

## New evidence for the validity of *Coprophanaeus (C.) terrali* Arnaud, 2002 (Coleoptera: Scarabaeidae: Scarabaeinae: Phanaeini), a dung beetle from Brazil

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### Abstract

*Coprophanaeus terrali*, a species based on a single male from Sinop, Brazil, had its validity questioned recently when it was suggested that its tetratuberculate cephalic carina could be just an individual variation of *C. dardanus* (MacLeay, 1819). In this work, based on three additional males and two females collected near the type locality, we present new evidence supporting the validity of this species, discuss the variation of the male cephalic carina and describe the female morphology for the first time.

**Key words:** Scarab, Scarabaeoidea, Phanaeina, *Coprophanaeus dardanus*, *Coprophanaeus telamon*

### Resumo

*Coprophanaeus terrali*, espécie baseada em um macho de Sinop, Brasil, teve sua validade posta em dúvida recentemente, quando foi sugerido que a sua carena céfálica tetratuberculada poderia ser apenas uma variação individual de *C. dardanus* (MacLeay, 1819). Neste trabalho, com base em três machos e duas fêmeas adicionais coletados próximos à localidade-tipo, apresentamos novas evidências que suportam a validade desta espécie, discutimos a variação da carena céfálica do macho e descrevemos a morfologia da fêmea pela primeira vez.

**Palavras-chave:** Escaravelho, Scarabaeoidea, Phanaeina, *Coprophanaeus dardanus*, *Coprophanaeus telamon*

### Introduction

The phanaeine genus *Coprophanaeus* d'Olsoufieff, 1924 was recently reviewed by Edmonds & Zidek (2010), who recognized the validity of 38 species distributed among three subgenera (*Metallophanaeus* d'Olsoufieff, 1924, *Megaphanaeus* d'Olsoufieff, 1924 and *Coprophanaeus s. str.*) and eight species groups. However, as they were unable to examine some type specimens, they could not assess the validity of six species names assigned to *Coprophanaeus*, “most of which refer to ill-defined species often based on only one or two specimens”, leading to the following names having uncertain status: *Coprophanaeus rigotorum* Arnaud, 2002; *C. lichyi* Arnaud, 2002; *C. lecromi* Arnaud, 2002; *C. larseni* Arnaud, 2002; *C. terrali* Arnaud, 2002 and *C. vazdemeloi* Arnaud, 2002. We consider here new morphological and biogeographical evidence supporting the validity of one of these species, *C. terrali* Arnaud.

Arnaud (2002a) described *C. terrali* based on a single male collected at Sinop, Mato Grosso, Brazil. He compared this new species only with *C. (C.) dardanus* (MacLeay, 1819) and said that they differed by the shape of