthoderus daviesii* – Dejean 1835: 336 (misspell.). — Duponchel in D’Orbigny 1841: 31 (misspell.).

*Acanthoderes punctata* – Drapiez 1837: 26. — Blackwelder 1946: 611 (checklist). — Zajciw 1970a: 187.

*Acanthoderes swederi* – Bates 1861b: 474 (distr.). — Kirsch 1875: 288 (distr.). — Prudhomme 1906: 37 (distr.).

*Acanthoderes daviesii* var. *swederi* – Gemminger & Harold 1873: 3146 (cat.).

*Acanthoderes (Acanthoderes) daviesii* – Aurivillius 1923: 384 (cat.). — Buck 1959: 604 (distr.). — Gilmour 1965: 612 (cat.). — Monné 1994b: 54 (cat.); 2001: 37 (host); 2005: 160 (cat.); 2024: 290 (cat.). — Monné & Giesbert 1994: 229 (checklist). — Martínez 2000: 93 (distr.). — Monné & Hovore 2006: 202 (checklist). — Morvan & Morati 2006: 34 (distr.). — Giuglaris 2012: 63 (distr.). — Monné *et al.* 2012: 30 (distr.). — Morvan & Roguet 2013: 12 (distr.). — Monné & Chaboo 2015: 84 (distr.). — Silva Júnior *et al.* 2021: 26, figs 2d, 3a, 5b, 8g (phylogeny). — Souza *et al.* 2021: 215 (distr.). — Bezark 2024: 239 (checklist). — Tavakilian & Chevillotte 2024 (cat.). — Roguet 2025 (cat.).

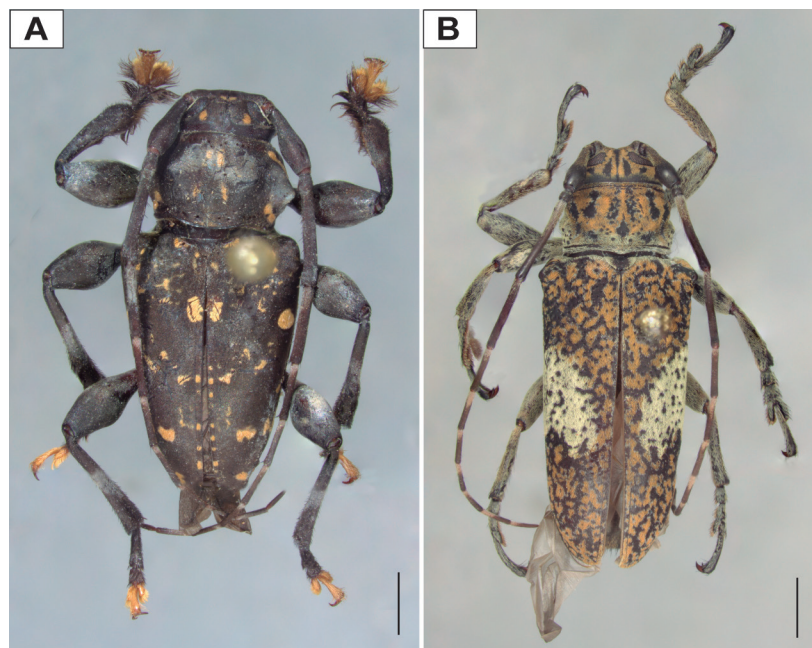
*Acanthoderes (Acanthoderes) punctata* – Aurivillius 1923: 385 (cat.). — Gilmour 1965: 612 (cat.). — Monné 1994b: 55 (cat.). — Monné & Giesbert 1994: 229 (checklist).

### Material examined

BRAZIL – Pernambuco [new state record] • 1 ♂; Cabo [de Santo Agostinho], Res.[erva] Ecol.[ógica] Gurjaú; [8°14'22" S, 35°03'09" W]; 1 Jun. 2003; S. Santos leg.; Malaise 2; J.O. Silva Jr det. 2025; CE-UFPE 007906 • 1 ♂; Recife, Dois Irmãos; [8°00'15" S, 34°56'43" W]; 1 May 2001; C.E. Nobre; J.O. Silva Jr det. 2025; CE-UFPE 007907.

### Comments

Monné (2024) in his catalogue listed *A. (A.) daviesii* from the State of Bahia (Brazilian Northeast), the only record of the genus in the region. Currently, *A. (A.) daviesii* is known from: Honduras, Panama, French Guiana, Guyana, Ecuador, Peru, Bolivia, and Brazil (Amapá, Amazonas, Pará, Rondônia, Bahia, and now Pernambuco) (Fig. 2) (Monné 2024; Tavakilian & Chevillotte 2024).



**Fig. 1.** Specimen dorsal habitus. **A.** *Acanthoderes (Acanthoderes) daviesii* (Swederus, 1787), ♂ (CE-UFPE 007906). **B.** *Lachnia subcincta* Audinet-Serville, 1835, ♀ (DZUP 324386). Scale bars = 2 mm.

Tribe Hemilophini Thomson, 1868

Genus *Apagomerella* Gilmour, 1962

*Apagomerella* Gilmour, 1962: 142.

*Apagomerella* – Gilmour 1965: 643 (cat.). — Lane 1974: 369. — Martins 1984: 326. — Monné 1995: 55 (cat.); 2005: 450 (cat.); 2012: 100 (cat.); 2024: 797 (cat.). — Martins & Galileo 1996: 21 (transf.); 2014a: 142 (rev.). — Monné & Hovore 2006: 256 (checklist). — Bezark 2024: 306 (checklist). — Tavakilian & Chevillotte 2024 (cat.). — Roguet 2025 (cat.).

