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A review of the genus *Chalcocopris* Burmeister, 1846 (Coleoptera: Scarabaeidae: Scarabaeinae), with description of a new species

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Abstract

Species included in the genus *Chalcocopris* Burmeister, 1846 are reviewed, including the description of a **new species** (*Chalcocopris inexpectatus* sp. nov.) from Central Brazil, and the designation of a **neotype** for *Copris hesperus* Olivier, 1789. Pictures, diagnostic characters and an identification key are provided.

Key words: Scarabaeinae, Brazil, dung beetles

Introduction

Chalcocopris Burmeister, 1846, was originally introduced as a subgenus of *Copris* Geoffroy, 1762 (as *Copris* Latreille), for two species: *Scarabaeus hesperus* Olivier, 1789, and *Copris smaragdina* Perty, 1830. Harold (1869a), when considering *C. hesperus* (Olivier, 1789) as the only species in that genus, designated this as the type-species of *Chalcocopris* by subsequent monotypy (ICZN, 1999, art. 69.3).

The genus *Chalcocopris* has been so far considered as monospecific and its included species, *C. hespera*, is an endemic of the Atlantic Forest of the South and Eastern States of Brazil and neighboring areas of Argentina and Paraguay. Along with *Isocopris* Pereira & Martínez, 1960, *Chalcocopris* shares an eight-segmented antenna, unique among Western Hemisphere Coprini, being distinguished from *Isocopris* by the costate lateral elytral stria (flat in *Isocopris*) and unbordered pronotal posterior margin (bordered in *Isocopris*). While working on a revision of the genus *Isocopris*, we were surprised by the finding of a tiny, dark brown new species that in fact belongs to *Chalcocopris*. Therefore, the aim of this work is to present a taxonomic synopsis of the genus *Chalcocopris*, describing the second species.

Material and methods

A large sample of individuals of *C. hesperus* and *C. inexpectatus* sp. nov. was studied, with special emphasis on external body characters and male genitalia. Several dry-pinned specimens were dissected for the study of their genital structures and, according to the standard methodologies, individuals were firstly softened in hot water for about 5 minutes and then dissected. Male genitalia were cleaned in a 5% KOH solution for 10 minutes and glued in a card-point for a further detailed morphological study. Specimens and male genitalia were then photographed with a camera attached to a stereomicroscope.

Distribution. Cerrado and Pantanal of Mato Grosso, Mato Grosso do Sul, Goiás and central Minas Gerais in Central Brazil, one record from Southern Paraguay, so probably present in a wider range, maybe including some parts of Chaco (Fig. 9).

Habitat and natural history. The limited number of specimens with data have been collected either at light or with human-dung baited pitfall traps. The habitat appears limited to the cerrado *sensu stricto* vegetation and planted *Eucalyptus* forest. This species appears not to be very abundant or widespread.

The finding of a second species of *Chalcocopris*, in a different Biogeographical province (the Cerrado) is a good example of how understudied are the South American scarabaeine dung beetles.

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