



Contributions to the knowledge of *Dichelops* (*Dichelops*) with the description of a new species (Hemiptera: Heteroptera: Pentatomidae: Pentatominae: Carpocorini)

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Abstract

A new species of *Dichelops* (*Dichelops*) Spinola is described, based upon morphological characters. *D. (D.) australis* **sp. nov.** is compared with *D. (D.) bicolor* Distant, *D. (D.) avilapiresei* Grazia, and *D. (D.) pradoi* Grazia. Comparative illustrations of external genitalia are provided. A revised key to separate the species of the subgenus *Dichelops* is also presented.

Key words: Carpocorini, genitalia, Neotropics, new species, taxonomy

Introduction

The neotropical genus *Dichelops* Spinola, 1837 was revised by Grazia (1978); it comprises three subgenera, *Dichelops* Spinola, 1837, *Diceraeus* Dallas, 1851, and *Prodichelops* Grazia, 1978 (Rider, 2011). The type subgenus is represented, so far, by nine species: *D. (D.) avilapiresei* Grazia, 1978, *D. (D.) bicolor* Distant, 1890, *D. (D.) leucostigmus* (Dallas, 1851), *D. (D.) miriamae* Grazia, 1978, *D. (D.) nigrum* Bergroth, 1914, *D. (D.) peruanus* Grazia, 1978, *D. (D.) pradoi* Grazia, 1978, *D. (D.) punctatus* Spinola, 1837, and *D. (D.) saltensis* Grazia, 1978. The study of material collected in southern Brazil and Argentina revealed a new species, herein described. *Dichelops australis* **sp. nov.** is grouped to *D. bicolor*, *D. avilapiresei* and *D. pradoi* by humeri not projected, obtuse, or bearing a small spine, at most barely surpassing rhomboid projections of the posterolateral margins of the pronotum. A morphological comparison of male and female genitalia among these species is presented. Additionally, a new key to the species of the subgenus *Dichelops*, adapted from Grazia (1978), is provided.

Material and methods

The study was based on specimens from the following collections: Departamento de Zoologia da Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil (UFRG); Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”, Buenos Aires, Argentina (MACN); Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre, Brazil (MCNZ); Museu de Zoologia, Universidade de São Paulo (MZSP); Museu de Zoologia, Universidade de Campinas (ZUEC). The genital terminology follows Dupuis (1970), Schaefer (1977), and Grazia (1978). The structures in the pygophore named “processos do diafragma” by Grazia (1978) are here treated as “superior processes of dorsal rim” (Grazia & Schwertner, 2008). For the study of internal genitalia, specimens were boiled in hot water before dissection and then prepared with a hot solution of 10% KOH. Measurements (average, minimum and maximum values, standard deviation) are given in millimeters.