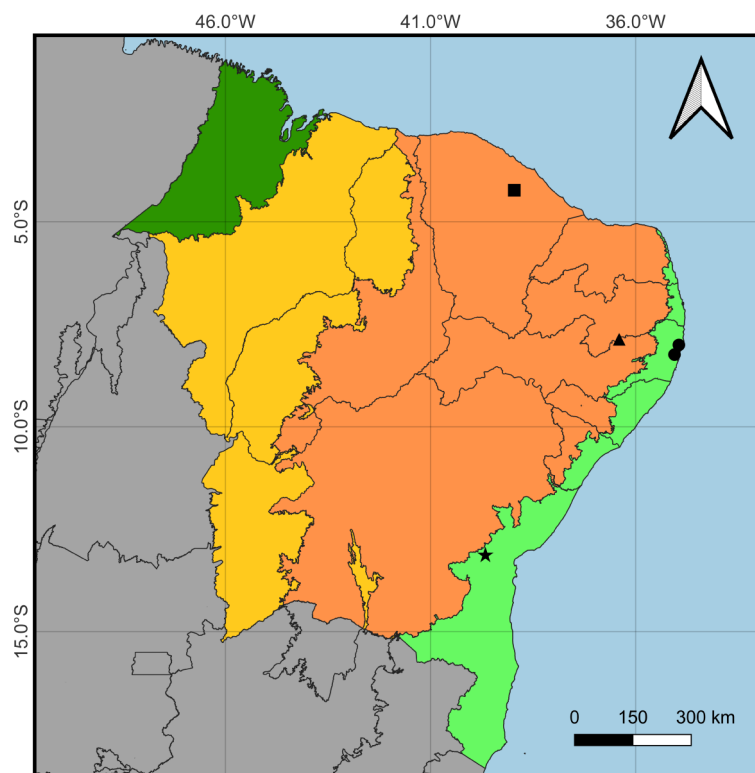
### Type species

*Apagomera suturella* Bates, 1881 (original designation), synonym of *Saperda versicolor* Boheman, 1859.

### Included species

*Apagomerella* currently comprises two valid species:

- *Apagomerella dissimilis* Galileo & Martins, 2005
- *Apagomerella versicolor* (Boheman, 1859)



**Fig. 2.** Distribution map of the new species and new records in the Brazilian Northeast Region. The biomes present in the region are highlighted in dark-green (Amazon), yellow (Cerrado), orange (Caatinga), and light-green (Atlantic Forest). The black shapes indicate the records of the species: square (*Lachnia subcincta* Audinet-Serville, 1835), circles (*Acanthoderes (Acanthoderes) daviesii* (Swederus, 1787)), triangle (*Apagomerella nordestina* sp. nov.), and star (*Malacoscyclus licae* sp. nov.). The white arrow indicates the North cardinal direction. Scale bar = 300 km.

### Genus distribution

Costa Rica, Paraguay, Argentina, Uruguay, and Brazil (Minas Gerais, Espírito Santo, São Paulo, Paraná, Santa Catarina, and Rio Grande do Sul).

*Apagomerella nordestina* sp. nov.

[urn:lsid:zoobank.org:act:A4080CBD-6937-4DE0-B886-D13BB27D08E7](https://zoobank.org/urn:lsid:zoobank.org:act:A4080CBD-6937-4DE0-B886-D13BB27D08E7)

Figs 2–3

### Diagnosis

Scape with orangish tegument mostly on the ventral surface, dark brown on the remaining surface (Fig. 3A–B). Prothorax with anterior margin narrower than the posterior margin (Fig. 3A). Pronotum is densely covered with light yellow pubescence laterally and on the post-mid portion centrally, mostly hiding the tegument (Fig. 3A). Elytra do not have light pubescence on the elytral suture and lateral margin (Fig. 3A, C). Ventrites II–IV are densely covered by light yellow pubescence laterally, hiding the tegument (Fig. 3B).

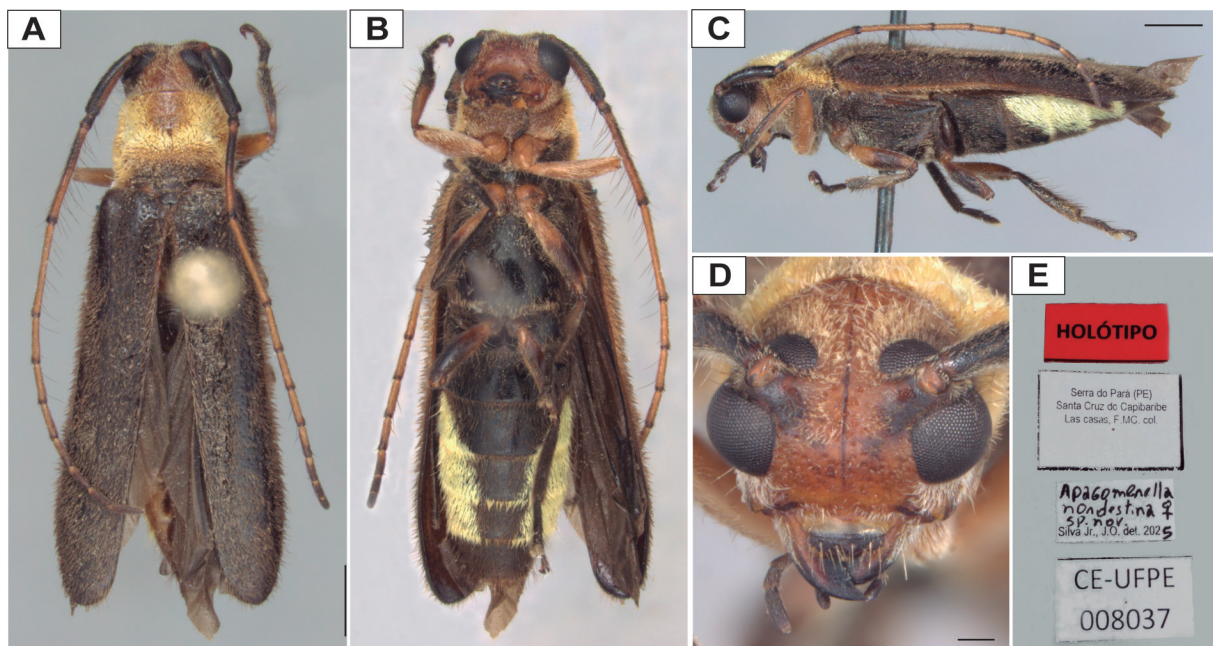
### Etymology

The specific epithet ‘*nordestina*’ is the feminine gentile of the Brazilian Northeast Region. Noun in apposition.

