

RESEARCH PAPER

Review of the genus *Cupecuara* (Coleoptera: Disteniidae)

Juan Pablo BOTERO^{1,2)} & Antonio SANTOS-SILVA^{1,3)}

¹⁾ Museu de Zoologia, Universidade de São Paulo, São Paulo, SP, Brazil

²⁾ e-mail: jp_bot@yahoo.com; Orcid ID: <http://orcid.org/0000-0002-5547-7987>

³⁾ e-mail: toncriss@uol.com.br; Orcid ID: <https://orcid.org/0000-0001-7128-1418>

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Abstract. The genus *Cupecuara* Santos-Silva & Tavakilian, 2009 is reviewed and redescribed, and *C. erwini* sp. nov. from Ecuador is described. The genus is now composed of six species distributed in Central and South America. Photographs of *Cupecuara* species are included and a key is provided to differentiate them. Furthermore, the male terminalia are illustrated and described for the first time in the genus.

Key words. Coleoptera, Disteniidae, Disteniini, key, new species, taxonomy, Ecuador, Neotropical Region

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Introduction

Cupecuara was described by SANTOS-SILVA & TAVAKILIAN (2009) to include some species originally placed in *Cometes* Lepeletier & Audinet-Serville, 1828: *Cupecuara argodi* (Belon, 1896); *C. soledari* (Martins & Galileo, 2001); *C. pojuca* (Martins & Galileo, 2001); and *C. turnbowi* (Hovore & Santos-Silva, 2007); of these, *C. argodi* was designated as the type species. The South American species were revised by SANTOS-SILVA & MARTINS (2011), excluding only *C. turnbowi*, known from Panama. Later, AUDUREAU (2014) described *C. santossilvai* from Peru.

Currently, the genus is composed of these five species, which are distributed in the Neotropical Region, and present in the following countries: Panama, northern Brazil, Peru, and Bolivia.

Herein, a new species from Ecuador is described, which also constitutes the first record of the genus in this country, and the male genitalia of *C. argodi* and *C. erwini* sp. nov. are described and illustrated for the first time. Additionally, all six described species are illustrated and a key to their identification is provided.

Material and methods

Photographs were taken in the MZSP with a Canon EOS Rebel T3i DSLR camera with a Canon MP-E 65mm f/2.8 1–5× macro lens, controlled by Zerene Stacker AutoMontage software. Measurements were taken using a Hensoldt/

Wetzlar – Mess 10 measuring ocular mounted on a Leica MZ6 stereomicroscope.

Label data are transcribed verbatim and additional comments or explanations are placed in square brackets. A single vertical bar separates rows within each label and a double vertical bar separates individual labels.

References on known species are restricted to the original descriptions, new combinations, and omissions in the catalog of MONNÉ (2020), in which the remaining references are available.

The acronyms used in the text are as follows:

ACMT	American Coleoptera Museum (James Wappes' personal collection), San Antonio, Texas, USA;
CSCA	California State Collection of Arthropods, Sacramento, California, USA;
IAVH	Instituto de Investigaciones de Recursos Biológicos 'Alexander von Humboldt', Villa de Leyva, Colombia;
MNHN	Muséum national d'Histoire naturelle, Paris, France;
MPEG	Museu Paraense Emilio Goeldi, Belém, Brazil;
MZSP	Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil;
NMNH	National Museum of Natural History, Smithsonian Institution, Washington, DC, USA.

Results

Cupecuara Santos-Silva & Tavakilian, 2009

Cupecuara Santos-Silva & Tavakilian, 2009: 15 (original description).
MONNÉ (2020): 208 (catalog); BEZARK (2020): 7 (checklist).



Type species. *Cometes argodi* Belon, 1896 by original designation.

Redescription. SANTOS-SILVA & TAVAKILIAN (2009) described *Cupecuara* as follows (translated from the original): ‘Integument somewhat shiny. Head proportionally small or not in relation to body, narrowed or slightly narrowed toward prothorax behind eye. Dorsal surface of head slightly convex between eyes; punctures coarse, sparse (sometimes partially confluent) or slightly denser, somewhat deep; setae decumbent, sparse or very sparse (sometimes a few erect setae present close to eyes), and often with a few long, erect setae close to base of antennal tubercles. Median groove well marked or not, surpassing or not posterior margin of eyes. Eyes wide; upper eye lobes as distant from each other as width of lobe (at most, distance slightly wider than lobe), surpassing base of antennal tubercles. Antennae longer than body in both sexes. Scape reaching or almost reaching apex of lateral tubercles of prothorax in both sexes (sometimes surpassing); in males, slenderer and more sinuous on outer surface than in females. Antennomere III distinctly shorter than scape, just longer than IV. Antennomeres gradually widening from III to VII (widening from slightly to distinctly), and gradually narrowing from VIII to XI. Last segment of maxillary palpomeres in male strongly widened toward apex, which is truncate; frontal depression just narrow; in female, fusiform. Prothorax elongate (not considering lateral tubercles); lateral tubercles small, placed in about middle or slightly closer to posterior than anterior margin, often strongly acute at apex. Pronotum coarsely or moderately finely punctate; punctures abundant, partially confluent or not, except on central gibbosity and, sometimes, on anterolateral and posterolateral gibbosities; gibbosities slightly distinct; setae short or very short, sparse or slightly sparse; disk flat or slightly convex; declivity of pronotal disk toward lateral tubercles gradual. Elytra in both sexes moderately coarsely punctate throughout (especially between lateral carina and epipleura); setae very short and very sparse on anterior 2/3, distinctly longer and sparse on distal third; apex rounded (sometimes, rounded together); elytral carina distinct or slightly distinct. Femora with setae decumbent and a few erect setae, slender and sparse. Metafemora fusiform or slightly fusiform. Inner and outer apex of meso- and metafemora with rounded lobe. Protibiae widened or slightly widened in inner apex (widening gradual).’

