



The centipede genus *Otostigmus* Porat in Brazil: Description of three new species from the Atlantic Forest; a summary and an identification key to the Brazilian species of this genus (Chilopoda, Scolopendromorpha, Scolopendridae, Otostigminae)

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Abstract

Three new species of *Otostigmus* Porat, 1876 from Brazilian Atlantic Forest are described. *Otostigmus beckeri* sp. n. and *O. lanceolatus* sp. n. are described from the state of Bahia and *O. giupponii* sp. n. from the state of Espírito Santo. In Brazil, the otostigmine scolopendrid genus *Otostigmus* comprises 22 species. A summary of Brazilian *Otostigmus* species is presented with new distribution records, taxonomic remarks when appropriate and an identification key. *Otostigmus sulcatus* Meinert, 1886 is recorded for the first time from Brazil; the Andean *Otostigmus silvestrii* Kraepelin 1903, previously recorded from Brazil, is here considered not to be present in this country. Eight nominal species are regarded here as new synonyms. Five of them—*Otostigmus pradoi* Bücherl, 1939, *O. longistigma* Bücherl, 1939, *O. longipes* Bücherl, 1939, *O. langei* Bücherl, 1946 and *O. dentifusus* Bücherl, 1946—are based on females of *O. tibialis* Brölemann, 1902. *O. latipes* Bücherl, 1954 is conspecific with and is considered a junior synonym of *O. sulcatus* Meinert, 1886; *O. limbatus diminutus* Bücherl, 1946 is a junior synonym of *O. limbatus* Meinert, 1886 and *O. fossulatus* Attems, 1928 is a junior synonym of *O. goeldii* Brölemann, 1898. A lectotype is designated for *O. goeldii*.

Key words: Chilopoda, *Parotostigmus*, *Dactylotergitius*, taxonomy, Neotropical Region

Introduction

Amongst the genera of Otostigminae, *Otostigmus* is by far the most diverse (~121 species). The genus is subdivided into three subgenera: *Otostigmus*, *Parotostigmus* Pocock, 1896 and *Dactylotergitius* Verhoeff, 1937. *Parotostigmus* is almost exclusively Neotropical and *Dactylotergitius* mostly Brazilian with few records from Argentina (Chagas-Jr *et al.*, 2007). From Brazil 27 species of *Otostigmus* have been recorded thus far, 25 belonging to *Parotostigmus* and two to *Dactylotergitius*. Of these, 16 are endemic. In taxonomic studies of Scolopendridae, *Otostigmus* has been recognized for more than a century as the most difficult genus (Pocock 1892; Attems 1934; Lewis 2002). The traditional concept of the genus, based on a single plesiomorphic character (the lack of spiracle on the seventh pedal segment) suggests that the genus is likely paraphyletic (Vahtera *et al.*, 2011). Several species of the subgenus *Otostigmus* have been recently revised by Lewis (1996; 2000; 2002; 2003; 2004; 2010) and those of *Dactylotergitius* have been revalidated by Chagas-Jr *et al.* (2007), but the Neotropical species of *Parotostigmus* still need investigation. In this study all the species of *Otostigmus* occurring in Brazil are reviewed. Eight are regarded as new synonyms and three new species are described.

Repository acronyms are as follows: AMNH—American Museum of Natural History, New York, New York, USA; IBSP—Instituto Butantan, São Paulo, São Paulo, Brazil, MCZ—Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA; MHNCI—Museu de História Natural do Capão da Imbuia, Curitiba, Brazil; MNHN—Muséum National d’Histoire Naturelle, Paris, France; MNRJ—Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil; MZSP—Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil; NMNH—National Museum of Natural History, Smithsonian Institution, Washington, D. C., USA;