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This is a postprint of an article that originally appeared in [Zootaxa](#) on April 25, 2015 and the final version can be found here <https://doi.org/10.11646/zootaxa.3949.2.10>.

Ferreira, Vinicius S. (2015). A new species of *Acroleptus* Bourgeois (Coleoptera: Lycidae) from the Brazilian Amazonian rainforest, with a note on its homonymy with *Acroleptus* Cabanis (Aves). *Zootaxa*, 3949(2), 297-300. doi:10.11646/zootaxa.3949.2.10

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A new species of *Acroleptus* Bourgeois (Coleoptera: Lycidae) from the Brazilian Amazonian rainforest, with a note on its homonymy with *Acroleptus* Cabanis (Aves)

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Abstract

Acroleptus costae sp. nov. is described from the Brazilian Amazonian rainforest, raising the diversity of the formerly monotypic genus to two known species. The validity of *Acroleptus* Bourgeois, 1886 (Insecta) is maintained while *Acroleptus* Cabanis, 1861 (Aves) is considered to be an incorrect subsequent spelling.

Key words: taxonomy, Lycinae, Calopterini, Neotropical Region, Amazonian forest

Resumo

Acroleptus costae sp. nov. é descrito para a Floresta Amazônica Brasileira, elevando a diversidade do anteriormente monotípico gênero para duas espécies conhecidas. A validade de *Acroleptus* Bourgeois, 1886 (Insecta) é mantida enquanto que *Acroleptus* Cabanis, 1861 (Aves) é considerado uma grafia subsequente incorreta.

Palavras-chave: Taxonomia, Lycinae, Calopterini, Região Neotropical, Floresta Amazônica

Introduction

The monotypic genus *Acroleptus* Bourgeois, 1886, belongs to the subtribe Acroleptina of the Calopterini. It is closely related to *Lycomorphon* Pic, 1922, *Lycinella* Gorham, 1884 and *Ceratopriomorphus* Pic, 1922 (Bocakova 2005). The genus was redescribed and treated in a phylogenetic analysis of the tribe by Bocakova (2003, 2005). *Acroleptus chevrolati* Bourgeois, 1886 is a rare species and since its description has only been mentioned in two catalogues (Kleine 1933; Blackwelder 1945).

Acroleptus can be easily distinguished from other Calopterini by the flabellate antennae, with branches 2–3 times longer than the stem of antennomere and by the median longitudinal carinae on the pronotum weakened (Bocakova 2003). While examining material from Instituto Nacional de Pesquisas da Amazônia (INPA) a single specimen of a new species of *Acroleptus* Bourgeois, 1886 was found. I take this opportunity to describe this species and thereby widen the concept of the genus.

The genus *Acroleptus* Bourgeois, 1886 (Insecta) is not threatened by the fact that Cabanis (1861: 90) wrote a footnote stating that *Acroleptus* would be the grammatically correct spelling of *Acroleptes* Bonaparte, 1854 (Aves). However, previously on the same page, Cabanis correctly used Bonaparte's spelling with the description of a species that validated *Acroleptes*. Subsequently, no one, not even Cabanis (1861, 1865) ever used the spelling *Acroleptus* as a valid binomen, for a bird or other animal. In spite of the incorrect *Acroleptus* being listed in various catalogs (Gray 1870:78, McGregor 1920:8, Hellmayr 1936: 14), *Acroleptus* Cabanis is invalid and should be treated as a misspelling. Modern electronic searches will return the name *Acroleptus* Cabanis, 1861, but this is a continuation of a misspelling and does not endanger *Acroleptus* Bourgeois, 1886.

Material and methods

The specimen was relaxed in hot water and detergent under a stereomicroscope. Drawings were prepared from photographs taken with a Leica M205C equipped with a Leica DFC 295 camera. Photographs of genitalia were taken using a SEM Zeiss LEO 440 camera and a Zeiss Microscope Axioskop 2. The image layers were aligned using Zerene Stacker version 1.04. The drawings and photographs were edited in Adobe Photoshop CS6 and Adobe Illustrator CS5.