Additional characters: maxillary palpomere IV in females may be subcuneiform, with oblique apex; eyes coarsely faceted; prosternal process narrow but not laminiform; antennomere III sometimes as long as IV; elytral apex sometimes almost obliquely truncate; apex of lateral tubercles of prothorax often turned upward; trochanters without modifications.

Differential diagnosis. The genus can be differentiated by the following combinations of characters: eyes wide, distance between upper eye lobes smaller than twice the width of an upper lobe; antennomeres gradually widened from III to VII; lateral tubercles of prothorax placed medially; protibiae not or slightly widened at apex; femora with setae decumbent and few erect setae, slender and sparse.

Cupecuara resembles *Abauba* Santos-Silva & Tavakilian, 2009 in the integument moderately shiny and in the distance of the upper ocular lobes, but differs in the lateral tubercles of prothorax located medially (closer to the posterior margin than the central region in *Abauba*), and the elytral punctation uniformly distributed (distinctly sparser on posterior third in *Abauba*).

Cupecuara can be easily differentiated from *Cometes* by the protibiae not or slightly widened at apex. In *Cometes* the protibiae are abruptly widened at apex.

Key to species of *Cupecuara*

- 1 Elytra predominantly dark with humeral yellow macula or stripe reaching epipleura laterally. Figs 1–9. Brazil (Pará, Rondônia). *C. pojuca* (Martins & Galileo, 2001)
 - Elytra predominantly yellow or orange with two or three isolated dark areas. 2
- 2 Dorsal surface of elytra with dark area restricted to a single continuous stripe along the suture, reaching apex or at least the apical eight. 3
 - Dorsal surface of elytra with two isolated dark patches. 4
- 3 Head, prothorax and ventral side of body pale brown; pronotum densely and uniformly punctate; lateral tubercles of prothorax distinctly acute at apex; dark stripes on dorsal surface of elytra and along epipleural margin reaching apex. Figs 10–17. Panama (Panamá). *C. turnbowi* (Hovore & Santos-Silva, 2007)
 - Head, prothorax and ventral side of body violaceous with greenish reflections in some areas; pronotum sparsely punctate, punctures concentrated laterally, on anterior and posterior margins, and around the central gibbosity; lateral tubercles of prothorax rounded at apex; dark stripes on dorsal surface of elytra and close to epipleural margin not reaching apex. Figs 18–37. Ecuador (Napo). *C. erwini* sp. nov.
- 4 Anterior black patch on dorsal surface of elytra elongate-triangular, with its widest area situated at base. Fig. 38. Peru (Pasco, Junín). *C. santossilvai* Audureau, 2014
 - Anterior black patch on dorsal surface of elytra rounded or ovoid, with its anterior area narrow and gradually widened (often the widening is rounded). 5
- 5 Sides of elytra lacking dark stripe close to the epipleural margin. Figs 39–42. Bolivia (La Paz). *C. soledari* (Martins & Galileo, 2001)
 - Sides of elytra with dark stripe close to epipleural margin. Figs 43–62. Peru (Junín), Bolivia (Cochabamba). *C. argodi* (Belon, 1896)

Cupecuara pojuca (Martins & Galileo, 2001)

(Figs 1–9)

Paracometes pojuca Martins & Galileo, 2001: 17 (original description).

Cometes pojuca: SANTOS-SILVA & MARTINS (2004): 147 (transfer).

Cupecuara pojuca: SANTOS-SILVA & TAVAKILIAN (2009): 16 (transfer); MONNÉ (2020): 208 (catalog); BEZARK (2020): 7 (checklist).

Type locality. Brazil, Pará, Serra Norte, Igarapé Pojuca.

Type material examined. HOLOTYPE (Fig. 1): ♀, ‘Brasil, Pará: Serra Norte (Igarapé Pojuca), 4.xi.1983 (armadilha suspensa a 2 m de altura



Figs 1–9. *Cupecuara pojuka* (Martins & Galileo, 2001). 1 – holotype female, dorsal view. 2–5 – male: 2 – dorsal view; 3 – ventral view; 4 – lateral view; 5 – frontal view. 6–9 – female: 6 – frontal view; 7 – dorsal view; 8 – ventral view; 9 – lateral view.



Figs 10–17. *Cupecuara turnbowi* (Hovore & Santos-Silva, 2007). 10–13 – male: 10 – dorsal view; 11 – ventral view; 12 – lateral view; 13 – frontal view. 14–17 – female, paratype: 14 – frontal view; 15 – dorsal view; 16 – ventral view; 17 – lateral view.

[= suspended trap at 2 m height])' (MPEG). The holotype was examined through photographs and the label data are given as they appeared in the original description.

Additional material examined. BRAZIL: RONDÔNIA: Ouro Preto do Oeste, viii.1980, 1 ♂, B. Silva leg. (MZSP), xi.1983, 1 ♀, Becker, Roppa & Silva leg. (MZSP); 62 km SW of Ariquemes, Fazenda Rancho Grande, 8.x.1993, 1 ♂, no collector indicated (MZSP).

Distribution. Brazil (Rondônia and Pará).

Remarks. This species was described based on a single female (Fig. 1) from Brazil (Pará). According to the original description (translated): 'We only know a female of *Paracometes pojuka*; therefore, its allocation in *Paracometes* is uncertain. We preferred to include it in this genus by exclusion, that is, because it does not coincide with the description of any of the four species known in *Pseudocometes*.' SANTOS-SILVA & MARTINS (2004) transferred it to *Cometes* Lepeletier & Audinet-Serville, 1828, because they synonymized *Paracometes* with *Cometes*, and recorded the species for the Brazilian state of Rondônia. A few years later, SANTOS-SILVA & TAVAKILIAN (2009) revalidated *Paracometes* and transferred *Paracometes pojuka* to their new genus *Cupecuara*.