### Type material

#### Holotype

BRAZIL – Pernambuco • ♀; Santa Cruz do Capibaribe, Serra do Pará; [7°51'58" S, 36°24'3" W]; F.M.G. Las-Casas leg.; J.O. Silva Jr det. 2025; CE-UFPE 008037.



**Fig. 3.** *Apagomerella nordestina* sp. nov., holotype, ♀ (CE-UFPE 008037). **A.** Dorsal habitus. **B.** Ventral habitus. **C.** Lateral habitus. **D.** Head, frontal view. **E.** Type labels. Scale bars: A–C = 1 mm; D = 0.2 mm.

## Description

### Holotype (female)

**COLORATION.** Tegument mostly dark brown; yellow in part of maxilla; light brown in part of maxilla, and labium (except palpomeres); orangish on mandible at basal half, posterior region of anteclypeus, most of postclypeus (except lateroanterior margin, dark brown), most of frons (except slender mid-lateral area adjacent to antennal tubercle, dark brown), most of gena (except posterolateral area behind lower ocular lobe, dark brown), vertex, antennal socket, scape at ventral face (except basally and apically, brownish and dark brown, respectively), pedicel at basal ring, most of antennomere III (except mid-basal portion dorsally and apical ring, dark brown), most of antennomeres IV–VII (except apical rings, dark brown), antennomere VIII at basal half, antennomeres IX–XI at basal rings, most of pronotum and propleura (except posterior regions, dark brown), mesonotum at small area medially, elytron at outer margin at basal half, procoxa, most of mesocoxa (except mid portion, dark brown), trochanters, profemur, mesofemur at basal half and subapical portion, protibia at basal region and ventrally at basal half and post-mid portion, mesotibia at basal half ventrally, and part of tergum; black on mandible at apical region, labrum, and anteclypeus at anterior region; brownish on distal palpomeres at apex, antennal tubercle at inner portion posteriorly, scape at basal ring, prosternum, prosternal process, elytron at inner margin basally, mesoventral process, metepimerom medially, and metafemur at basal region and inner face; reddish-brown on tarsal claws.

**HEAD.** Maxilla and labium sparsely covered by brownish pubescence, except labial palpomere II, moderately covered by whitish pubescence. Mandible mostly glabrous, covered by dense white pubescence on laterobasal half, with some long yellow erect setae; with apex bifid, with superior tooth longer than inferior tooth. Labrum rounded at anterior and lateral margins; with some large punctures and long yellow erect setae medially. Anteclypeus with anterior margin slightly convex and lateral margin oblique. Postclypeus with anterior margin straight, moderately covered by white pubescence, sparser centrally. Frons strongly oblique towards posterior axis (lateral view), slightly depressed between antennal tubercle; mostly glabrous, with some short white setae surrounding lower eye lobe, sparsely covered by yellowish pubescence on posterior region, with a few brownish long erect setae; with medium-sized and large punctures densely distributed, sparser anteriorly. Gena slightly oblique at anterolateral region, rounded at anterior margin (frontal view), with deep reentrance anteriorly near postclypeus; densely covered by white pubescence at anterior region (except small anterolateral portion, glabrous), sparsely covered by white pubescence on mid region, moderately covered by whitish pubescence on posterior region (except area behind eye, glabrous), with some long light yellow erect setae on anterolateral portion; with small punctures densely distributed on mid and posterior regions. Antennal tubercle moderately prominent, with some brownish setae, densely distributed on area surrounding lower eye lobe, with dense yellowish pubescence on area surrounding upper eye lobe and area behind antennal socket; with some small punctures anteriorly. Lower eye lobe prominent, expanded laterally, more than two times anterior region of gena in length (frontal view), rounded at anterior and outer margins, slightly convex at inner margin, and oblique at posterior margin, divided from upper eye lobe by three rows of ommatidia in narrowest area; upper eye lobes distant one each other about 1.5 times one lobe width, subelliptical, wider at inner portion. Vertex slightly convex, moderately covered by yellowish pubescence, sparser medially, with a few brownish long erect setae; with small punctures densely distributed. Antennal socket mostly glabrous, moderately covered by yellowish pubescence on posterior margin. Antenna a little shorter than body; finely covered by brownish setae, denser dorsally, sparsely covered by yellowish setae on scape ventrally, with some long light yellow erect setae on ventral face of scape, with some long brown erect setae on inner face of all antennomeres, more frequent on antennomeres I–IV, with a few short dark brown, light brown and yellowish erect setae along all surface; scape gradually widened to mid region, subequal in width along posterior region; pedicel and flagellomeres subequal in width; antennomere III slightly curved on ventral face medially; antennomere

IV–XI straight. Antennal formula based on antennomere III length: scape = 0.71, pedicel = 0.14, IV = 0.96, V = 0.5, VI = 0.42, VII = 0.38, VIII = 0.35, IX = 0.31, X = 0.3, XI = 0.33.

