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On *Atrypanius cretiger* (White, 1855) and
Atrypanius punctatellus (Bates, 1872)
(Coleoptera: Cerambycidae: Lamiinae: Acanthocinini)

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On *Atrypanius cretiger* (White, 1855) and
Atrypanius punctatellus (Bates, 1872)
(Coleoptera: Cerambycidae: Lamiinae: Acanthocinini)

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Abstract. *Atrypanius punctatellus* (Bates, 1872) (Coleoptera: Cerambycidae: Lamiinae: Acanthocinini) is formally proposed as a junior synonym of *A. cretiger* (White, 1855). *Atrypanius cretiger* is redescribed and the type locality is confirmed as Colombia.

Key words. Neotropical region, synonymy, taxonomy.

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Introduction

Despite the large amount of work on Acanthocinini published in the past fifty years, the tribe still has many problems. This is particularly true with regard to the limits and definition of the genera. Due to the large number of species in this tribe, especially in the Neotropical region (146 genera and 1,138 species – Tavakilian and Chevillotte 2020; Roguet 2021), it is difficult to perceive eventual synonyms, which are often described in different genera.

Several species of the tribe seem to have a very wide geographical distribution, occurring in quite different biomes. For example, it is not rare to find species described from the Amazonian region in areas of the Brazilian Atlantic Rain Forest or in areas of northeastern Brazil where Caatinga, a dry forest, is predominant.

During the process of identification of specimens sent by several institutions and private collections, we found a synonymy in *Atrypanius* Bates, 1864, which, although already reported, was never formally established and remains partially forgotten in the current checklists and catalogs.

Materials and Methods

Photographs were taken in the MZSP with a Canon EOS Rebel T3i DSLR camera, Canon MP-E 65 mm f/2.8 1–5× macro lens, controlled by Zerene Stacker AutoMontage software. Measurements were taken in “mm” using measuring ocular Hensoldt/Wetzlar - Mess 10 in the Leica MZ6 stereomicroscope, also used in the study of the specimens.

References to *Atrypanius cretiger* refer only to the original descriptions. For complete references, see Monné (2021) and Tavakilian and Chevillotte (2020).

The acronym used in the text corresponds to Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil (MZSP).

Results

LAMIINAE Latreille, 1825

ACANTHOCININI Blanchard, 1845

Atrypanius cretiger (White, 1855)

(Fig. 2–11)

Leiopus cretiger White 1855: 381.

Nyssodrys punctatella Bates 1872: 219. **New synonym.**

Redescription. Male (Fig. 9–11). Integument mostly dark brown; apex of palpomeres reddish-brown; basal half of antennomeres III–VII light brown, and posterior half gradually darker toward apical dark brown quarter; antennomeres VIII–X pale brown on basal half, and posterior half brown toward dark brown narrow apical area; antennomere XI pale brown on basal half, brown on apical half.

Head. Frons, wide central area of postclypeus, antennal tubercles, vertex, and area behind eyes finely, somewhat sparsely punctate; with abundant pale yellow pubescence (yellowish on vertex and area behind eyes), except glabrous median groove, also with abundant small, glabrous, subcircular areas interspersed (less so on frons and absent on postclypeus); area close to eyes and central area of postclypeus with whitish pubescence interspersed; sides of postclypeus smooth and glabrous. Distance between upper eye lobes 0.11 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes superiorly 0.45 times distance between outer margins of eyes (0.60 times inferiorly). Antennae 2.7 times elytral length, reaching elytral apex at posterior seventh of antennomere V. Scape with abundant yellowish-white pubescence (slightly yellowish apically), and abundant small, glabrous, subcircular areas interspersed. Pedicel, basal $\frac{2}{3}$ of antennomere III and IV, basal half of V, VI, and XI, and basal third of VII–IX with abundant yellowish-white pubescence; remaining surface of antennomeres with sparse, slightly conspicuous pubescence, appearing to be darker due to integument color; pedicel and antennomere III with a few short, thick dark setae ventrally; antennomeres IV and V with a few short, thick dark setae throughout. Antennal formula based on antennomere III (only one male measured): scape = 0.98; pedicel = 0.11; IV = 0.90; V = 0.70; VI = 0.62; VII = 0.54; VIII = 0.57; IX = 0.57; X = 0.57; XI = 0.55.