HOVORE & SANTOS-SILVA (2007b) and SANTOS-SILVA & MARTINS (2010) wrongly listed the species for the Brazilian state of Amapá instead of Pará. Therefore, we formally exclude Amapá from the distribution range of *P. pojuka* and present new records from the state of Rondônia.

As already reported by HOVORE & SANTOS-SILVA (2007b), the yellowish-brown area of the elytra is very variable in this species and can be restricted only to the area around the humeri or can extend to the posterior quarter.

Cupecuara turnbowi (Hovore & Santos-Silva, 2007)

(Figs 10–17)

Cometes turnbowi Hovore & Santos-Silva, 2007a: 94 (original description).

Cupecuara turnbowi: SANTOS-SILVA & TAVAKILIAN (2009): 16 (transfer); MONNÉ (2020): 208 (catalog); BEZARK (2020): 7 (checklist).

Type locality. Panama, Panamá Province, Isla Barro Colorado, 9°9'N, 79°51'W.

Type material examined. PARATYPE: ♀, 'PANAMA: C[anal].Z[one]. | BCI [Barro Colorado Island], 9°9'N, 79°51'W | 980520- 980603 | Pickering & Windsor || malaise | trap' (MZSP).

Additional material examined. PANAMA: PANAMÁ: Fort Kobbe, 25.v.1984, 1 ♂, E. Giesbert leg. (MZSP); Bayano dist., 3 km W of Ipeti, 30.iv.–4.v.1992, 1 ♂, E. Giesbert leg. (MZSP).

Distribution. Panama (Panamá Province).

Remarks. This species was described based on three females from Panama and the holotype is deposited at ACMT. The main differences between male and female are similar as found in the other species of the genus: scape slender in the basal area, sinuous dorsally (uniformly widened toward apex in female); abdominal ventrite IV slightly narrowed toward apex (distinctly narrowed in female); and abdominal ventrite V wider (clearly narrower in female). Additionally, maxillary palpomere IV campaniform (subcuneiform, with oblique apex in female), and posterior margin of the abdominal ventrite V emarginated centrally, while it is slightly rounded in female.

The elytra were described by HOVORE & SANTOS-SILVA (2007a) as follows (translated): 'Elytra reddish, subopaque,

with blackish areas: wide band, which starts at base, follows along suture, surrounds apex and returns through epipleura to base of humeri; another small, longitudinal, placed in apical third.' In the male examined, the black area of the elytral apex is somewhat larger, and the longitudinal band on sides of the posterior third is fused with it.

Cupecuara erwini sp. nov.

(Figs 18–37)

Type locality. Ecuador, Napo, Reserva Ethnica Waorani, 1 km S of Onkone Gare Camp, 00°39'10"S 76°26'00"W, 220 m a.s.l.

Type material. HOLOTYPE: ♂, 'ECUADOR: NAPO Res. Ethnica | Waorani, 1 km S. Onkone Gare | Camp, Trans.Ent., 9 Oct. 1994 | 220m 00°39'10"S 76°26'W | T.L. Erwin, et al.' (MZSP). PARATYPES: 3 ♂♂ 3 ♀♀, same data as holotype (MZSP); ♂, same data as holotype, except '6.x.1995' (MZSP); 2 ♂♂ 1 ♀, same data as holotype except '8.x.1995' (♂ in IAVH: IAVH-E-203781, ♀ ♀ in MZSP); 1 ♂, same data as holotype, except '2.x.1996' (MZSP); 1 ♀, same data as holotype except '4.x.1996' (MZSP). All specimens with the following additional information: 'Insecticidal fogging of mostly bare green leaves, some with covering of lichenous or bryophytic plants in terre firme forest (Project MAXUS)'.

Description. Holotype male (Figs 18–21). Integument mostly violaceous with greenish reflections in some areas; mouthparts mostly reddish brown, with some areas brownish, except for maxillary palpomeres III–IV and labial palpomere III that are brown with apex reddish brown; anterior area of postclypeus and anteclypeus brownish; posterior area of labrum brown, and anterior area yellowish brown; anterior area of intermaxillary process reddish brown; antennomere III dark violaceous, and remaining antennomeres black; elytra yellowish brown except for longitudinal violaceous band dorsally, from base to posterior seventh (mostly along suture), gradually widened in anterior fifth, gradually narrowed from this point to its apex, and for dark brown band with violaceous reflections laterally close to epipleural margin, from base to about middle; coxae mostly brownish, with reddish brown and yellowish brown areas; trochanters pale yellow; base of femora pale yellow, gradually becoming brown to near middle, then mostly violaceous; tibiae and tarsi dark brown, with slightly violaceous reflections. Yellowish white setae that can appear whiter depending on light intensity.

Head. Frons narrow, vertical, smooth, glabrous centrally; finely, sparsely punctate laterally, with short, decumbent yellowish-white seta emerging from each puncture. Area between antennal tubercles smooth, glabrous. Vertex and area behind upper eye lobes coarsely, abundantly punctate, punctures becoming slightly finer toward prothoracic margin; with minute yellowish-white seta emerging from nearly every puncture except for punctures close to antennal tubercles that bear short setae, and a few long, erect setae, and one long, erect seta on each side close to eyes. Area behind lower eye lobes tumid close to eye; finely, transversely striate-punctate; with a few long, erect, yellowish-white setae on tumid area, glabrous close to prothorax. Genae finely, transversely striate-punctate; with short, sparse yellowish-white setae; apex flap-shaped. Gula mentum smooth, glabrous in posterior third, finely, very sparsely punctate, with a few long, erect yellowish-white setae between anterior sulcus and posterior third, finely,



Figs 18–25. *Cupecuara erwini* sp. nov. 18–21 – holotype male: 18 – dorsal view; 19 – ventral view; 20 – lateral view; 21 – frontal view. 22–25 – paratype female: 22 – frontal view; 23 – dorsal view; 24 – ventral view; 25 – lateral view.

