



Communication/Comunicação

First report of *Eratyrus mucronatus*, Stal, 1859, (Hemiptera, Reduviidae, Triatominae), in the State of Rondônia, Brazil

Primeiro relato de ocorrência da espécie *Eratyrus mucronatus*, Stal, 1859, (Hemiptera, Reduviidae, Triatominae), no Estado de Rondônia

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ABSTRACT

Introduction: This paper reports, for the first time, the presence of the *Eratyrus mucronatus* species in the State of Rondonia, Brazil. **Methods:** These specimens were caught by chance in the forest and later they were collected using luminous traps. **Results:** After finding these specimens, the number of the Triatominae genera in Rondonia rose to four, while its species rose to seven. **Conclusions:** Complimentary studies will be conducted in order to allow for clearer understanding the ecology of this arthropod, its possible role in transmitting Chagas' disease and its current geographical distribution.

Keywords: Triatominae. *Eratyrus mucronatus*. Rondonia.

RESUMO

Introdução: O presente comunicado relata pela primeira vez a ocorrência da espécie *Eratyrus mucronatus*, no Estado de Rondônia. **Métodos:** Os espécimes foram coletados ao acaso na mata e depois com a ajuda de armadilhas luminosas. **Resultados:** Com o encontro dos espécimes, o registro de gêneros de triatomíneos em Rondônia passa para quatro e o de espécies para sete. **Conclusões:** Estudos complementares serão realizados para compreender melhor a ecologia do artrópodo, seu eventual papel da transmissão da doença de Chagas e sua real distribuição geográfica.

Palavras-chaves: Triatomíneos. *Eratyrus mucronatus*. Rondônia.

The triatominae, commonly known as kissing bugs, are insects widely known by the rural populations of many regions of Brazil. Featuring variable sizes and colors, they are often mistaken for Reduviidae (Assassin bugs). These insects are widely spread throughout the Americas and are found from the South of the United States through the South of Argentina. They are important, as they may transmit Southern American trypanosomiasis, which is also called Chagas' disease¹.

Although the first specie (*Cimex rubrofasciatus*, and ultimately *Triatoma rubrofasciata* De Geer, 1773) was described at the end of the 18th Century, human contact of this insect occurred a lot earlier^{2,3}.

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The first acknowledged report on the conformation and behavior of the genus *Triatoma* dates from 1590 and was written by the priest Reginaldo de Lizaárraga when he was making a trip to inspect the convents of Peru and Chile⁴. Darwin also found these insects on a trip to South America on board of the H.M.S. Beagle in 1835^{4,5}.

Worldwide, 141 species belonging to 18 genera are known. In Brazil, 60 species belonging to 8 genera are acknowledged (Table 1)⁵. In the Amazonian countries, 24 species belonging to 8 genera are acknowledged⁶. Moreover, in the Brazilian Amazon, at least 18 species of sylvan triatominae belonging to 8 genera have been identified, of which 10 are related to infection by the flagellate *Trypanosoma cruzi*⁷.

TABLE 1 - Current systematic classification of the subfamily Triatominae identified in Brazil.

Subfamily	Genus	Species (n)
Triatominae	<i>Alberprosenia</i>	1
	<i>Belminus</i>	1
	<i>Microtriatoma</i>	2
	<i>Cavernicola</i>	2
	<i>Rhodnius</i>	11
	<i>Eratyrus</i>	2
	<i>Panstrongylus</i>	12
	<i>Triatoma</i>	29
Total		60

In Rondonia, the presence of six species belonging to three genera has been reported. *Rhodnius robustus*, *Rhodnius prolixus*, *Rhodnius pictipes*, *Rhodnius milesi*, *Panstrongylus geniculatus* and only one report on *Triatoma rubrovaria*⁶. However, this report of *T. rubrovaria* was possibly due to taxonomic misclassification, or resulted from an imported specimen, since it is native to Uruguay³ and the State of Rio Grande do Sul, Brazil⁵.