Thorax. Prothorax transverse; sides uniformly rounded, widened from anterolateral angles to about middle, more distinctly and abruptly rounded from middle to lateral tubercles; lateral tubercles conical, proportionally small, placed at posterior fifth. Pronotum with row of coarse punctures anteriorly and posteriorly;

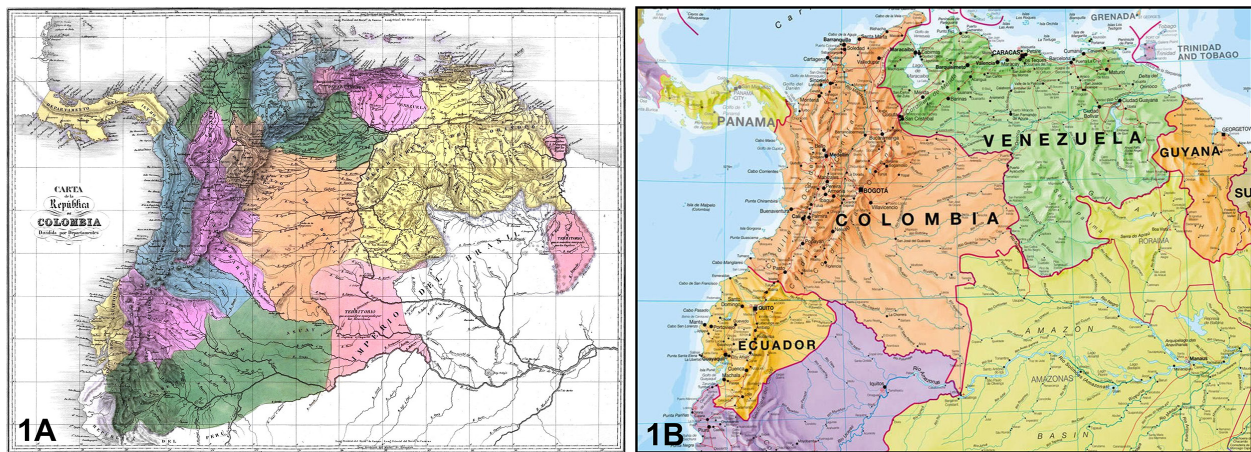


Figure 1. Map of northern South America and southern Central America. **1A)** Gran-Colombia in 1824 (Codazzi 1840). **1B)** The same region showing the current countries (adapted from Maps International, www.mapsinternational.com/).



Figures 2–11. *Atrypanius cretiger*. 2–3) *Leiopus cretiger* White, 1855 (= *Atrypanius cretiger*), holotype. 2) Dorsal habitus. 3) Oblique habitus. 4) *Nyssodrys punctatella* Bates, 1872 (= *Atrypanius cretiger*), lectotype, dorsal habitus. 5–8) Female from Costa Rica (Cartago). 5) Dorsal habitus. 6) Ventral habitus. 7) Lateral habitus. 8) Head, frontal view. 9–11) Male from Costa Rica (Limón). 9) Dorsal habitus. 10) Ventral habitus. 11) Lateral habitus. Figures 2–4 by Jesus Santiago Moure.