sparsely punctate in anterior sulcus and base of intermaxillary process; with both, short and long, erect yellowish-white setae in posterior area of intermaxillary process. Postclypeus large, mostly subhorizontal, convex, finely, sparsely punctate (punctures nearly absent anteriorly); with both, short and long, moderately sparse yellowish-white setae directed forward. Anteclypeus distinctly separated from postclypeus. Labrum finely, somewhat abundantly punctate, central area semicircularly depressed; with both, short and long erect yellowish-brown (possibly appearing lighter depending on light intensity) setae directed forward; anterior margin with fringe of yellowish-brown setae. Maxillary palpomere IV campaniform, with its frontal area subelliptical. Upper eye lobes moderately narrowed at rounded apex. Distance between upper eye lobes 0.22 times length of scape (0.34 times distance between outer margins of eyes); in ventral view, distance between lower eye lobes 0.41 times length of scape (0.62 times distance between outer margins of eyes). Antennae 2.20 times elytral length, reaching elytral apex near middle of antennomere VII. Scape reaching middle of lateral tubercle of prothorax; finely, somewhat abundantly punctate dorsally and laterally, punctures slightly sparser near apex, sparsely punctate ventrally; with short, decumbent yellowish-white setae, distinctly sparse ventrally. Antennomeres rugose-punctate, especially from V. Antennal formula based on antennomere III: scape = 1.31; pedicel = 0.12; IV = 1.00; V = 1.00; VI = 0.97; VII = 0.87; VIII = 0.81; IX = 0.69; X = 0.62; XI = 0.81.

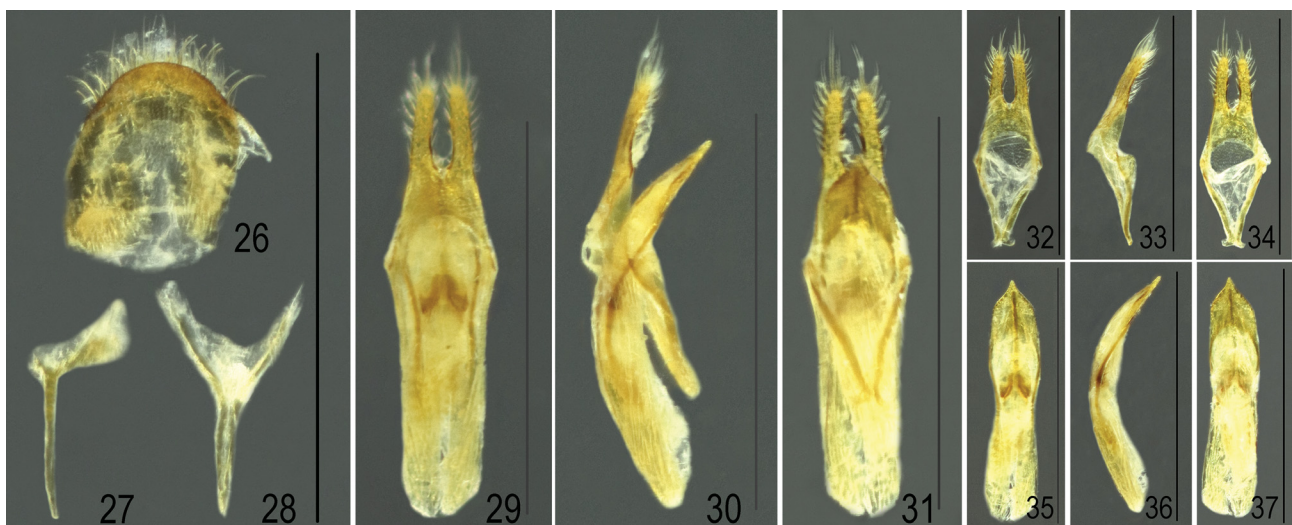
Thorax. Prothorax slightly wider than long (including lateral tubercles); lateral tubercles large, with narrow rounded apex; anterior and posterior margins of subequal length. Pronotum with gibbosities slightly elevated, antero- and posterolateral ones irregular; coarsely, abundantly punctate, punctures sparser on anterolateral gibbosities, absent on central gibbosity, partially confluent laterally; with a few long, erect yellowish-white setae near antero- and posterolateral angles. Sides of prothorax coarsely,

confluently punctate in wide central area, nearly smooth in narrow posterior area, transversely striate anteriorly (this area gradually widened toward prosternum); glabrous. Prosternum finely striate punctate on sides of posterior half, smooth in center of posterior half, transversely striate in anterior half, more so in anterior third; with sparse, long, erect yellowish-white setae close to base of prosternal process, a few short yellowish-white setae on sides of posterior half, and a few long, erect yellowish-white setae in anterior third. Prosternal process gradually narrowed from base to near middle, narrow, parallel-sided in posterior half. Mesoventrite with short, decumbent, sparse yellowish-white setae, except glabrous sides. Mesanepisternum, mesepimeron, and metanepisternum with abundant, decumbent, both long and short yellowish setae. Metaventricle somewhat coarsely and abundantly punctate laterally, punctures gradually finer, sparser toward smooth central area; with long, decumbent yellowish-white setae, closer to metanepisternum, gradually sparser toward glabrous central area. Scutellum with a few minute yellowish setae laterally.

