

SHORT NOTE

Range extension of *Trachycephalus imitatrix* (Anura: Hylidae) in the Atlantic Forest of Brazil

Extensión de la distribución de *Trachycephalus imitatrix* (Anura: Hylidae) en la Mata Atlántica de Brasil

Heithor Simão Diniz^{1*}, Clodoaldo Lopes de Assis¹, Rodrigo Carrara Heitor², Renato Neves Feio¹

- Received: 24/Jan/2023
- Accepted: 25/Dec/2023
- Online Publishing: 28/Feb/2024

Citation: Diniz HS, Assis CL, Heitor RC, Feio RN. 2024. Northern range extension of *Trachycephalus imitatrix* (Anura: Hylidae) in the Atlantic Forest of Brazil. *Caldasia* 46(3):698-700. doi: <https://doi.org/10.15446/caldasia.v46n3.106313>

ABSTRACT

The hylid frog *Trachycephalus imitatrix* is known from the Atlantic Forest of Brazil and Argentina. Here, we report a new locality for the species from an Atlantic Forest fragment in the state of Minas Gerais, Brazil. The new record extends the distribution of *T. imitatrix* 232 km to the northeast. We propose more stringent protection of this newly documented site for *T. imitatrix*.

Keywords: Distribution, explosive breeding, lophiohylineae, natural history,

RESUMEN

La rana hílido *Trachycephalus imitatrix* se conoce en la Mata Atlántica de Brasil y Argentina. En esta contribución, reportamos una nueva localidad para la especie de un fragmento de Mata Atlántica en el estado de Minas Gerais, Brasil. Este nuevo registro extiende la distribución de *T. imitatrix* 232 km al noreste. Proponemos una protección más estricta de este sitio recientemente documentado para *T. imitatrix*.

Palabras clave: Distribución, historia natural, lophiohylineae, reproducción explosiva.

¹ Departamento de Biologia Animal, Museu de Zoologia João Moojen, Universidade Federal de Viçosa, Viçosa, Minas Gerais, 36570-900, Brazil. heithorsdiniz@gmail.com, clodoassis@yahoo.com.br, carrara.herpeto@gmail.com, rfeio@ufv.br

² Faculdade de Filosofia, Ciências e Letras de Carangola, Universidade do Estado de Minas Gerais, Carangola, Minas Gerais, 36800-000, Brazil. carrara.herpeto@gmail.com

* Corresponding author



The hylid frog genus *Trachycephalus* Tschudi, 1838 comprises eighteen species, which seven of these species occur in the Atlantic Forest (Frost 2023). *Trachycephalus imitatrix* (Miranda-Ribeiro, 1926) can be distinguished from all congeners in this region by having a large brown parallelogram with dark edges that covers its dorsum from the eyes to the sacral region (Lutz 1973). This species is endemic to the Atlantic Forest and is known from mountainous regions in the southeastern Brazil (Frost 2023). Céspedes *et al.* (2020) recently reported the first occurrence of the species from Argentina. Here, we expand the distribution of *T. imitatrix* in Brazil.

Our discovery took place on 22 Oct 2013 during a field expedition in Espera Feliz municipality, Minas Gerais,

Brazil (20°31'33.24" South 42°03'39.60" West, 1340 m elevation). The fragment sits within the northern portion of the Serra da Mantiqueira. We observed numerous *T. imitatrix* during a reproductive explosion on a rainy night at a natural pond populated with emergent vegetation (*Typha* sp.). The location is a well-preserved area within the forest fragment, although it showed signs of cattle trampling. We deposited one male and one female, in the herpetological collection of the Museu de Zoologia João Moojen, Universidade Federal de Viçosa (MZUFV 16001–16002). Specimen collection was authorized under license SISBIO 10504-5. Subsequent field expeditions were conducted in the area, but *T. imitatrix* was not observed again.

