

Amphibia, Anura, Leptodactylidae, *Leptodactylus furnarius* Sazima and Bokermann, 1978: Geographic distribution extension in Brazil

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ABSTRACT: The geographic distribution of *Leptodactylus furnarius* Sazima and Bokermann, 1978 comprises Argentina, Brazil (southern, southeastern, and west-central regions), Paraguay, and Uruguay. Herein, we report for the first time the occurrence of *L. furnarius* in northeastern and north regions of Brazil, at the states of Bahia and Tocantins, respectively.

Leptodactylus furnarius Sazima and Bokermann, 1978 is a median size frog of the *Leptodactylus fuscus* group and occurs in open areas, including Cerrado, Atlantic Forest, and Pampa biomes (Colli *et al.* 2004; Heyer and Heyer 2004; Baldo *et al.* 2008; Zank *et al.* 2008). Its reproduction occurs in ponds and swamps, where males call on wet or waterlogged ground, among grasses or into internal chambers that they build (Achaval and Olmos 2003; Eterovick and Sazima 2004; Giaretta and Kokubum, 2004).

Geographic distribution of *Leptodactylus furnarius* includes Argentina, Brazil, Paraguay, and Uruguay (see summarized data in Baldo *et al.* 2008 and Frost 2009). In Brazil, this species has been recorded in southern (Rio Grande do Sul and Paraná), southeastern (São Paulo and Minas Gerais), and west-central regions (Goiás, Distrito Federal, Mato Grosso, and Mato Grosso do Sul) (Heyer and Heyer 2004; Silveira 2006; Baldo *et al.* 2008; Zank *et al.* 2008; Silva Jr. *et al.* 2009).

Herein, we report for the first time the occurrence of *L. furnarius* in northeastern and north regions of Brazil, at the states of Bahia and Tocantins, respectively. On 29 October 2008, we collected one male of *L. furnarius* at the edge of a pond in a “campo cerrado” (grassland with sparse small trees) (Figure 1) in the Caetité municipality, state of Bahia (14°07'48" S, 42°30'16" W, 900 m). On 31 January 2009, we found males of *L. furnarius* (Figure 2) in calling activity at hydrophilic grasslands associated to “vereda” (palm swamp forest) (Figure 1), a physiognomy of cerrado vegetation, in the Taguatinga municipality, state



FIGURE 1. Habitat of *Leptodactylus furnarius*: A) Grassland in the municipality of Caetité, state of Bahia, B) Hydrophilic grasslands associated to Vereda in the municipality of Taguatinga, state of Tocantins State, Brazil.



FIGURE 2. Adult male of *Leptodactylus furnarius* from municipality of Taguatinga, state of Tocantins, Brazil. Photo: T.G. Santos.

of Tocantins (12°22'14.2" S, 46°23'28.8" W, 585 m a.s.l.). Collecting permit (#17910-1) was granted by the Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio).

Our records extend the geographic distribution of *L. furnarius* in about 312 km northeastern from Botumirim,

state of Minas Gerais (Feio and Caramaschi 1995) and about 408 km northeastern from Brasília, Distrito Federal (Heyer 1978) (Figure 3). Voucher specimens are housed in the Coleção de Anfíbios da Universidade Estadual Paulista, Rio Claro, SP (CFBH 22064 and 21075).