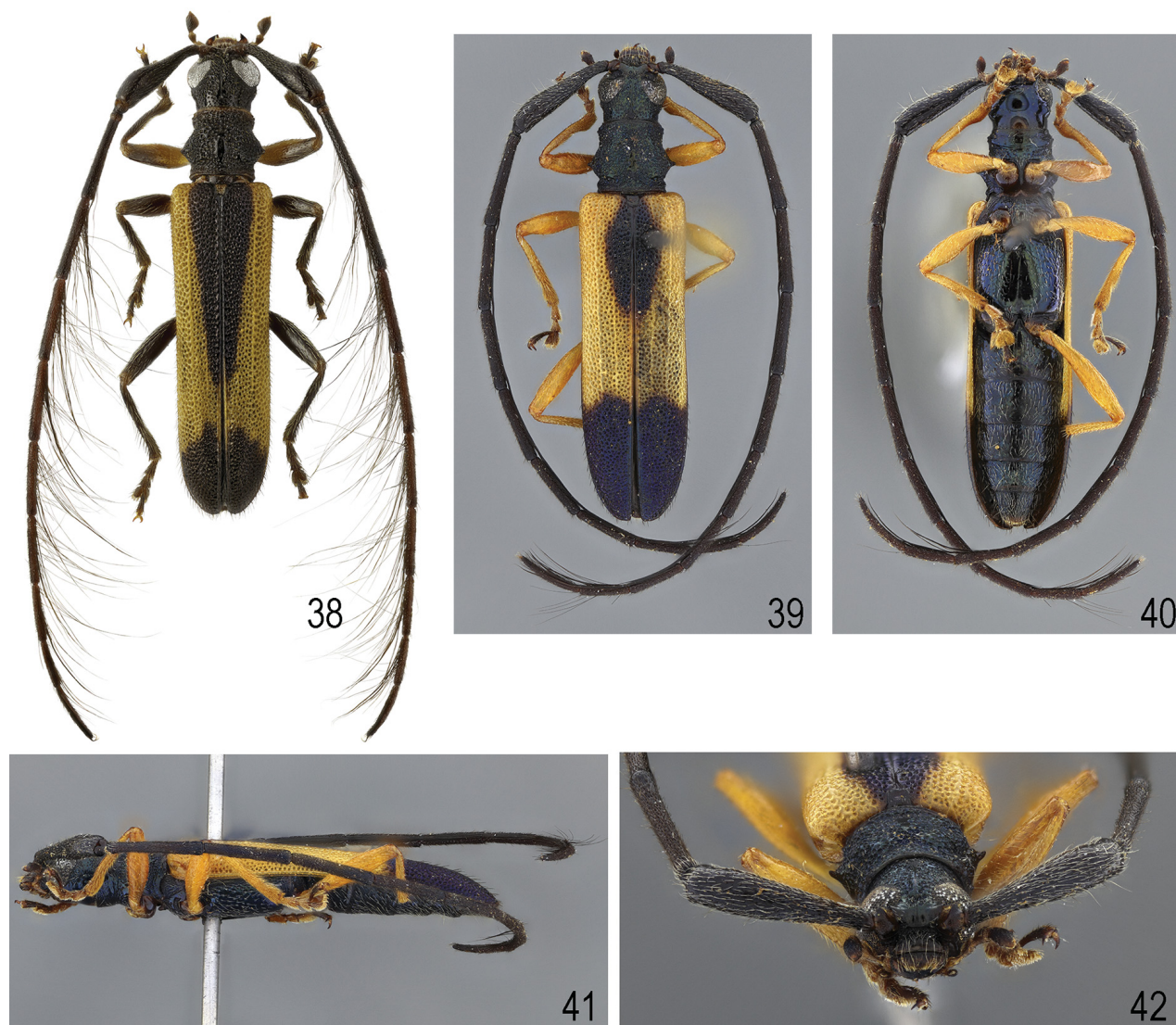
Elytra. Coarsely, abundantly punctate, punctures slightly, gradually finer and sparser toward apex; with a few short yellowish-brown setae in anterior half, longer, more abundant in posterior half and on sides of posterior third; apex nearly obliquely truncate, with rounded outer angle.

Legs. Femora with long, decumbent, somewhat sparse yellowish-white setae, forming sparse fringe on dorsal apex. Protibiae with sparse, decumbent yellowish-white setae, except for ventral side of posterior third that bears dense yellowish-brown setae; mesotibiae with sparse yellowish-white setae in anterior half, with dense yellowish-brown setae in posterior half; metatibiae with sparse yellowish-white setae in anterior 2/3, with somewhat dense yellowish-brown setae in posterior third. Metatarsomere I shorter than II–III together.

Abdomen. Ventrites somewhat finely, sparsely punctate, except for smooth apex of I–IV; with long, decumbent, somewhat sparse yellowish-white setae, with a few long,



Figs 26–37. *Cupecuara erwini* sp. nov., male. 26 – tergite VIII. 27 – sternite VIII. 28 – ventral arc. 29–31 – tegmen + median lobe: 29 – dorsal view; 30 – lateral view; 31 – ventral view. 32–34 – tegmen: 32 – dorsal view; 33 – lateral view; 34 – ventral view. 35–37 – median lobe: 35 – dorsal view; 36 – lateral view; 37 – ventral view. Scale bars = 1 mm.



Figs 38–42. 38 – *Cupecuara santossilvai* Audureau, 2014, male, dorsal view. 39–42 – *C. soledari* (Martins & Galileo, 2001), holotype female: 39 – dorsal view; 40 – ventral view; 41 – lateral view; 42 – frontal view.

