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## *Pseudopaludicola murundu* (Amphibia, Anura): expansion of distribution to the upper Grande River basin in the Serra da Mantiqueira, State of Minas Gerais, Brazil

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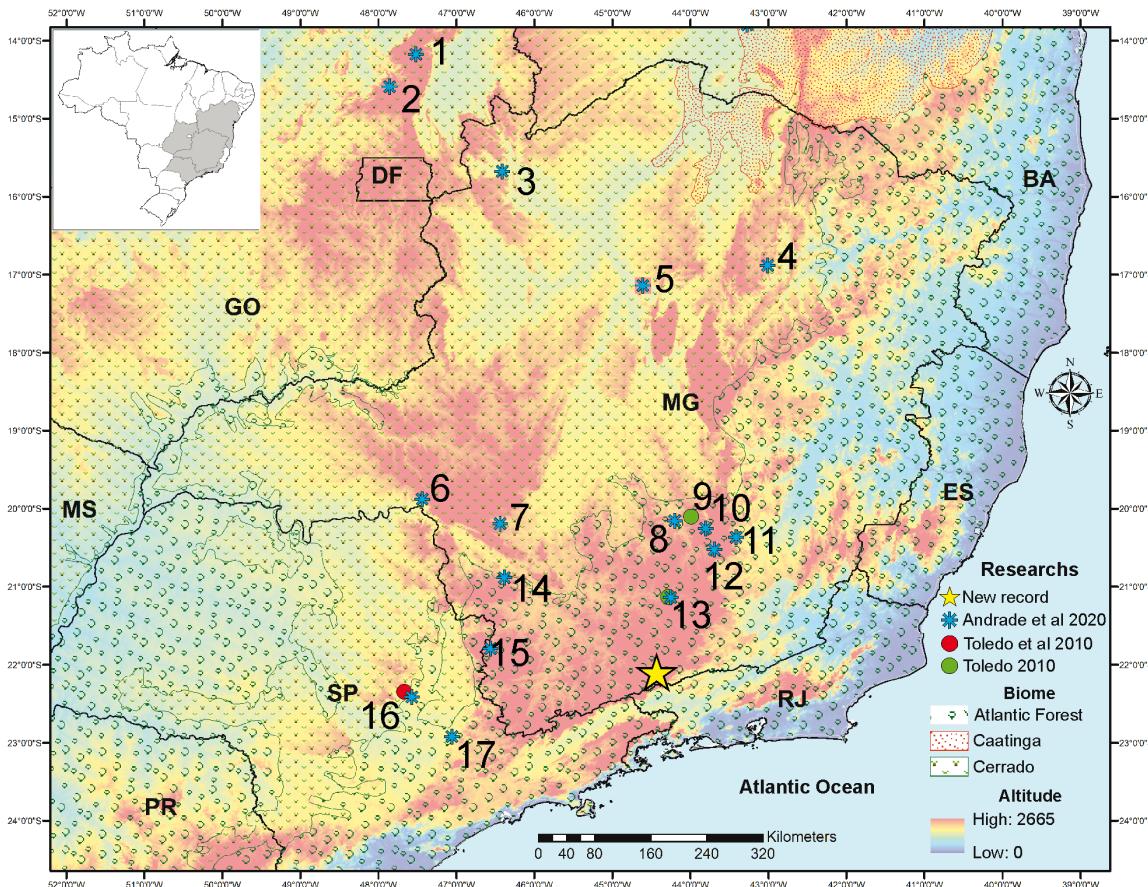
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**RESUMEN:** La distribución geográfica de *Pseudopaludicola murundu* se expande hacia el Área de Proteção Ambiental da Serra da Mantiqueira, Municipio de Bocaina de Minas (22°09'13"S ; 44°24'32"W, datum SIRGAS 2000; 1211 msnm), Estado de Minas Gerais, Brasil, en la cuenca alta del río Grande. Este nuevo registro representa la primera ocurrencia de la especie en la cuenca alta del río Grande, abarcando 330 km desde su localidad tipo y 115 km hacia el sur de São João Del-Rey (MG), la localidad más cercana.

Currently, the genus *Pseudopaludicola* accounts 26 species distributed along the Northern and central South America, in Colombia, Venezuela, Guiana, southwestern Surinam, northeastern Peru, eastern Bolivia, Paraguay, much of Brazil, and northern, eas-

tern, and central Argentina and Uruguay (Frost, 2024). *Pseudopaludicola murundu* (Toledo *et al.*, 2010) belongs to the *P. saltica* group but differing from *P. saltica* by the presence of a darker vocal sac with longitudinal fold; the species was described from the Municipality of Rio