**PROTHORAX.** Slightly widened from anterior margin towards posterior margin; sparsely covered by yellowish pubescence on mid-anterior region of pronotum and on posterior region of prosternum, sparsely covered by whitish pubescence on anterior region of prosternum and on prosternal process, moderately covered by yellowish pubescence on anterior and mid regions of propleura, finely covered by whitish pubescence on posterior region of pronotum and propleura, with a few brownish erect setae on propleura and prosternum, with sparse light yellow and light brown erect setae on pronotum; with small punctures densely distributed on pronotum (visible only in areas not hidden by dense pubescence) and anterior region of propleura. Prosternal process very slender, slightly expanded laterally at posterior region.

**PTEROTHORAX.** Scutellum with lateral margin oblique and posterior margin straight; finely covered by brownish pubescence. Elytron moderately covered by brown pubescence, sparser at basal region, with abundant short erect dark brown setae along all surface, more frequent on basal region, with short erect light yellow setae on lateral margin at basal half; with medium-sized punctures on basal region dorsally, with small punctures on remaining surface, densely distributed; humerus and apex rounded. Meso- and metathoracic sclerites finely covered by brownish pubescence, except mesoventral process and anterolateral region of metaventrite, moderately covered by yellowish pubescence, and posterior margin of metaventrite, densely covered by whitish pubescence. Mesanepisternum with small punctures, moderately distributed. Mesoventral process subequal in width at anterior portion, slightly expanded laterally at posterior portion.

**LEGS.** Coxae finely covered by yellowish pubescence on pro- and mesocoxae, brown on metacoxa. Trochanters mostly finely covered by light yellow pubescence, with dense light yellow pubescence on posterior margin, with some long erect light brown setae. Femora mostly sparsely covered by light brown pubescence on pro- and mesofemur, brown on metafemur, with some long erect yellowish and light brown setae, more frequent on posterior region, with dense whitish pubescence on ventral and anterior regions of profemur, with dense light yellow pubescence interspersed with light brown pubescence on posterior region of mesofemur, with dense light brown pubescence on posterior region of metafemur; mesofemur a little longer than pro- and metafemora. Tibiae slightly expanded from base until post-mid region, subequal until apex in width; sparsely covered by yellowish pubescence on ventral face at basal and mid portions and outer face basally of protibia, brown on ventral face of protibia at apical portion, meso- and metatibiae at basal and mid portions, denser at apical portion, with dense yellowish pubescence on inner face of protibia, with dense light brown pubescence on outer face of mid region of mesotibia and apical region of metatibia, with some short and long erect brown setae on outer face at apical half of protibia, with some short and long erect light brown and brown setae on meso- and metatibiae, more frequent on outer face and apically. Tarsi sparsely covered by brownish pubescence, with some erect and long erect setae along all surface, more frequent marginally, with dense light brown pubescence on ventral face of tarsomeri IV; protarsomerus I subequal to II–IV in length, meso- and metatarsomeri I longer than II–IV, respectively. Tarsal claws bifid and divergent, with inner teeth about a half of outer teeth length.

**ABDOMEN.** Ventrites sparsely covered by brown pubescence on ventrites I and V totally, ventrite II on mid region and mid-lateral region anteriorly, and ventrites III–IV medially, with dense brown pubescence on posterior margin of ventrite I, and posterior margin of ventrites II–IV medially, with some long erect setae along all surface, brown on areas with brown pubescence and light yellow on areas with light yellow pubescence, more frequent on lateral margin of all ventrites and posterior region of ventrite V; ventrite I wider, with remaining ventrites gradually decreasing in width, ventrites I–IV individually slightly narrowed from anterior towards posterior margin; ventrite V strongly narrowed from anterior towards posterior margin, a little longer than ventrite IV, with shallow median reentrance at posterior margin.

MEASUREMENTS (mm). Total length: 8.07, elytral length: 6, pronotum length: 1.36, humeral width: 1.93, pronotum width: 1.71, genal width: 1.1.

### Remarks

The new species is differentiated from the other two species in *Apagomerella* by the presence of dense light-yellow pubescence on the ventrites; the different pattern of light denser pubescence on the pronotum, on the lateral region and post-mid portion centrally in the new species, only on the lateral region in *A. dissimilis*, and on the mid-anterior portion and along mid longitudinal band in *A. versicolor*; and the absence of light dense pubescence on the elytron along lateral margin, apex, and elytral suture. The new species is herein assigned to *Apagomerella* because of the following shared characters with its congeneric species: lower ocular lobe longer than anterior portion of the gena in frontal view (not examined in *A. dissimilis*); antennomere III filiform, subequal or with similar length to scape and antennomere IV; prothorax without lateral projections; elytron without carinae, with elytral apex rounded; and tarsal claws with inner teeth shorter than outer teeth (not examined in *A. dissimilis*). *Apagomerella dissimilis* is known from Costa Rica, while *A. versicolor* is distributed in the Brazilian Southeast and South regions, Argentina, and Paraguay (Tavakilian & Chevillotte 2024). Hence, the new species represents the first record of *Apagomerella* for the Brazilian Northeast Region (Fig. 2).