with yellowish-brown pubescent band on each side of middle, from near base to near apex, slightly S-shaped, with its interior area with greenish-brown pubescence superiorly and inferiorly, and central area mostly with grayish-white pubescence with yellowish pubescence interspersed; central area with grayish-white pubescence, and sides with irregular yellowish-brown pubescent areas, and pale yellow pubescence interspersed. Sides of prothorax with yellowish-brown pubescence, and small, glabrous, subcircular areas interspersed superiorly. Sides of prosternum with abundant yellow pubescence, and central area and prosternal process with grayish-white pubescence not obscuring integument. Narrowest area of prosternal process 0.24 times procoxal width. Ventral surface of mesothorax with abundant yellowish-brown pubescence laterally, partially with small, glabrous, subcircular areas interspersed, and central area with sparse grayish-white pubescence. Apex of mesoventral process 0.87 times mesocoxal cavity. Ventral surface of metathorax with abundant, decumbent, yellowish-brown pubescence (slightly paler toward central area of metaventrite), with small, glabrous, subcircular areas interspersed, and central area with abundant, yellowish-brown or brownish bristly setae. Elytra somewhat coarsely and abundantly punctate; mostly with irregular yellowish-brown pubescent maculae, with sparser, paler pubescence between them, except fragmented X-shaped white pubescent band, wider, denser on apex of its inferior arms; posterior half of sutural margin with white pubescence, and posterior third with small white pubescent maculae interspersed.

Legs. Femora and tibiae with yellowish pubescence (whiter on some areas), except greenish-brown pubescent macula near apex of dorsal surface of femoral clubs, and small, glabrous, subcircular areas interspersed.

Abdomen. Posterior region of ventrites I–IV with yellowish-brown pubescence, and remaining surface with grayish-white pubescence, except intercoxal process of ventrite I with yellowish-brown pubescence; sides, with small, glabrous, subcircular areas interspersed. Ventrite V about 1.5 times as long as IV; with grayish-white pubescence, and sides with small, glabrous, subcircular areas interspersed; posterior third gradually depressed toward apex; posterior margin, slightly concave.

Female (Fig. 5–8). Differs from male by the antennae slightly shorter, about 2.5 times elytral length; pubescence on central area of metaventrite white and decumbent; and abdominal ventrite V about 2.5 times as long as IV, narrowed apically.

Dimensions (mm) (4 males / 5 females). Total length, 9.10–10.80/8.95–11.35; prothoracic length, 1.70–2.15/1.30–1.70; anterior prothoracic width, 1.90–2.30/1.80–2.15; posterior prothoracic width, 2.30–2.90/2.05–2.70; maximum prothoracic width, 2.95–3.50/2.45–3.20; humeral width, 3.55–4.30/3.10–4.10; elytral length, 6.50–7.60/6.10–7.65.

Material examined. COSTA RICA, *Cartago*: Turrialba, 600 m, 1 female, 10.IX.1971, V.O. Becker leg. (MZSP); 2 males, 1 female, 15–30.IV.1973, V.O. Becker leg. (MZSP). *Limón*: near Cahuita town, 09.6827°N, 082.8105°W, 1 male, 1 female, VI.2015, A. Kozlov leg. (MZSP). PANAMA, *Panama Oeste*: Barro Colorado Island, 1 female, XI.1965, H. Britski leg. (MZSP); Cerro Campana, 3000', 1 male, 29.VII.1970, H. & A. Howden leg. (MZSP). COLOMBIA, *Antioquia*: SW Dabeiba, 780 m, 6°59'27"N, 76°16'28"W, 1 female, 17–18.III.2017, Sinyaev leg. (MZSP).

Remarks. White (1855) described *Leiopus cretiger* based on a single specimen from “Columbia” [Colombia]. However, between 1821 and 1831, the area currently known as Colombia was part of the Gran-Colombia (formally Republic of Colombia), which also included Panama, Ecuador, Venezuela, and part of the current territory of Brazil (Fig. 1). Therefore, based only on the information in the original description, it is not possible to be sure whether the holotype of *L. cretiger* was collected in the area currently corresponding to Colombia or in another area of the Republic of Colombia. However, according to Papavero (1971) on Justin Goudot (White [1855] indicated “Coll. Goudot”—not his brother Jules Prosper Goudot—Schatz et al. 2013): “Of Justin Goudot, who collected extensively in “Nueva Grenada” (Colombia), we have very meager information ... Goudot collected in the Magdalena Valley and other regions of Colombia. With Boussingault and Roulin he visited the regions of Cúcuta, Pamplona, Santa Rosa, Tunja and Bogotá, from 1822 to 1823. In 1824, he collected in the “llanos” of San Martín and then down to the mouth of the *Rio Meta* ... He spent 15 years in Colombia, returning to Paris in 1843, with rich collections.” Based on Papavero’s information we think it is possible to infer that the true type locality of *L. cretiger* is in the territory currently known as Colombia.

