



Description of the nymphs of *Triatoma pintodiasi* Jurberg, Cunha & Rocha, 2013 (Hemiptera: Reduviidae: Triatominae)

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Abstract

Triatoma pintodiasi Jurberg, Cunha & Rocha, 2013 has been recently described based on material collected on Rio Grande do Sul State, Brazil. Nymphs of this species were unknown and their description might contribute for studies concerning the taxonomy, phylogeny, and evolution of the genus *Triatoma*. Such description is herein presented, along with comparison with other species of the *rubrovaria* subcomplex of species.

Key words: Chagas disease, immatures, kissing bugs, taxonomy

Introduction

The triatomines, or kissing bugs (Hemiptera: Reduviidae: Triatominae), are characterized by the obligatory haematophagy and have great medical importance, being vectors of *Trypanosoma cruzi* Chagas, 1909, pathogen that produces the Chagas disease (Gonçalves *et al.* 2012). *Triatoma pintodiasi* Jurberg, Cunha & Rocha, 2013, of the *rubrovaria* subcomplex of species, has been recently described in Jurberg *et al.* (2013) based on specimens collected on Caçapava do Sul Municipality, Rio Grande do Sul, Brazil. The specimens were initially confused with *Triatoma circummaculata* (Stål, 1859) because of their color pattern, but detailed morphological, biochemical, and morphometrical studies revealed that they belonged to a different undescribed species.

Morphological studies of eggs and nymphs of triatomines are extremely important for a better understanding of the taxonomy of the group, because they allow the recognition of additional diagnostic characteristics not found in the adults (Gonçalves *et al.*, 1985; Jurberg *et al.*, 1986; Silva *et al.*, 2005). The nymphs of *T. pintodiasi* were unknown, being herein described and compared with information concerning the immatures of other species of the *rubrovaria* subcomplex available in the literature.

Material and methods

Material examined was provided by the three colonies of *Triatoma pintodiasi* kept in the Laboratório Nacional e Internacional de Referência em Taxonomia de Triatomíneos (LNIRTT), of which founders were collected at the same locality as the type-specimens (BRAZIL: Rio Grande do Sul – Caçapava do Sul, Nossa Senhora das Graças, rincão). Five nymphs of each instar have been examined and measured. All measurements were taken from specimens in dorsal view under a Leica MS5 stereomicroscope. Means and standard deviations are presented in millimeters in Table 1. Images were obtained with a digital camera attached to a Leica S8 APO stereomicroscope.

Results and discussion

First instar (Fig. 1). General color brown, except for median ring on antennomere IV, intersegmental portions of

other hand, the ecdysial suture extends to abdominal segment II on first and second instars, to segment IV on third and fifth instars, and to segment III on fourth instar.

Discal tubercles are visible on second to fifth instar nymphs of *T. carcavalloei*, but are absent from all instars in *T. pintodiasi*. Still according to Jurberg *et al.* (2008), body lengths of first to fifth instar nymphs of *T. carcavalloei* are respectively 2.85 mm, 5.13 mm, 5.47 mm, 7.67 mm, and 10.69 mm. Being so, nymphs of *T. pintodiasi* (Table I) are shorter than those of *T. carcavalloei*, like the adults of these species.

Finally, according to Rosa *et al.* (2000), first and second instar nymphs of *T. rubrovaria* have antennomere IV > III > II > I, at the third instar the proportions are III > IV > II > I, and II > III > IV > I on fourth and fifth instars. In *T. pintodiasi* the proportions for first, second, and third instars are IV > III > II > I, IV > II > III > I on fourth instar, and II = III > IV > I on fifth instar.

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