



Contributions to the knowledge of *Dichelops* Spinola: description of a new species of *Dichelops* (*Diceraeus*) and of the male of *Dichelops* (*Prodichelops*) *divisus* (Hemiptera: Heteroptera: Pentatomidae: Pentatominae: Carpocorini)

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Abstract

A new species of *Dichelops* (*Diceraeus*) Dallas and the so-far unknown male of *Dichelops* (*Prodichelops*) *divisus* (Walker, 1867) are described, based upon morphological characters. *D. (Dice.) caatinguensis* **sp. nov.** is compared to the other four species of *Diceraeus*. Revised keys to separate the subgenera of *Dichelops* and the species of *Diceraeus* are also presented. *D. (P.) divisus* male is described and compared to the type species. Comparative illustrations of external and internal genitalia of the species are provided.

Key words: genitalia, Hemiptera, Heteroptera, Neotropical, 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. The subgenus *Dichelops* is the most diverse, bearing ten species (Grazia, 1978; Klein *et al.*, 2012). The genus was recently revised by Klein *et al.* (2012): a new species was described, the genitalia terminology was updated, and an adapted key to the subgenus was provided.

The subgenera *Diceraeus* is, so far, represented by four species: *D. (Dice.) furcatus* (Fabricius, 1775), *D. (Dice.) lobatus* Grazia, 1978, *D. (Dice.) melacanthus* (Dallas, 1851), and *D. (Dice.) phoenix* Grazia, 1978. The study of material collected in northeast Brazil revealed a species, whose morphological characteristics resemble *Diceraeus*, but do not match with any of the species already described. Herein we describe *Dichelops caatinguensis* **sp. nov.** which is included in *Diceraeus* by serrated anterolateral and sinuated posterolateral margins of pronotum, presence of ventral process of conjunctiva, *pars intermedialis* twisted, and *capsula seminalis* lacking processes. Morphological comparisons of male and female genitalia among these species are presented. Additionally, a new key to the species of *Diceraeus*, adapted from Grazia (1978), is provided.

The subgenus *Prodichelops* is monotypic and was described from one female specimen, the holotype of *D. (P.) divisus* (Walker, 1867). It is characterized by humeral angles developed; anterolateral margins of pronotum crenulated, posterolateral margins sinuated, lacking projections, and *capsula seminalis* lacking processes. Recently, three specimens (one male and two females) were collected in the Brazilian and Colombian Amazonia. Here we describe the male of *D. (P.) divisus*, aiming to recognize the subgenus characteristics and to make comparisons with other subgenera. A revised key to separate the subgenera of *Dichelops* is also provided.