### Comments on the genus

Gilmour (1962) described *Apagomerella* briefly, based only on male specimens of *A. suturella* (= *A. versicolor*), pointing out the scape longer than antennomere III and mesotibia sulcate dorsally. The latter character is in fact absent in *A. versicolor*, which presents only a dense pubescent coverage on the outer face of mesotibia. This is also the case for the new species. The mesotibial sulcus is a common feature in many groups of Lamiinae (e.g., Acanthoderini and Onciderini), but it is absent in Hemilophini (Lacordaire 1872; Martins & Galileo 2014a). The mesotibial sulcus usually is surrounded by a dense coverage of setae, then, possibly for this reason, Gilmour (1962) misinterpreted this character in *Apagomerella*. Martins & Galileo (2014a) redescribed the genus mentioning, among other characteristics, the antenna reaching the elytral apex in the antennomere IX in females, scape subequal to antennomere III and IV individually in length, antennomere XI about half of antennomere X in length, prothorax wider anteriorly than the “base” [posterior margin], and ventral surface of the body without coverage of dense pubescence [free translation from Portuguese]. Apparently, Martins & Galileo (2014a) based their redescription only on *A. versicolor*, since this character set does not properly represent *A. dissimilis*, the other species of the genus. In *A. dissimilis*, the antenna almost reaches the elytral apex in females (as in the new species), the anterior margin of the prothorax is a little narrower than the posterior margin, and the ventral surface of the body is partially covered by dense pubescence (on the mesoventral sclerites) (Galileo & Martins 2005). Besides, antennomere XI is subequal or just a little shorter than antennomere X in all the species of the genus. The new species resembles some fireflies (Lampyridae) in its coloration pattern, as do the other two species of the genus (see photos in Bezark 2025). This similarity in the coloration pattern with Lampyridae is also observed in many genera of Hemilophini (e.g., *Hemilophus* Audinet-Serville, 1835 and *Pyrobolus* Chevrolat, 1838), indicating potential mimicry associations among these groups (Linsley 1961; Nascimento *et al.* 2010), although there have been no fieldwork studies focused on this topic.

### Genus *Malacoscyclus* Thomson, 1868

*Malacoscyclus* Thomson, 1868a: 192.

*Malacoscyclus* – Lacordaire 1872: 886 (desig.). — Bates 1881: 223. — Aurivillius 1923: 586 (cat.). — Blackwelder 1946: 622 (checklist). — Gilmour 1965: 633 (cat.). — Martins & Galileo 1991a: 620; 2014b: 125 (rev.). — Monné 1995: 7 (cat.); 2005: 487 (cat.); 2012: 104 (cat.); 2024: 859 (cat.). — Galileo & Martins 1998: 254 (rev.). — Monné & Hovore 2006: 263 (checklist). — Bezark 2024: 315 (checklist). — Tavakilian & Chevillotte 2024 (cat.). — Roguet 2025 (cat.).

### Type species

*Saperda cirrata* Germar, 1823 (subsequent designation by Lacordaire 1872).

### Included species

*Malacoscyclus* currently comprises 13 valid species:

- *Malacoscyclus auricomus* Bates, 1881
- *Malacoscyclus cinctulus* Bates, 1881
- *Malacoscyclus cirratus* (Germar, 1823)
- *Malacoscyclus elegantulus* Galileo & Martins, 2005
- *Malacoscyclus fasciatus* Galileo & Martins, 1998
- *Malacoscyclus fulveolus* Bates, 1881
- *Malacoscyclus gonostigma* Bates, 1881
- *Malacoscyclus gratiosus* Bates, 1881
- *Malacoscyclus lacordairei* (Thomson, 1868)
- *Malacoscyclus lanei* Martins & Galileo, 1991
- *Malacoscyclus nearnsi* Monné & Monné, 2015
- *Malacoscyclus niger* (Aurivillius, 1909)
- *Malacoscyclus xanthotaenius* (Bates, 1881)

### Genus distribution

Colombia, Ecuador, Peru, Bolivia, Paraguay, Argentina, and Brazil (Goiás, Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, and Rio Grande do Sul).

*Malacoscyclus licae* sp. nov.

[urn:lsid:zoobank.org:act:A24C70E7-9AA3-4ACC-914A-0831765C0B5E](https://zoobank.org/urn:lsid:zoobank.org:act:A24C70E7-9AA3-4ACC-914A-0831765C0B5E)

Figs 2, 4

### Diagnosis

Frons does not have projections in males (Fig. 4D). Elytral tegument is mostly dark brown, with two contrasting yellowish areas, one along the elytral suture at the basal half, and another sublaterally along area of the humeral carina, both covered by dense yellow pubescence; elytron with one pair of prominent longitudinal striae dorsally, from the base until the apical region, about equally placed on the area between the elytral suture and humeral carina, subequal to the humeral carina in length, fused in the apical region; with humerus rounded (Fig. 4A). Metaventrite with large very depressed area at the mid-posterior region (Fig. 4B).

### Etymology

The specific epithet is a feminine genitive noun, in honor of Prof. Dr Lica Haseyama, a Brazilian entomologist specialist on Diptera.

### Type material

#### Holotype

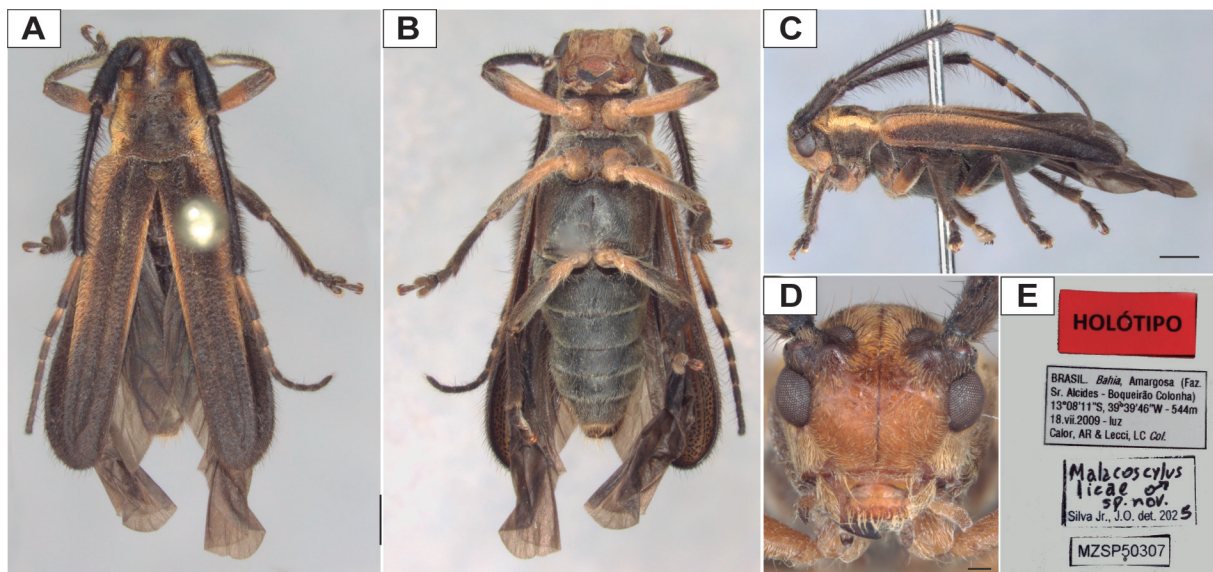
BRAZIL – Bahia • ♂; Amargosa, Faz.[enda] Sr. Alcides – Boqueirão Colonha; 13°08'11" S, 39°39'46" W; elev. 544 m; 18 Jul. 2009; A.R. Calor and L.C. Lecci leg.; light; J.O. Silva Jr det. 2025; MZSP 50307.

