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A new species of *Charinus* Simon, 1892 from northeastern Brazil with comments on the potential distribution of the genus in Central and South Americas (Arachnida: Amblypygi: Charinidae)

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Abstract

A new species of the genus *Charinus* Simon, 1892 is described from caves in the Rio Grande do Norte, Brazil. This is the first record of the genus for the state. This paper presents a map of the *Charinus* species distribution in Brazil with new records and a map of potential distribution of the genus in South and Central Americas. An updated key for *Charinus* species from Brazil is also presented.

Key words: whip spider, taxonomy, *Charinus potiguar*, Neotropics

Introduction

Amblypygi comprises one of the less diverse groups among the Arachnida. This order includes five families, 17 genera and approximately 160 species (Harvey, 2003; Rahmadi *et al*., 2011). The genus *Charinus* is the most specious, presenting 48 described species (Jocque & Giupponi, 2012).

The Amblypygi are distributed mainly in tropical and subtropical regions of the Old and New World, *Charinus* being the only genus with an almost worldwide distribution (Weygoldt, 2000). This genus has representatives in Europe (*C. ioanniticus* (Kritscher, 1959)), Africa (*C. africanus* Hansen, 1921), Asia (*C. bengalensis* (Gravely, 1911)) and Oceania (*C. australianus* (L. Koch, 1867)), but the most of the known species are concentrated in the Neotropical region (Harvey, 2003).

The present work aims to describe a new species of *Charinus* found in caves in the state of Rio Grande do Norte, Brazil. A distribution map of the Brazilian species of *Charinus* with new records and a map of potential distribution of the genus for South and Central America are presented, as a key for the species of *Charinus* in Brazil.

Material and methods

The specimens were collected during 2007 and 2010 through visual searches throughout the floors and walls of the caves. All specimens were captured with a fine brush and placed in vials containing 70% ethanol.

The terminology of the pedipalp and legs followed Harvey and West (1998) and of the structures of male gonopods followed Giupponi and Kury (2013). For measurements and some nomenclature we followed the proposals of Quintero (1981). Measurements of the articles of the pedipalp were taken between the condyles of

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The Brazilian legislation that currently protects the cave environments (decree-law no. 6640) categorizes the caves according to their geological and biological importance. Subterranean environments that are type locality of a species are considered most relevant. Thus, the description of new species for caves can help increase the biological importance of these environments, increasing the chances that they are preserved, as well as their adjacent external environments.

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