Results

Acroleptus costae sp. nov.

(Figs. 1–4)

Diagnosis. *Acroleptus costae* can be separated from *A. chevrolati* by its small eyes, the slender longitudinal carina on the pronotum which lacks an longitudinal areola, the pronotum widest anteriorly, the absence of spines on the apex of the parameres, and by the rounded apical margin of the phallobase, with lateral margins almost parallel.

Description. General coloration yellow, apical half of elytra black. Antennomeres I–III and XI yellow, as well as flabellum of antennomeres IX and X, IV–X segments black.

Head longer than wide, hypognathous, with interocular distance twice as longer as eye diameter; mouthparts reduced, mandibles arcuate, connate with labrum. Antennae pubescent, inserted in projection of frons (Fig. 1); antennomeres I–II simple, I subconic, II small (1/4 the length of I); antennomeres III–XI flabellate, reaching distal 1/4 of elytra (Fig. 2); III slightly shorter than I, flabellum subequal in length to the stem; stem IV subequal in length to III, with flabellum slightly longer than stem; stem of IV to X gradually increasing in length, with each flabellum longer than respective stem.

Pronotum trapezoidal, transverse, with anterior angles distinct, acute; median longitudinal carina weak (Fig. 1). Scutellum forked behind, short, with both apices acute. Elytra posteriorly dehiscent, slender, 6.5 times longer than pronotum; each with 4 elytral costae, weakly reticulate at apex. Prosternum Y-shaped, reaching hypomeron; thoracic-spiracle tubular, elongate. Mesoventrite trapezoidal, without longitudinal visible suture, fused to mesepisternum without apparent suture; with conspicuous row of setae on mesepimeron; thoracic-spiracle rounded, not produced. Metaventrite convex, anterior angles rounded, divergent posteriad, anteriorly very close to the posterior margin of mesoventrite; posterior angles truncate, divergent, discrimin complete (Fig. 3). Pro- and mesocoxae short; mesocoxae separated by anterior margin of mesoventrite; metacoxae widened; trochanters elongate; profemur and protibiae clavate, the later slender [other femora, tibiae and tarsi missing]. Male genitalia symmetrical; median lobe as long as phallobase, slightly broad in distal half, medially with inner margins folded; parameres less than half length of the median lobe; phallobase with apical margin rounded, lateral margins almost parallel-sided, median suture incomplete, present only in apical third (Fig. 4).