The genus *Eratyrus* has morphological characteristics that resemble the genus *Triatoma* with antennal tubercles located at the middle third of the antecular segment; however, it presents spines and acute pronotum posterior lobe angles. This genus comprises only two species in the world, *Eratyrus mucronatus* and *Eratyrus cuspidatus*, and only the species *Eratyrus mucronatus*^{3,5} has been found in Brazil.

The *Eratyrus mucronatus* species has been reported in the Brazilian States of Amazonas, Para, Maranhão, Goiás, and Mato Grosso, and in neighboring countries, including Colombia, Bolivia,

Ecuador, Guiana, French Guiana, Suriname, and Venezuela. In the State of Rondonia, it had not been identified before^{5,6}.

This species has been found naturally infected by *Trypanosoma cruzi*, usually in sylvatic mammal nests in palm trees⁸, and has also been associated with *Carvenicola pilosa*⁹.

It is a species that adapts easily to stable artificial ecotones⁹ and the intradomiciliary presence of *E. mucronatus* infected by *T. cruzi* has been occasionally found in Bolivia^{10,11}.

This species was first reported in the municipality of Ouro Preto do Oeste, State of Rondonia, Brazil, and was found by chance along a nature trail in a reserve of the CEPLAC - Comissão Executiva do Plano da Lavoura Cacaueira (Executive Planning Commission of Cocoa Farming) (S 10° 42'49", W 62° 13'31") on November 14th, 2009.

Later, four luminous traps, two Shannon and two CDC types, were set up on December 11th, 12th, and 13th of 2009, and two more *E. mucronatus* species samples were caught, possibly attracted by the light of a CDC-type trap, thus proving that the sylvatic triatomine species is also present in the State of Rondonia. This increases the number of species to seven, while the number of triatomine genera that have been reported in the state increased to four.

The captured triatominae were forwarded to the Laboratory of Entomology of CEPLAC, where they were identified by their external morphological conformations using a dichotomic key developed by Lent & Wygodzinsky, 1979³.

The *Eratyrus mucronatus* species (**Figure 1**) features the following characteristics: anterior lobe of the point 1 + 1, strong disc-shaped spines, humeral angle at the point are clearly spiny, corium with a relatively small subapical redish spot, which does not anteriorly reach the transversal nervure level, free portion of the convex vesica on the apex when viewed laterally^{2,5}.

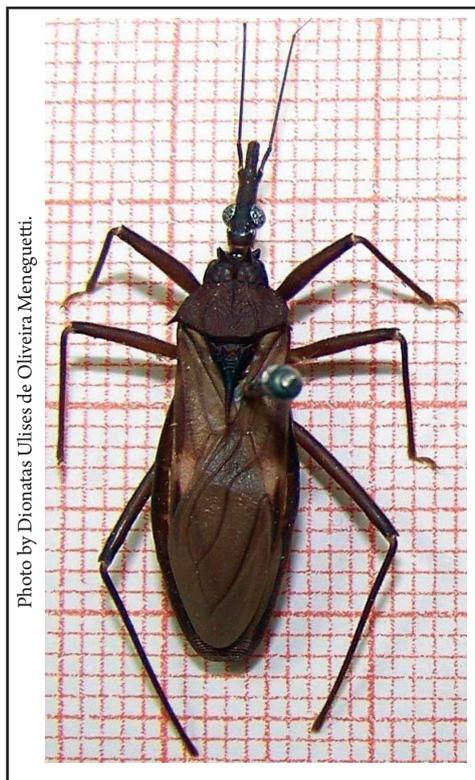


FIGURE 1 - *Eratyrus mucronatus* species found in the municipality of Ouro Preto do Oeste, State of Rondonia, Brazil.

The presence of more than one triatominae species in the State of Rondonia demonstrates that the biodiversity of these insects may have been underestimated and that it is important to conduct further studies regarding triatominae fauna and their distribution throughout the state, since they are vectors of Chagas' disease and could eventually jeopardize the health of the local population.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest.

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