



## Description of a new species of *Pseudopaludicola* Miranda-Ribeiro, 1926 from the state of São Paulo, Southeastern Brazil (Anura, Leiuperidae)

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### Abstract

I describe here a new species of *Pseudopaludicola* (*P. serrana*) found in the southern limits of the Espinhaço mountain range in the state of Minas Gerais, Brazil. This new species is related to *P. saltica* and *P. murundu* and can be diagnosed by the following combination of characters: (1) long hindlimbs and absence of T-shaped terminal phalanges, (2) single, dark, and subgular vocal sac with dark longitudinal folds in males; (3) immaculate to light brown, nuptial pads in males that cover the external part of finger I; (4) SVL/HL greater than 2.7; and (5) advertisement call with dominant frequency above 5 kHz, pulse duration range between 13 and 23 ms, and mean interval between notes of 177 ms. Tadpoles and the advertisement call are also described.

**Key words:** Anura, species description, *Pseudopaludicola*, tadpole, advertisement call

### Resumo

No presente estudo é descrita uma nova espécie de *Pseudopaludicola* (*P. serrana*), encontrada limite sul da cadeia do Espinhaço, no estado de Minas Gerais, Brasil. Esta nova espécie é relacionada com *P. saltica* e *P. murundu* e é diagnosticada pela combinação de caracteres morfológicos, e bioacústicos: (1) presença de pernas longas e ausência de falanges terminais em formato de T, (2) saco vocal subgular simples, escuro e com pregas longitudinais nos machos; (3) calos sexuais de imaculados a marrom claro nos machos, os quais cobrem a porção externa do dedo I; (4) comprimento rostro-cloacal/comprimento da cabeça maior do que 2,7; e (5) canto de anúncio com frequência dominante maior que 5 kHz, duração do pulso variando entre 13 e 23 ms, e intervalo médio entre notas de cerca de 177 ms. Os girinos e o canto de anúncio são descritos.

**Palavras chave:** Descrição de espécies, Anura, *Pseudopaludicola*, girino, canto de anúncio

### Introduction

The genus *Pseudopaludicola* Miranda-Ribeiro, 1926 has currently 12 species (Frost 2009; Cardozo & Lobo 2009; Toledo *et al.* 2010). The genus is distributed over South America and its species inhabit tropical rainforests (Amazon and Atlantic Forest) and open grasslands (Caatinga, Cerrado, Chaco, and Pantanal). Lynch (1989) proposed two sub-groups for the genus: *P. falcipes* (Hensel, 1867) and *P. pusilla* (Ruthven, 1916) groups. Lynch (1989) suggested that the group of *P. pusilla* (which includes *P. boliviana* Parker, 1927, *P. canga* Giaretta and Kokubum, 2003, *P. pusilla*, and probably *P. ceratophryes* Rivero and Serna, 1985) is monophyletic (based on osteological characters: mainly by the presence of T-shaped terminal phalanges) and the group of *P. falcipes* (which includes the remaining species) would be paraphyletic. To corroborate this hypothesis it would be recommended to have a molecular phylogeny, which is lacking by the present moment. However, it is possible to recognize (based on external morphology: extremely long legs; and bioacoustics: multipulsed long advertisement calls) a sub-group inside the group of *P. falcipes*: the group of *P. saltica* (Cope, 1887), including *P. saltica* and *P. murundu* Toledo, Siqueira, Duarte, Veiga-Menoncello, Recco-