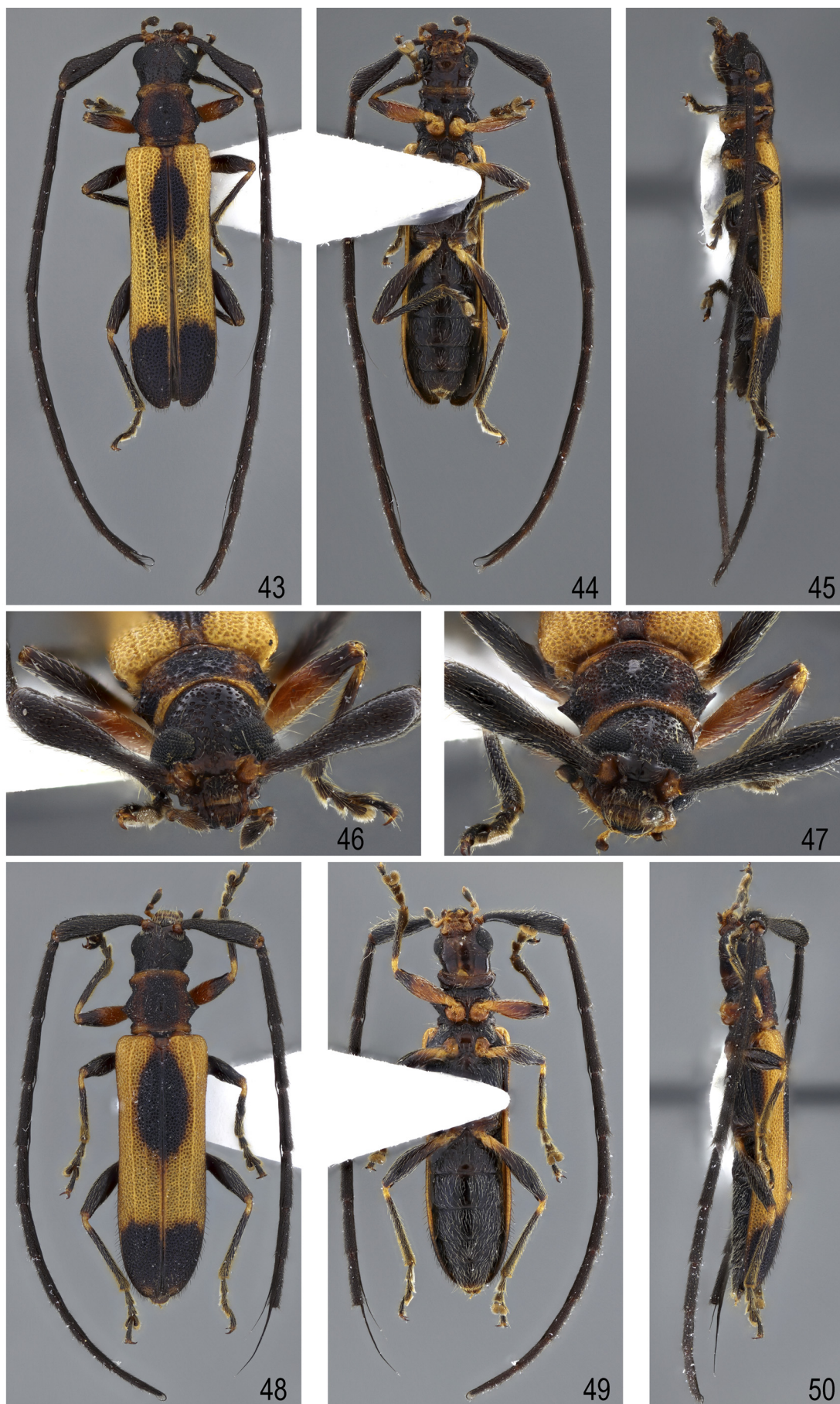
erect setae of same color interspersed, except for apex of ventrite V that bears yellowish-brown setae; posterior margin of ventrite V truncate, slightly concave centrally.

Terminalia. Tergite VIII (Fig. 26) with distal margin curved and lined with short yellow setae, mainly medially. Sternite VIII (Fig. 27, broken during the dissecting process) transverse; apophysis long, about three times as long as sternite. Ventral arc (Fig. 28) fork-shaped, with apophysis short; arms curved. Dorsal arc was not found in the dissected specimen. Tegmen (Figs 32–34) slightly shorter than median lobe; distal region completely divided into parameres; parameres cylindrical-elongated, internal margin slightly curved, apex rounded and bearing both short and long setae; ring piece elongated, without projection. Median lobe (Figs 35–37) notably curved in lateral view; dorsal lobe with apex rounded and not reaching curved apex of ventral lobe.

Female (Figs 22–25). Maxillary palpomere IV subcuneiform, with oblique apex; abdominal ventrite IV distinctly narrowed toward apex, and apex of abdominal ventrite V rounded.

Dimensions (in mm). Holotype male. Total length, 8.20; prothoracic length, 1.25; anterior prothoracic width, 1.10; posterior prothoracic width, 1.15; maximum prothoracic width (between apices of lateral tubercles), 1.35; humeral width, 1.70; elytral length, 5.70. Paratypes male ($n = 7$) / female ($n = 5$). Total length, 8.14 ± 0.51 / 9.43 ± 0.92 ; prothoracic length, 1.24 ± 0.08 / 1.46 ± 0.11 ; anterior prothoracic width, 1.09 ± 0.07 / 1.24 ± 0.11 ; posterior prothoracic width, 1.19 ± 0.12 / 1.36 ± 0.15 ; maximum prothoracic width (between apices of lateral tubercles), 1.43 ± 0.08 / 1.61 ± 0.21 ; humeral width, 1.76 ± 0.10 / 1.97 ± 0.22 ; elytral length, 5.73 ± 0.36 / 6.62 ± 0.54 .

Differential diagnosis. *Cupecuara erwini* sp. nov. is similar to *C. turnbowi*, but differs from it in the integument mostly violaceous with greenish reflections in some areas; pronotum with sparsely distributed punctures, concentrated laterally, on anterior and posterior margins, and around the central gibbosity; lateral tubercles of prothorax with rounded apex; and in elytra with longitudinal dark stripe on the suture and dark band close to epipleural margin not reaching apex. In *C. turnbowi*, the integument is mostly



Figs 43–50. *Cupecuara argodi* (Belon, 1896). 43–46 – male: 43 – dorsal view; 44 – ventral view; 45 – lateral view; 46 – frontal view. 47–50 – paratype female: 47 – frontal view; 48 – dorsal view; 49 – ventral view; 50 – lateral view.

pale brown; pronotum is densely and uniformly punctate; lateral tubercles of prothorax are acute at apex; and the dark stripes on the dorsal surface of elytra and along the epipleural margin are reaching apex.

