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A new species of *Tribonium* Saussure, 1862 from the Province of Misiones, Argentina (Blattaria, Blaberidae, Zetoborinae)

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Abstract

Tribonium rothi **sp. n.** is described from Argentina, whereas *T. neospectrum* and *T. conspersum* are recorded for the first time for that country, and their genitalia is redescribed. Femur and tibial spine armature are given and *Tribonium* is compared with *Schistopeltis*. A key to identify species of the genus *Tribonium* recorded in Argentina is provided.

Key words: *Tribonium rothi*, male genitalia, geographical distribution, leg armature, *Schistopeltis*

Introduction

The South American cockroach genus *Tribonium* Saussure, 1862 includes eleven species (Lopes & De Oliveira Cardoso Da Silva 2010). Species of *Tribonium* are difficult to tell apart because of their strong external similarities; however, comparative analyses of male genital features allow species distinction, thus these structures are essential in taxonomic descriptions. The most relevant contributions to study the genus are Roth (1970, with corrections in foot note 1974), Lopes (1978) and Grandcolas (1993).

Only two species of *Tribonium* are known from Argentina (Crespo *et al*. 2010): *T. guttulosum* (Walker 1868) and *T. spectrum* (Eschscholtz 1822). The goal of the present paper is to describe a new species of *Tribonium*, compare its genitalia and arrangement of leg spines to those of *T. conspersum* (Guérin-Méneville & Percheron 1835) and *T. neospectrum* Lopes, 1978, as well as to georeference the species distribution.

Material and methods

The studied material is deposited in the following institutions: Administración Nacional de Laboratorios e Institutos de Salud (ANLIS), Instituto Fundación Miguel Lillo Argentina (IMLA), Museo Argentino de Ciencias Naturales (MACN), Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ), Fundación Félix de Azara, Naturhistorisches Museum Wien (NMW), and Zoological Museum University of Copenhagen (ZMUC).

We measured and photographed specimens using a stereoscopic microscope Leica MZ8 (magnifications 6.3–50x) equipped with an eyepiece micrometer scale for measurements of length, and a digital camera Nikon Coolpix S630 12MP mounted on the microscope. To study and photograph genital cuticular structures, sclerites were treated in a 10% KOH solution to remove remains of soft tissue, rinsed with water and finally placed on a microscopic ring slide with glycerin to avoid structural deformation and proper description.

The distal end of the femora in the Blaberidae has been recognized as an important character (Bohn *et al*. 2010). Accordingly, the prothoracic femora are classified in four different types (A-D) on the basis of spines and spinules arrangement along their anteroventral edge (Roth 2003). Type D has been defined by the presence of only

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Conclusions

After the description of *T. rothi* **sp. n.**, and the new records of *T. neospectrum* and *T. conspersum*, the number of species of *Tribonium* known from Argentina increased from two to five. Members of *Tribonium* and *Schistopeltis* exhibit femur type D_0, and a similar number and distribution of spines on femora and tibiae. These similarities support the hypothesis of Rehn (1916), who suggested a close relationship between *Tribonium* and *Schistopeltis*. On the other hand, Hebard (1929), Roth (2003) and Bohn *et al*. (2010), suggested that leg armature might prove to be useful to distinguish *Tribonium* species. Our analyses of these structures indicate that this is not the case, at least in those species herein studied.

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