## Description

### Holotype (male)

**COLORATION.** Tegument mostly dark brown; brown on gulamentum, mandible at basal half and post-mid region, labrum at lateral margin, anteclypeus at anterolateral portion, postclypeus at anterior margin, gena at anterior margin and posterior region, frons at posterior region, vertex (except sublateral portion, dark brown), antennal tubercle at inner portion, antennal socket at anterior portion, prosternal process, elytron at lateral margin at basal half (except anterior portion, light brown), mesoventral process at posterior and mid portions, and coxae partially; black on mandible at apical region; orangish on most of labrum (except lateral margin, brown), most of anteclypeus (except anterolateral portion, brown), most of postclypeus (except anterior margin, brown), frons at anterior and mid regions, gena at anterior region (except anterior margin, brown), and tarsal claws partially; yellowish on maxillary palpomeres I–III, labial palpomeres I–II, antennomere IV at basal and mid portions, antennomeres V–IX at basal rings, pronotum at lateral portion, coxae partially, trochanters, profemur at basal and mid portions, mesofemur at basal half, and metafemur at basal portion; light brown on maxillary and labial palpi at apex of distal article, and coxae partially; reddish brown on tarsal claws partially.

**HEAD.** Mandible mostly glabrous, with dense light yellow pubescence on laterobasal half; with simple apex, with slight median reentrance. Labrum rounded at anterior and lateral margins; with small punctures arranged on mid row; with yellow long erect setae medially. Anteclypeus with anterior margin straight and lateral margin oblique. Postclypeus smooth, slightly concave medially at anterior margin; covered by light yellow pubescence, mostly sparse, dense on anterolateral portion, with a pair of long yellow erect setae in each side on anterior margin laterally. Frons wider than long, strongly oblique towards posterior axis (lateral view), slightly depressed at posterior region in area between antennal tubercle; sparsely covered by light yellow pubescence, with dense yellow pubescence on small area at posterolateral portion near antennal tubercle, with some yellowish and brownish long erect setae; with medium-sized and large punctures on mid and posterior regions, denser and larger posteriorly. Gena with anterolateral margin oblique (frontal view); densely covered by light yellow pubescence on anterior region (except anterior margin, glabrous), finely covered by brownish pubescence on mid region, densely covered by yellow pubescence on posterior region in area near vertex, with a few long yellowish erect setae;



**Fig. 4.** *Malacoscyclus liceae* sp. nov., holotype, ♂ (MZSP 50307). **A.** Dorsal habitus. **B.** Ventral habitus. **C.** Lateral habitus. **D.** Head, frontal view. **E.** Type labels. Scale bars: A–C = 1 mm; D = 0.2 mm.

with small punctures densely distributed in mid and posterior portions. Antennal tubercle moderately prominent, sparsely covered by brown setae, denser along margin surrounding eye. Lower eye lobe slightly widened laterally, with anterior margin rounded, inner and posterior margins oblique, divided by upper eye lobe by two rows of ommatidia; upper eye lobes distant one each other about 2.5 times one lobe width, subelliptical, wider at inner portion. Vertex densely covered by yellow pubescence on lateral region and along mid-longitudinal stripe, sparse on posterior region, finely covered by brownish pubescence on sublateral portion, with sparse long yellowish erect setae; with small punctures densely distributed, sparser medially. Antennal socket with tuft of light brown short erect setae on area near scape. Antenna longer than body; sparsely covered by brown pubescence, with sparse dark short erect setae, dense on dorsal surface of antennomeres III–V, with sparse dark long erect setae on ventral face of all antennomeres, dense on scape at apical region, pedicel, and antennomere III, forming moderately dense fringe on antennomere III. Scape gradually widened from base until mid region, subequal at apical half in width, with slight curvature at inner face basally. Pedicel wider at apical half. Antennomere III a little wider at apex. Antennal formula based on antennomere III length: scape = 0.45, pedicel = 0.12, IV = 0.35, V = 0.22, VI = 0.18, VII = 0.18, VIII = 0.15, IX = 0.15, X = 0.13, XI = 0.14.

**PROTHORAX.** Slightly projected laterally at mid portion, with posterior margin wider than anterior margin; sparsely covered by yellowish pubescence on pronotum centrally, propleura, prosternum, and prosternal process, with very dense coverage of light yellow pubescence on lateral region of pronotum (partially hiding tegument), forming oblique band between anterior and posterior margins, with a few long brownish and yellowish erect setae, more abundant on pronotum; with small and medium-sized punctures moderately distributed on pronotum centrally and propleura. Pronotum with one mid-central tubercle slightly prominent, with surface slightly fallen at posterior region (lateral view). Prosternal process slender, slightly widened towards posterior region, strongly expanded laterally at posterior region.