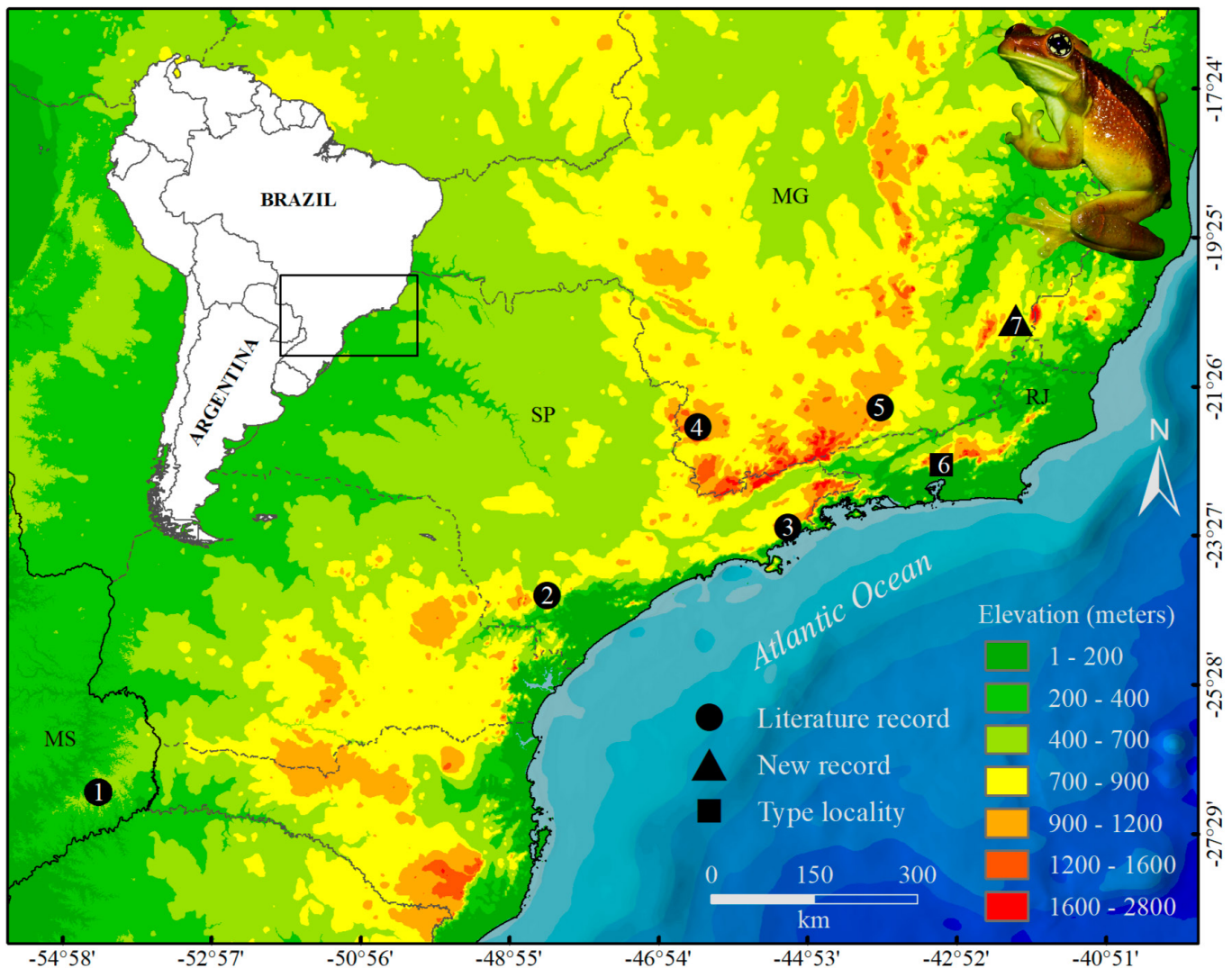


Figure 1. Locality-level geographic distribution of *Trachycephalus imitatrix*: (1) Céspedes *et al.* (2020); (2) Bertoluci and Rodrigues (2002); (3) Silva *et al.* (2017); (4) Matavelli *et al.* (2018); (5) Cruz *et al.* (2009); (6) Miranda-Ribeiro (1926); (7) present record.

This report expands the geographic range of *T. imitatrix* 232 km northeast of the nearest previously known locality in the Parque Estadual do Ibitipoca (Fig. 1). The available scientific literature for *T. imitatrix* suggests that this species is associated with protected areas (Lutz 1973, Bertoluci and Rodrigues 2002, Cruz *et al.* 2009, Silva *et al.* 2017, Matavelli *et al.* 2018), which could indicate its low tolerance for human disturbance. Although the forest fragment where we discovered *T. imitatrix* lies within an “Área de Proteção Ambiental”, this Brazilian protected area category does not guarantee robust protection (Euclides and Magalhães 2006). We thus encourage the creation of a more stringent protected area to better safeguard this species and other co-occurring biodiversity.

AUTHORS' CONTRIBUTION

HSD wrote the text; CLA produced the map and wrote the text; RCH collected field data, identified the species; RNF contributed to writing and final review of the text.

ACKNOWLEDGMENTS

HSD thanks the “Fundação de Amparo à Pesquisa de Minas Gerais” for the master’s scholarship. We thank Dr. Adam G. Clause and the anonymous reviewers for their suggestions.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

LITERATURE CITED

- Bertoluci J, Rodrigues MT. 2002. Utilização de habitats reprodutivos e micro-habitats de vocalização em uma taxocenose de anuros (Amphibia) da mata atlântica, Brasil. *Pap. Avulsos de Zool.* 42(11):287–297. doi: <https://www.doi.org/10.1590/S0031-10492002001100001>
- Céspedes JA, Stetson R, Arias AM, Motte M. 2020. Una buena noticia para la fauna de anfibios de Argentina: *Trachycephalus imitatrix* (Anura: Hylidae). *Ext. Innov. Transfer. Tech.: Claves Desarr.* 6:104–111. doi: <https://www.doi.org/10.30972/eitt.604419>
- Cruz CAG, Feio RN, Caramaschi U. 2009. *Anfíbios do Ibitipoca*. BH: Bicho do Mato Editora.
- Euclides ACP, Magalhães SRA. 2006. A Área de Proteção Ambiental (APA) e o ICMS Ecológico em Minas Gerais: algumas reflexões. *Rev. Geog.* 2(2):39–55. doi: <https://www.doi.org/10.35699/2237-549X.13205>
- Frost DR. c2023. Amphibian species of the world: an online reference. [last accessed: 7 Oct 2023]. <https://amphibiansoftheworld.amnh.org/>
- Lutz, B. 1973. *Brazilian Species of Hyla*. Austin: University of Texas Press.
- Matavelli R, Oliveira J, Godoy E, Ribeiro MC, Bertoluci J. 2018. Expanding the known range of *Trachycephalus imitatrix* (Anura: Hylidae) for the state of Minas Gerais, southeastern Brazil (2018). *Herpetol. Notes.* 11:353–355.
- Miranda-Ribeiro A. 1926. Notas para servirem ao estudo dos Gymnobatrachios (Anura) brasileiros. *Arq. Mus. Nac.* 27:1–227.
- Silva FR, Lyra ML, Haddad CFB, Rossa-Feres DC. 2017. Expanding the knowledge about the occurrence of anurans in the highest amphibian diversity area of Atlantic Forest: Parque Estadual da Serra do Mar, São Paulo, Brazil. *Biota Neotrop.* 17(2):1–13. doi: <https://www.doi.org/10.1590/1676-0611-BN-2016-0282>.