Horn and Kahle (1935) did not mention Goudot’s collection in the BMNH. However, apparently, Horn and Kahle (1935) confused the two brothers since it was Jules Prosper Goudot who collected in Africa. We do not

know how Adam White had access to the specimen used to describe the new species. However, White (1855) mentioned specimens collected by Goudot several times (some of which were described as new species).

Lacordaire (1872) suggested that *Leiopus cretiger* could belong to *Nyssodryus* Bates, 1864 (currently a synonym of *Atrypanius* Bates, 1864); Gilmour (1965) considered the genus as uncertain; and Martins (1973) formalized the inclusion of the species in *Atrypanius*. Monné (2021) reported the species as present in Mexico, Honduras, Nicaragua, Panama, and Colombia. Tavakilian and Chevillotte (2020) also reported Guatemala and Costa Rica.

Bates (1872) described *Nyssodryus punctatella* based on syntypes from Nicaragua. Later, Bates (1881) transferred the species to *Atrypanius*, and Chemsak and Linsley (1970) designated a lectotype. Chemsak et al. (1992) reported “SAmer” [South America] and Monné (2021) reported the species as present in Mexico, Nicaragua, Costa Rica, and Panama.

Monné and Giesbert (1994) reported *Atrypanius punctatellus* as a synonym of *A. cretiger*. We were unable to locate any work in which the synonym has been previously established. It is possible to consider the synonymy as by Monné and Giesbert (1994). However, both names appeared as valid in Monné (1995). This could be considered a mistake or even a revalidation. Notwithstanding, the placement of these two species appeared differently from 1995 to the present day, in catalogs and checklists. For example, in Monné and Hovore (2005) and Maes et al. (2010), *A. punctatellus* was listed as a synonym; in Monné (2005, 2021) and Tavakilian and Chevillotte (2020) they were considered two different species. In Maes et al. (1994), Maes (1998), and Noguera and Chemsak (1996) only *A. punctatellus* was mentioned. Tavakilian and Chevillotte (2020) reported that Maes (1998: 927) listed *A. cretiger*, but only *A. punctatellus* was mentioned in this work (page 927).

Examination of the photographs of the holotype of *A. cretiger* (Fig. 2–3; see also photographs on Bezark 2021), and of the lectotype of *A. punctatellus* (Fig. 4; see also photographs on Bezark 2021), as well as the information on the original descriptions, allowed concluding that the two names represent the same species. Accordingly, we are formally synonymizing *A. punctatellus* with *A. cretiger*.

Atrypanius is characterized by the antennae 11-segmented, scape without modifications, prothorax with distinct lateral tubercle, proportionally large, placed closer to posterolateral angles than middle, transverse basal sulcus of the pronotum does not extend laterally behind the lateral tubercles of the prothorax, elytra without erect setae, without carinae or centrobasal crest, prosternal process at least as wide as one-third of the width of the procoxal cavity, mesoventral process wider than one-third of the width of the mesocoxal cavity (often as wide as mesocoxal cavity), and metafemora not remarkably swollen.

Atrypanius cretiger is similar to *A. albocinctus* Melzer, 1930, and *A. implexus* (Erichson, 1847), but differ by the scape, pronotum, and legs with abundant, small, subcircular glabrous areas (absent in these species). It also differs from *A. albocinctus* by the pronotum without transverse, subglabrous transverse band centrally (present in *A. albocinctus*), and X-shaped elytral macula fragmented, with only the posterior sides denser (more distinct, especially posteriorly, forming inverted V-shaped macula in *A. albocinctus*). It also differs from *A. implexus* by the yellowish-brown pronotal maculae not isolated (isolated or forming two transverse bands in *A. implexus*), and X-shaped elytral macula fragmented (not fragmented in *A. implexus*).

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