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A new species of *Pseudopaludicola* Miranda-Ribeiro (Leiuperinae: Leptodactylidae: Anura) from the Cerrado of southeastern Brazil with a distinctive advertisement call pattern

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Abstract

A new species of *Pseudopaludicola* is described from the Cerrado of southeastern Brazil. The new taxon is diagnosed from the *P. pusilla* species group by the absence of either T-shaped terminal phalanges or toe tips expanded, and promptly distinguished from all (13) recognized taxa currently assigned to *Pseudopaludicola* by possessing isolated (instead of regular call series), long (117–187 ms) and non-pulsed advertisement calls.

Key words: Advertisement call, Cerrado, *Pseudopaludicola giarettai* new species, State of Minas Gerais

Introduction

The genus *Pseudopaludicola* Miranda-Ribeiro currently comprises 13 recognized species distributed throughout South America (Frost 2011). The monophyly of the genus is supported by external morphology (hypertrophied antebrachial tubercle) (Lynch 1989) and osteology (Lobo 1995). This genus encompasses two phenetic species groups (*sensu* Lynch 1989): (i) *P. pusilla* (Ruthven 1916) species group, defined by the presence of T-shaped terminal phalanges, includes five species: *P. boliviana* Parker, *P. canga* Giaretta and Kokubum (2003), *P. ceratophyes* Rivero and Serna (1984), *P. llanera* Lynch (1989), and *P. pusilla*; and (ii) *P. falcipes* (Hensel 1867) species group, with no distinctive set of morphological characters supporting its monophyly, includes eight species: *P. falcipes*, *P. mineira* Lobo (1994), *P. murundu* Toledo *et al.* (2010), *P. mystacalis* (Cope 1887), *P. riopiedadensis* Mercadal de Barrio and Barrio (1994), *P. saltica* (Cope 1887), *P. serrana* Toledo (2010), and *P. ternetzi* Miranda-Ribeiro. Cytogenetic data corroborated the monophyly of the *P. pusilla* species group with chromosome number 2n=18 (Duarte *et al.* 2010), previously supported only by a morphological approach (Lynch 1989). In constrast, cytogenetic data of some taxa currently assigned to the *P. falcipes* species group presented chromosome number varying from 2n=16 to 2n=22 (Fávero *et al.* 2011), providing no conclusive results to support its monophyly, previously regarded as a paraphyletic group (see Lynch 1989; Lobo 1995).

During a survey of anurans in human-altered areas (smallholding) of Cerrado remnants in the State of Minas Gerais, southeastern Brazil, I found a new species that I describe herein on the basis of bioacoustic and morphological/morphometric data. The new taxon is not assigned to the *P. falcipes* species group as it should probably not represent a monophyletic grouping. Future studies based on a phylogenetic approach will assess its phylogenetic position and interrelationships in the genus *Pseudopaludicola*.

Material and methods

Specimens, advertisement call, and data on habitat of the new species were obtained on the Mato do Engenho

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