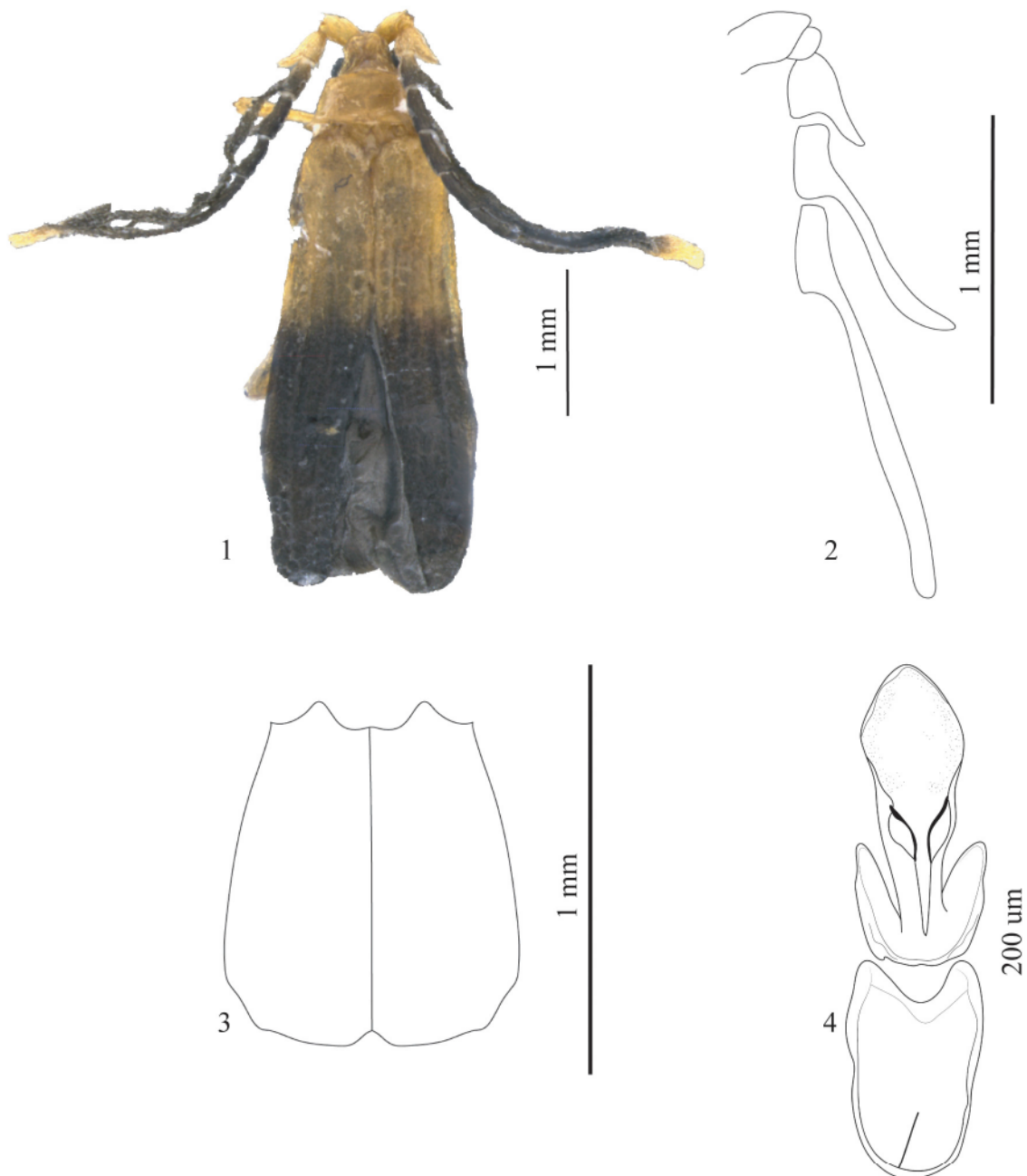
Length: 3.8 mm. Width (across humerus): 1.0 mm

Type material. Holotype, ♂: Brazil: Rondônia State, Porto Velho, BR: 364 – Km 48, 17–IX–1979, Jorge Arias col.; Malaise trap (INPA).

Etymology. Named in honor of Dr. Cleide Costa, the great Brazilian entomologist who dedicated her life to the study of neotropical insect larvae and studies of Elateroidea, and in commemoration of her 50 year career in the Museu de Zoologia da Universidade de São Paulo (MZSP).

Acknowledgments

I am very grateful to Cleide Costa (MZSP) for her support and help in the last years. To Antonio Santos-Silva (MZSP) and to Michael A. Ivie (Montana State University) for the support, help and discussions concerning the nomenclatural questions and general corrections in the manuscript. To Michael Geiser (Natural History Museum, London), Harald Schillhamer (Naturhistorisches Museum Wien, Vienna) and Hingrid Y. Quintino (MZSP) for helping with the German passages and translations of Cabanis's papers. To Livia P. Prado, Felipe F. Barbosa (MZSP) and Simone P. Rosa (Universidade Federal de Itajubá) for the review of the manuscript; to Augusto H. Loureiro (INPA), for the loan of Lycidae to my research; and to Carlos R. F. Brandão (MZSP), for use of his photographic equipment.



FIGURES 1–4. *Acroleptus costae* sp. n., holotype. 1. Dorsal view. 2. Antennomeres I–V. 3. Metaventrite. 4. Ventral view of male genitalia.

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