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## The genus *Buenoa* Kirkaldy, 1904 (Hemiptera: Heteroptera: Nepomorpha: Notonectidae) in northern Brazil: inventory, new records, and new species

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### Abstract

The genus *Buenoa* contains 69 described species, 15 occurring in the North Region of Brazil. Here we present new records for the States of Pará, Amazonas, Roraima, and Rondônia. We examined 16 species: *B. amnigenoidea* Nieser, 1970, *B. amnigenopsis* Nieser, 1975, *B. amnigenus* White, 1879, *B. exilidens* Barbosa, Nessimian & Ferreira-Keppler, 2010, *B. dilatitrus* Barbosa, Nessimian & Ferreira-Keppler, 2010, *B. femoralis* (Fieber, 1851), *B. fuscipennis* (Berg, 1879), *B. incompta* Truxal, 1953, *B. kosta* Nieser & Pelli, 1994, *B. macrotrichia* Truxal, 1953, *B. platycnemis* (Fieber, 1851), *B. salutis* Kirkaldy, 1904, *B. tarsalis*, Truxal, 1953, *B. tibialis* Truxal, 1957, *B. truxali* Nieser, 1968, and *B. unguis* Truxal, 1953; and a new species, *B. deplanatylus* Barbosa & Nessimian **sp. nov.** We found no material of four species with bibliographic records for the region: *B. communis* Truxal, 1953, *B. pallens* (Champion, 1901), *B. pallipes* (Fabricius, 1803), and *B. paranensis* Jaczewski, 1928.

**Key words:** Distribution, Heteroptera, Neotropical Region, northern region of Brazil, Brazilian Amazon region, taxonomy

### Introduction

The genus *Buenoa* Kirkaldy, 1904 is the unique representative of Anisopinae in Brazil. This subfamily is characterized by a hair-lined pit on the anterior region of hemelytral commissure; abdominal segments 3–7 with clusters containing hemoglobin cells that occupy almost a third of the abdomen; pelagic mode of life; and antennae 3-segmented (Mahner 1993).

Courtship behavior and patterns of stridulation by specific structures in males are singular features (Wilcox 1975; Bare 1928), which are observed in *Buenoa* and *Anisops*. Individuals of *Buenoa* are distinguished from others Anisopinae by stridulatory ridges on the fore femora (Mahner 1993), with a secondary loss in some species.

The identification of *Buenoa* species is based mainly on characteristics found only in males: the shape and origin of the lateral expansion of the third rostral segment (rostral prong), and the length with respect to this segment; the absence or presence of the stridulatory area of the fore femur, and the quantity of ridges observed; and the number of teeth in the stridulatory comb of the fore tibia (Truxal 1953). Moreover, the measures of the relations of the head and pronotum are equally useful. Usually, the shapes of caudo-sinistral spine on the seventh abdominal tergite and of the genital capsule are not used for identification. The shape of eyes in the region of synthlipsis is a characteristic potential for females' identification, because sometimes other distinct structural features cannot be observed.

The genus *Buenoa* currently has 69 species; 54 occurring in the Neotropical Region, and 29 in Brazil (Truxal 1953, 1957; Nieser 1968, 1970, 1975; Reichart 1971; Roback, Nieser 1974; Angrisano 1982; Andrade 1992; Padilla-Gil, Nieser 1992; Nieser, Pelli 1994; Nieser *et al.* 1997; Padilla-Gil 2003, 2010a, b, c; Pereira, Melo 2007; Barbosa *et al.* 2010a, b; Rico *et al.* 2010; Padilla-Gil 2012). Fifteen of these species are found in the North Region<sup>1</sup>

1. The North Region is one of the five political regions of Brazil and comprises seven States: Acre, Amapá, Amazonas, Pará, Rondônia, Roraima, and Tocantins. This region does not include the total area of Amazon Forest in Brazilian territory.