**PTEROTHORAX.** Scutellum with lateral and posterior margins rounded; sparsely covered by yellowish pubescence on anterior portion, denser on posterior portion. Elytron mostly sparsely covered by brownish pubescence, with abundant short dark brown erect setae along all surface, with some light brown and yellowish short erect setae, with dense yellow longitudinal pubescent bands on elytral suture at basal half, on more proximal dorsal stria from base until post-mid region, interspersed with light brown pubescence on post-mid region, on more distal dorsal stria from mid until post-mid region, interspersed with light brown pubescence, on humeral carina from base until post-mid region, wider basally, and on lateral margin on basal half, connected with band on humeral carina basally, sparser and interspersed with brown pubescence, except basally; with small punctures densely distributed, sparser and smaller apically; humeral carina from base until apical region, slightly fallen posteriorly; elytral apex rounded. Pterothoracic sclerites sparsely covered by brownish pubescence on mesanepisternum, mesepimeron, metanepisternum, metepimereon, and metaventrite laterally, sparsely covered by greyish pubescence on mesoventrite, mesoventral process, and metaventrite centrally, with a few long brownish erect setae. Mesoventral process with slight mid-longitudinal short ridge in anterior portion, slightly narrowed from anterior until mid portion, with mid-posterior portion strongly widened, with posterior margin rounded.

**LEGS.** Coxae and trochanters sparsely covered by yellowish pubescence, denser on posterior region of mesocoxa, meso- and metatrochanters with long light yellow curved setae on apical portion. Femora subequal in length; mostly sparsely covered by yellowish pubescence, with dense light yellow pubescence on profemur at anterior surface and on meso- and metafemora at posterior surface. Tibiae slightly expanded towards apex; mostly moderately covered by brown pubescence, moderately covered with short and long dark brown setae along all surface, more frequent on outer face and apically, interspersed with long light brown erect setae on apical region, with dense light yellow pubescence on inner face of protibia at mid region and apical half. Tarsi sparsely covered by brown pubescence, with dense light brown pubescence on tarsomeri IV ventrally, moderately covered with short and long dark brown erect

setae along all surface, more frequent laterally, with dense light yellow long setae on tarsomeri IV at apical margin; tarsomeri I shorter than tarsomeri II–III in length, tarsomeri V subequal to tarsomeri I–IV in length. Tarsal claws bifid and divergent, with inner teeth about two thirds of outer teeth length.

**ABDOMEN.** Ventrites sparsely covered by greyish pubescence centrally, a little denser on ventrite V, moderately covered by brown pubescence laterally, with dense greyish pubescence on posterior margin of ventrites I–IV, with sparse long light brown erect setae along all surface, denser on lateral margin of ventrites, very dense on posterior margin of ventrite V; ventrites I–II and IV–V wider at anterior region, slightly narrowed towards posterior margin (strongly narrowed on ventrite V), ventrite III constricted anteriorly, with anterior region narrower, slightly widened towards posterior margin; ventrite V subequal to ventrite IV in length, with posterior margin straight.

**MEASUREMENTS** (mm). Total length: 9.28, elytral length: 6.72, pronotum length: 1.53, humeral width: 2.66, pronotum width: 2.13, genal width: 1.38.

### Remarks

The new species is diagnosed by the following character set: distinct elytral coloration pattern, apical fusion of the two dorsal elytral striae, and the strongly depressed area in the metaventrite. The new species shares with its congeneric species the shape of the scape, slightly curved on the inner face basally, and antennomere III very elongated, more than twice as long as antennomere IV, with fringes of dense black setae on its inner face. A pair of dorsal striae on the elytron is also present in other species of *Malacoscyclus* (e.g., *M. cirratus* and *M. xanthotaenius*), but the fusion of these striae apically was never previously described in the genus. This type of fusion of dorsal striae or carina in Hemilophini is also present in *Acabanga* Martins & Galileo, 1991 and *Lycidola* Thomson, 1864. *Malacoscyclus* is known from South America, with species distributed in the Amazon or Atlantic Forest. In Brazil, four species are known from the Southeast and South regions (Tavakilian & Chevillotte 2024). Hence, the new species represents the first record of *Malacoscyclus* for the Brazilian Northeast Region (Fig. 2).

### Comments on the genus

*Malacoscyclus* has some similar genera in Hemilophini, as defined by Martins & Galileo (1991a), where they discussed the differences with *Tyrinthia* Bates, 1886, and described two related genera to comprise species classified in *Malacoscyclus* at that time: *Lamacoscyclus* Martins & Galileo, 1991 and *Sybaguasus* Martins & Galileo, 1991. Although this and other works (Martins & Galileo 1991b, 2014b; Galileo & Martins 1998) focusing on these genera are useful to separate each other and their species, they rely upon a series of shared characters, e.g., frons with projections in the males (some species of *Malacoscyclus*, *Sybaguasus*, and *Tyrinthia*), scape curved basally (*Malacoscyclus* and *Sybaguasus*), fringes of dense setae on the inner face of antennomeres III or III–IV (*Malacoscyclus* and *Tyrinthia*), presence of conspicuous dorsal striae on the elytron (forming a dorsal carina in some species of *Lamacoscyclus*), and body length short in general (Martins & Galileo 1991a, 2014b). There are so far no phylogenetic studies on these genera, and possibly at least part of them are paraphyletic or polyphyletic. We hope for future phylogenetic and revision works focused on these genera to better understand the relationships among them and the classification of their species. In *Malacoscyclus*, many species present a coloration pattern similar to net-winged beetles (Lycidae) (e.g., *M. cirratus* and *M. auricomus*), varying between dark and yellow shades, especially noticeable in the pronotum and elytron, besides the presence of distinct elytral striae (Linsley 1961). The new species also presents this coloration pattern. Besides, apparently, some species are similar to fireflies (Lampyridae) in their coloration pattern (e.g., *M. fasciatus*, *M. nearnsi*, and *M. xanthotaenius*) (see photos in Bezark 2025).

