



On the *Tityus stigmurus* complex (Scorpiones, Buthidae)

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Abstract

The species included in the *Tityus stigmurus* complex as established by Lourenço are revised. The male of *Tityus serrulatus* Lutz & Mello, 1922 is redescribed. New diagnostic characters are given for *T. kuryi* Lourenço 1997, *T. melici* Lourenço 2003, *T. serrulatus* and *T. stigmurus* Thorell, 1876. *Tityus lamottei* Lourenço 1981 and *T. acutidens* Mello-Leitão, 1933 are considered a junior synonyms of *T. serrulatus* (**syn. nov.**). The female of *Tityus kuryi* and the male of *Tityus stigmurus* are also redescribed. New distribution records are presented for species included in the complex.

Key words: Systematics, *Tityus stigmurus* complex, redescription, revalidation, distribution, State of Minas Gerais, State of Bahia, Brazil

Resumo

As espécies do complexo *Tityus stigmurus* Thorell, 1876, estabelecido por Lourenço, são revisadas. O macho de *Tityus serrulatus* Lutz & Mello, 1922 é redescrito. Novos caracteres diagnósticos são dados para *T. kuryi* Lourenço, 1997, *T. melici* Lourenço, 2003, *T. serrulatus* e *T. stigmurus*. *Tityus lamottei* Lourenço, 1981 e *T. acutidens* Mello-Leitão, 1933 são considerados sinônimo de *T. serrulatus* (**syn. nov.**). A fêmea de *T. kuryi* e o macho de *T. stigmurus* também são redescritos. Novos pontos de distribuição são apresentados para todas as espécies do complexo.

Palavras-chave: Sistemática, redescrição, revalidação, *Tityus serrulatus*, Minas Gerais, Bahia, Brasil

Introduction

The genus *Tityus* C.L. Koch, 1836 has a wide geographical distribution in the Neotropical region, being found from the Dominican Republic (Armas & Abud Antun, 2004) to central Argentina (Ojanguren-Affilastro, 2005). With over 175 species and 6 subspecies, it is, at the present, the scorpion genus with the greatest number of described species.

With such a diversity of closely related forms, the classification within the genus is still considered chaotic. Since the very first attempt of subdivision of this genus (Krapelin, 1911), several authors have tried to propose better classifications (Mello-Leitão, 1931, 1939, 1945; Lourenço, 1979, 1980, 1981, 1984, 1992; Lourenço & Maury, 1985; Lourenço & Eickstedt, 1987, 1988; González-Sponga, 1984, 1996; Armas, 1988).

Mello-Leitão (1931) divided all the species into four groups based on color pattern and morphometrics. In 1939, Mello-Leitão raised this number up to eleven using morphological characters as diagnosis, such as the ventral carinae on the metasomal segments, number of pectinal teeth, number of oblique rows of granules on the pedipalp fingers and the presence of secondary sexual characters. The number of groups within *Tityus* was then raised to 15 (Mello-Leitão, 1945) also based on morphological characters and color pattern. Lourenço (1998) in an attempt to simplify this classification, established only three groups for all the *Tityus* species, based on color pattern and morphological characters namely the *T. asthenes* group, the *T. bahiensis* group and the *T. clathratus* group. Subsequently, a fourth group was proposed by Lourenço & Pézier (2002) to include *Tityus adisi* Lourenço & Pézier, 2002. Finally, Lourenço (2006) established a new division of the genus into five subgenera: *Archaeotityus* Lourenço, 2006, *Atreus* Gervais, 1843, *Brazilotityus* Lourenço, 2006, *Caribetityus* Lourenço, 1999 and *Tityus* C. L. Koch, 1836. Informal groups of species inside the subgenus *Tityus* have been referred as complexes (Lourenço, 1981; Lourenço & Silva, 2006). Presently there are two complexes: the *T. stigmurus* complex (*sensu* Lourenço, 1981, 2001) which includes the following nominal species: *Tityus aba* Candido Lucas, Souza, Dias & Lira-da-Silva, 2005, *T. acutidens* Mello-Leitão, 1933, *T. kuryi* Lourenço, 1997, *T. martinpaechi* Lourenço, 2001, *T. melici* Lourenço, 2003, *T. serrulatus* Lutz & Mello, 1922, and *T. stigmurus* Thorell, 1876; and the *T. confluens* complex (*sensu* Lourenço & Silva, 2006) which includes *T. adrianoi* Lourenço, 2003, *T. blaseri* Mello-Leitão, 1931, *T. confluens* Borelli, 1899, *T. marajoensis* Lourenço