Etymology. This species is named after the late Terry Lee Erwin (1940–2020), collector of the type material of this new species, for his invaluable contribution to the study of Neotropical beetles.

***Cupecuara santossilvai* Audureau, 2014**

(Fig. 38)

Cupecuara santossilvai Audureau, 2014: 48 (original description). MONNÉ (2020): 208 (catalog); BEZARK (2020): 7 (checklist).

Type locality. Peru, Pasco Department, Oxapampa (Pozuzo).

Distribution. Peru (Junín and Pasco).

Remarks. This species was described based on two males from Pozuzo near Oxapampa (Pasco Dept., Peru) deposited in MNHN. Maxim Smirnov (Russia) has a single male collected at Satipo (Junín Dept., Peru) (Fig. 38), which constitutes a new department record. Examination of a photograph of the holotype, photograph of the specimen from the Smirnov collection, as well as photographs of two additional specimens (both females and not available for publication), shows that the black areas on elytra are somewhat variable: anterior macula reaching from middle to posterior third; posterior macula occupying the entire distal area or not reaching the sides; anterior margin of the posterior macula somewhat transverse or slightly projected forward along suture. Unfortunately, we have no specimens at our disposal to study.

***Cupecuara soledari* (Martins & Galileo, 2001)**

(Figs 39–42)

Cometes soledari Martins & Galileo, 2001: 16 (original description).

Cupecuara soledari: SANTOS-SILVA & TAVAKILIAN (2009): 16; MONNÉ (2020): 208 (catalog); BEZARK (2020): 7 (checklist).

Type locality. Bolivia, La Paz Department, Larecaja Province, Guanay-Uyapi, ca. 15.41°S, 67.85°W.

Type material examined. HOLOTYPE: ♀, ‘BOLIVIA: Beni | Uyapi: Guanay | X-XI - 1992’ (MZSP).

Distribution. Bolivia (La Paz and Santa Cruz).

Remarks. This species was described based on a single male specimen from Bolivia (MARTINS & GALILEO 2001). Uyapi (formally Colonia San José de Uyapi), is a small settlement ca. 10 km N of Guanay, province of Larecaja, department of La Paz. SANTOS-SILVA & TAVAKILIAN (2009) reported that the holotype is a female and not a male as stated in the original description.

***Cupecuara argodi* (Belon, 1896)**

(Figs 43–62)

Cometes Argodi Belon, 1896: 128 (original description). AURIVILLIUS (1912): 11 (catalog).

Cometes argodi: BLACKWELDER (1946): 558 (checklist); MONNÉ & GIESBERT (1994): 301 (checklist); MONNÉ & HOVORE (2006): 301 (checklist).

Cupecuara argodi: SANTOS-SILVA & TAVAKILIAN (2009): 16 (transfer); MONNÉ (2020): 208 (catalog); BEZARK (2020): 7 (checklist).

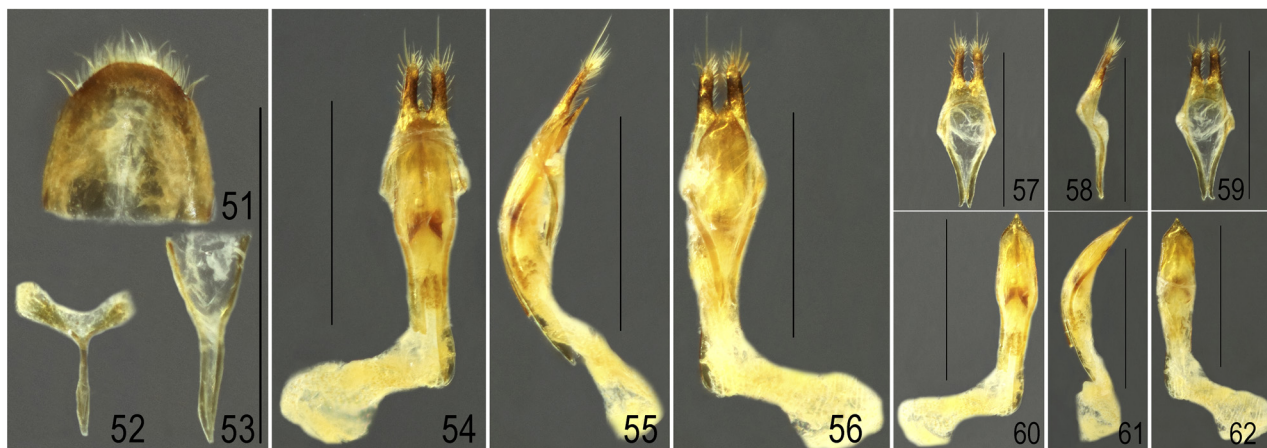
Type locality. Bolivia, Cochabamba.

Additional material examined. PERU: JUNÍN: Satipo, 1 ♂, no date indicated, A. Maller leg. (MZSP). BOLIVIA: SANTA CRUZ: Buena Vista, near hotel Flora & Fauna, 350 m, 14.xi.2003, 1 ♀, 15.xi.2003, 3 ♂♂, 24.xi.2003, 1 ♂, Nearn, Morris & Wappes leg. (MZSP).