Tribe Onciderini Thomson, 1860

Genus *Lachnia* Audinet-Serville, 1835

*Lachnia* Audinet-Serville, 1835: 63.

*Vervex* Gistel, 1848: 132 (unnecessary replacement name).

*Lachnia* – Chevrolat in D’Orbigny 1846: 720. — Strauch 1861: 136 (cat.). — Thomson 1864: 62 (desig.). — Gemminger & Harold 1873: 3043 (cat.). — Aurivillius 1923: 341 (cat.). — Dillon & Dillon 1945: 11 (rev.). — Blackwelder 1946: 603 (checklist). — Monné 1994a: 3 (cat.); 2005: 562 (cat.); 2012: 111 (cat.); 2024: 984 (cat.). — Monné & Hovore 2006: 279 (checklist). — Bezark 2024: 331 (checklist). — Tavakilian & Chevillotte 2024 (cat.). — Roguet 2025 (cat.).

*Vervex* – Gistel & Bromme 1850: 432 (unjustified name).

**Type species**

*Lachnia subcincta* Audinet-Serville, 1835 (subsequent designation by Thomson 1864).

*Lachnia subcincta* Audinet-Serville, 1835

Figs 1B, 2

*Lachnia subcincta* Audinet-Serville, 1835: 64.

*Ischiocentra fulvo-irrorata* Thomson, 1868b: 56.

*Lachnia subcincta* – Strauch 1861: 136 (cat.). — Thomson 1864: 62. — Gemminger & Harold 1873: 3043 (cat.). — Waterhouse 1882: 13, pl. 5. — Aurivillius 1923: 341 (cat.). — Dillon & Dillon 1945: 12 (rev.). — Blackwelder 1946: 603 (checklist). — Martins & Galileo 1990: 83 (syn., distr.). — Galileo & Martins in Rafael 1991: 330 (distr.). — Monné 1994a: 3 (cat.); 2005: 562 (cat.); 2024: 984 (cat.). — Monné & Giesbert 1994: 199 (checklist). — Monné & Hovore 2006: 279 (checklist). — Morvan & Morati 2006: 48 (distr.). — Morvan & Roguet 2013: 30 (distr.). — Bezark 2024: 331 (checklist). — Tavakilian & Chevillotte 2024 (cat.). — Roguet 2025 (cat.).

*Ischiocentra fulvo-irrorata* – Gemminger & Harold 1873: 3122 (cat.). — Thomson 1878: 12 (type). — Nears & Tavakilian 2015: 16, fig. 63a–b.

*Ischiocentra fulvoirrorata* – Aurivillius 1923: 343 (cat.). — Blackwelder 1946: 603 (checklist).

*Hesychotypa fulvoirrorata* – Dillon & Dillon 1945: 169, pl. 6 fig. 14 (rev.). — Breuning 1961: 212 (cat.).

*Lachnia subvincta* – Breuning 1961: 207 (cat., misspell.).

**Material examined**

BRAZIL – Ceará [new state record] • 1 ♀; Guaramiranga, REVIS [Refúgio da Vida Silvestre] Periquito Cara Suja; [4°13'47" S, 38°57'32" W]; 2 Feb. 2024; active collection; A.A. Mota *et al.* leg.; DZUP 324386.

**Comments**

*Lachnia* is a monotypic genus typical from the Amazon, hence the new record of *Lachnia subcincta* from Ceará represents the first record of the species for the Northeast Region. The species is distributed in Ecuador, French Guiana, and Brazil (Amazonas, Pará, Roraima, and now Ceará) (Fig. 2) (Monné 2024; Tavakilian & Chevillotte 2024).

**Discussion**

Among the biomes present in the Brazilian Northeast, the main coverage is the Caatinga, characterized by a semiarid climate and low rainfall levels, being the largest and most diverse seasonally dry tropical

forest in the Americas (Silva *et al.* 2017). In our work, *Apagomerella nordestina* sp. nov. was described from a typical area of Caatinga in Pernambuco, while *Malacoscyllus licae* sp. nov. was described from Amargosa (Bahia), a municipality located in a transitional region between Atlantic Forest and Caatinga (IBGE 2024) (Fig. 2).

The new record of *Acanthoderes (Acanthoderes) daviesii* was made from a typical Atlantic Forest area in the Greater Recife region (Pernambuco) (Fig. 2). In its turn, the new record of *Lachnia subcincta* from Guaramiranga (Ceará) (Fig. 2), consists of a remnant rainforest fragment at high altitude enclosed in the Caatinga, named Baturité Massif (Souza & Oliveira 2006). This type of phytophysiognomy is composed of relict vegetation, isolated during the Quaternary events when the Atlantic Forest and Amazon were connected (Auler *et al.* 2004; Ledo & Colli 2017). For this reason, in these rainforest fragments, species typically known from the Amazon and Atlantic Forest are frequently registered, such as *L. subcincta* in our work, a species hitherto known only from the Amazon. With respect to Lamiinae, recently Simões *et al.* (2024) recorded *Anisopodus batesi* Gilmour, 1965 and *Oncideres intermedia* Dillon & Dillon, 1946 from the Baturité Massif, both species previously thought to be endemic to the Amazon, before their contribution.

We hope there will be further studies focused on describing and recording species of Cerambycidae in the Brazilian Northeast Region, aiming to diminish the Linnean and Wallacean shortfalls related to the region, as well as new taxonomic works in other regions from Brazil.

## Acknowledgements

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