**Figure 1:** Distribution of *Pseudopaludicola murundu*. Red circle, type locality; blue and green dots, previously known occurrences; yellow star, the new record in upper Grande River basin, Bocaina de Minas, State of Minas Gerais, southern Serra da Mantiqueira. 1. Teresina de Goiás, GO; 2. Alto Paraíso de Goiás, GO; 3. Buritis, MG; 4. Botumirim, MG; 5. Buritizeiro, MG; 6. Sacramento, MG; 7. São Roque de Minas, MG; 8. Brumadinho, MG; 9. Itabirito, MG; 10. Mariana, MG; 11. Lavras Novas, MG; 12. Ouro Branco, MG; 13. São João Del-Rey, MG; 14. Alpinópolis, MG; 15. Poços de Caldas, MG; 16. Rio Claro, SP; 17. Campinas, SP. Acronyms of states: DF, Distrito Federal; GO, Goiás; BA, Bahia; MG, Minas Gerais; MS, Mato Grosso do Sul; ES, Espírito Santo; SP, São Paulo; RJ, Rio de Janeiro; PR, Paraná.

**Figura 1:** Distribución de *Pseudopaludicola murundu*. Círculo rojo, localidad tipo; asteriscos azules y puntos verdes, presencias previas; estrella amarilla, la nueva ocurrencia de la especie en la cuenca alta del río Grande, Bocaina de Minas, State of Minas Gerais, southern Serra da Mantiqueira. 1. Teresina de Goiás, GO; 2. Alto Paraíso de Goiás, GO; 3. Buritis, MG; 4. Botumirim, MG; 5. Buritizeiro, MG; 6. Sacramento, MG; 7. São Roque de Minas, MG; 8. Brumadinho, MG; 9. Itabirito, MG; 10. Mariana, MG; 11. Lavras Novas, MG; 12. Ouro Branco, MG; 13. São João Del-Rey, MG; 14. Alpinópolis, MG; 15. Poços de Caldas, MG; 16. Rio Claro, SP; 17. Campinas, SP. Acronyms of states: DF, Distrito Federal; GO, Goiás; BA, Bahia; MG, Minas Gerais; MS, Mato Grosso do Sul; ES, Espírito Santo; SP, São Paulo; RJ, Rio de Janeiro; PR, Paraná.

Claro, State of São Paulo, Southeastern Brazil (Toledo *et al.*, 2010). The species occurs in Cerrado and Atlantic Forest biomes. In the State of Goiás the species was found in the municipalities of Teresina de Goiás and Alto Paraíso de Goiás; in the State of Minas Gerais,

it was found in the municipalities of Buritis, Botumirim, Buritizeiro, Sacramento, São Roque de Minas, Brumadinho, Itabirito, Mariana, Lavras Novas, Ouro Branco, São João Del-Rey, Alpinópolis, and Poços de Caldas. In the State of São Paulo, the species was found,



**Figure 2:** Male unvouchered specimen of *Pseudopaludicola murundu* during the advertisement call in the upper Grande River basin, Bocaina de Minas, MG, Brazil.

**Figura 2:** Ejemplar macho de *Pseudopaludicola murundu* durante el canto de llamada en la cuenca alta del río Grande, Bocaina de Minas, MG, Brasil.

besides its type locality, in Campinas (Andrade *et al.*, 2020; Toledo *et al.*, 2010; Toledo, 2010).

The new occurrence of the species is in the Área de Proteção Ambiental (APA) da Serra da Mantiqueira, Municipality of Bocaina de Minas ( $22^{\circ}9'13"S$ ;  $44^{\circ}24'32"W$ , datum SIRGAS 2000; 1211 masl), State of Minas Gerais, Brazil, in the upper Grande River basin (Figure 1). On 3<sup>rd</sup> December 2015, four specimens of *Pseudopaludicola murundu* (Figure 2) were collected, being three males and one female. The specimens perfectly agree to the diagnostic characters of *P. murundu* presented by Toledo *et al.* (2010) in the snout-vent length (15.2 – 15.3 mm in

males, 17.1 mm in female), long legs, with tibio-tarsal articulation reaching beyond the end of the snout, and single, dark, and subgular vocal sac with dark longitudinal folds, and large, immaculate nuptial pads in males. The recorded advertisement call is congruent to the original description, with a call duration of 0.05 – 0.18 s; note duration 0.002 – 0.02 s; two to nine notes per call; 142 to 300 calls/min; and dominant frequency between 5.16 – 5.81 kHz. The specimens are housed in Museu Nacional, Rio de Janeiro (MNRJ 92968–92971).

This new record represents the first occurrence of the species in the upper Grande River basin, less than 30 km from the Itatiaia massif, comprising 330 km from its type locality and 115 km southwards São João Del-Rey, the nearest locality. The species is a small-sized anuran that vocalizes commonly in the crescent moon (Lima *et al.*, 2021), between October to March – wet weather –, among the ruderal plants of open pastures in the marginal swamps of the Grande River basin.

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