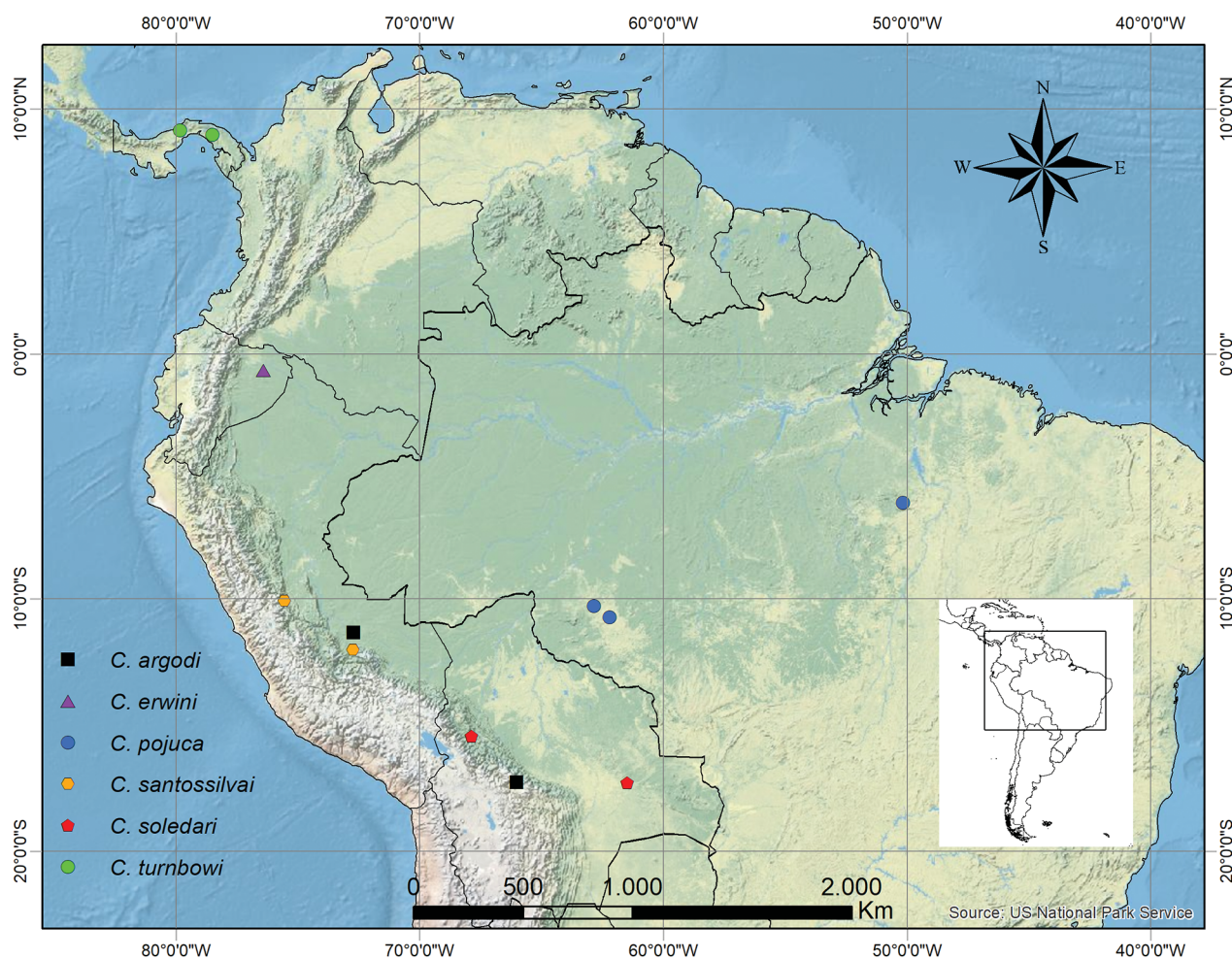
Distribution. Bolivia (Cochabamba, Santa Cruz) and Peru (Junín).

Remarks. This species was described based on a single specimen collected in Cochabamba, Bolivia by P. Germain and deposited in MNHN.

According to SANTOS-SILVA & MARTINS (2010) (translated): ‘Some differences pointed out by MARTINS & GALILEO (2001), to separate *C. argodi* from *C. soledari*, are variable in the former: legs black except for the base of profemora and the joints of all the tibiae that are yellowish; head, prothorax and the apical third of elytra are black, without metallic reflections. In fact, legs can be entirely dark brown or yellowish (including most surface) with dark areas, and head, prothorax and the apical third of elytra may be metallic with violaceous reflections.’ The only reliable difference between *C. argodi* and *C. soledari* appears to be the presence of dark maculae on sides close to the epipleural margin in the former, which is absent in the latter. It is very probable that these two nominal taxa are synonyms.



Figs 51–62. *Cupecuara argodi* (Belon, 1896), male. 51 – tergite VIII. 52 – sternite VIII. 53 – ventral arc. 54–56 – tegmen + median lobe: 54 – dorsal view; 55 – lateral view; 56 – ventral view. 57–59 – tegmen: 57 – dorsal view; 58 – lateral view; 59 – ventral view. 60–62 – median lobe: 60 – dorsal view; 61 – lateral view; 62 – ventral view. Scale bars = 1 mm.



Figs 63. Geographical distribution of *Cupecuara* species.

We observed chromatic variations as follows: anterior dark macula of elytra distinctly widened from the basal quarter to about middle. In addition, we present here description of male terminalia: Tergite VIII (Fig. 51) with distal margin curved and lined with short and some long yellow setae, mainly medially. Sternite VIII (Fig. 52, broken during the dissecting process) transverse; apophysis long, about three times as long as sternite. Ventral arc (Fig. 53) fork-shaped, with apophysis short, arms curved. Dorsal arc was not found in the dissected specimen. Tegmen (Figs 57–59) about 0.8 times length of median lobe; distal region completely divided into parameres; parameres cylindrical-elongated, ornate with erect short yellowish setae, apex rounded and bearing both short and long setae; ring piece elongated, proximal part connected only by narrow membrane, without projection. Median lobe (Figs 60–62) notably curved in lateral view; dorsal lobe with apex rounded and not reaching curved apex of ventral lobe; basal apophysis about $\frac{2}{3}$ length of apical region.

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