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## A new species of *Pseudopaludicola* (Anura, Leiuperidae) from western Piauí State, Northeast Brazil

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### Abstract

A new species of *Pseudopaludicola* from western Piauí State, Brazil, in the Cerrado domain is described. *Pseudopaludicola parnaíba* **sp. nov.** is a member of the genus *Pseudopaludicola*, on the basis of the presence of one hypertrophied antebrachial tubercle, posterolateral process of the hyoid outlined and epicoracoid cartilages slightly overlapped. The new species is characterized by an advertisement call composed of 6–46 non-pulsed notes per call and dominant frequency of  $4794 \pm 296$  Hz, which supports an independent lineage. Additionally, the small size, body slender, toe tips knobbed with central groove, abdominal fold complete, tibio-tarsal articulation reaching the posterior border of the eye, and prepollex and prehallux composed of base and one element are character states that distinguish *P. parnaíba* from all the members of *Pseudopaludicola*. We provide its formal description with regard to external morphology, osteological characters and advertisement call.

**Key words:** Anura, *Pseudopaludicola* **sp. nov.**, external morphology, osteology, vocalization

### Introduction

The natural group *Pseudopaludicola* comprises small leiuperid frogs, diagnosed by the presence of one antebrachial tubercle on the external border of the forearms, epicoracoid cartilages slightly superposed or not, and posterolateral process of the hyoid outlined or absent (Lobo 1995). This genus, widely distributed across northern and central South America, is currently composed of 15 species: *P. boliviana*, *P. canga*, *P. ceratophyes*, *P. falcipes*, *P. giarettai*, *P. hyleaustalis*, *P. llanera*, *P. mineira*, *P. murundu*, *P. mystacalis*, *P. pusilla*, *P. riopiedadensis*, *P. saltica*, *P. serrana*, and *P. ternetzi* (Frost, 2011, Carvalho, 2012, Pansonato *et al.*, 2012).

Lynch (1989) reviewed the taxonomy of the group and proposed the inclusion of *P. boliviana*, *P. ceratophyes*, *P. llanera* and *P. pusilla* (based on the presence of toe tips T-shaped) in a group that he named *P. pusilla*. In such an important contribution to the knowledge of the genus, Lynch (1989) emphasized the need for a thorough taxonomic review of species distributed in central and southern South America.

Lobo (1995) proposed a phylogenetic hypothesis of *Pseudopaludicola* using cladistic methodology. In this work, the *P. pusilla* group was recovered, supported by the same apomorphies previously proposed by Lynch (1989), where *P. falcipes*, *P. mineira*, *P. mystacalis*, *P. saltica*, and *P. ternetzi* are unassigned to any group.

Several species were subsequently described, considerably increasing taxonomic knowledge of the genus, but its taxonomy has become unstable and species identification difficult. The aim of this work was to describe a new species of *Pseudopaludicola* from western Piauí State, Brazil. We here provide its formal description based on external morphology, osteological characters, and advertisement call. Additionally, the distribution range and natural history notes are discussed.