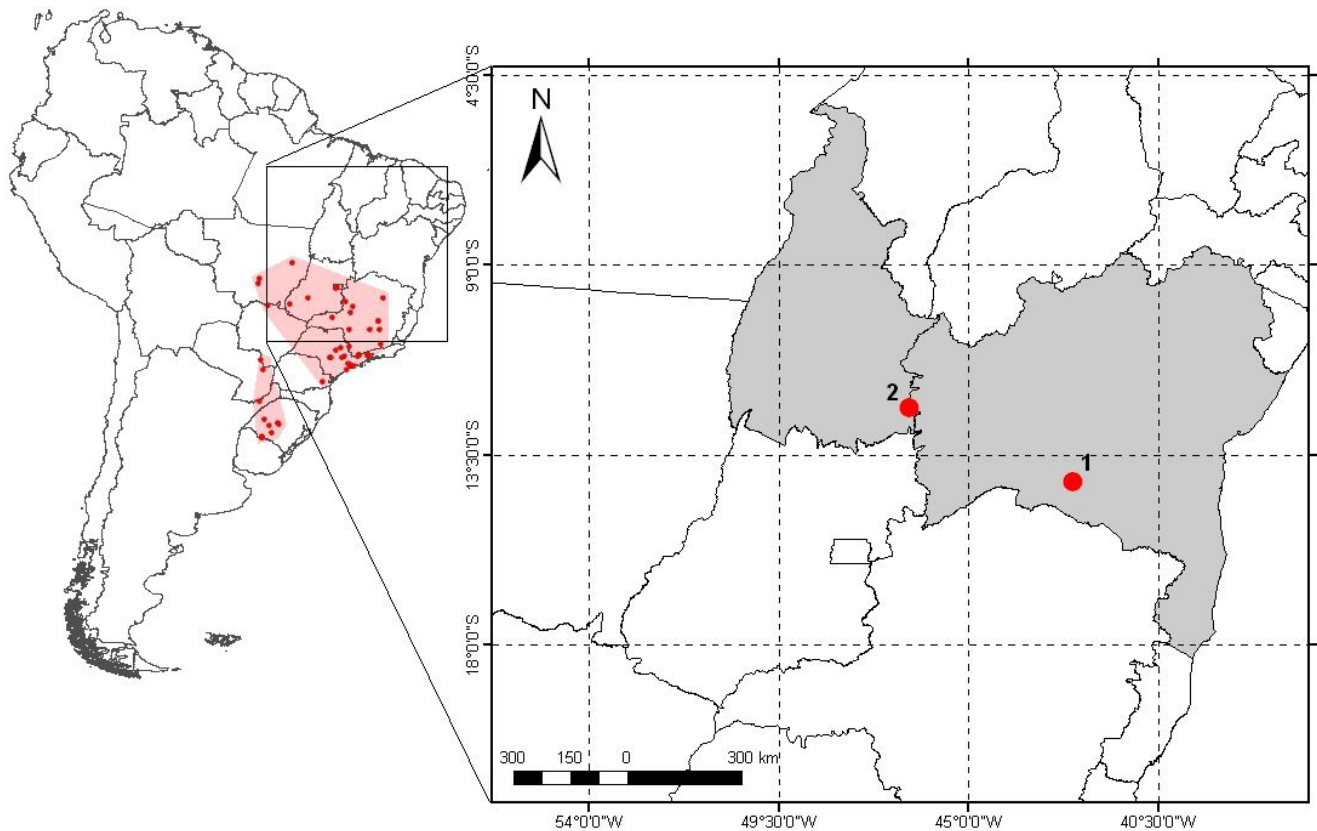


FIGURE 3. Geographic distribution of *Leptodactylus furnarius* in South America: points in polygons, historical records (according to Heyer and Heyer 2004*; Brusquetti and Lavilla 2006; Silveira 2006; Baldo et al. 2008; Zank et al. 2008 and Silva Jr et al. 2009); 1) new record from municipality of Caetitê, State of Bahia (BA); 2) new record from Municipality of Taguatinga, State of Tocantins (TO).

* We corrected the geographic coordinates of the Reserva Biológica do Jardim Botânico, Distrito Federal, erroneously reported in Heyer's database (<http://learning.richmond.edu/Leptodactylus>), according to original publication of Moreira and Barreto (1996).

LITERATURE CITED

- Achaval, F. and A. Olmos. 2003. *Anfibios y reptiles del Uruguay*. Montevideo: Graphis. 136 p.
- Baldo, D., C. Tomatis and M.V. Segalla. 2008. Amphibia, Anura, Leptodactylidae, *Leptodactylus furnarius*: New country record, geographic distribution map and advertisement call. *Check List* 4(2): 98–102.
- Brusquetti, F. and E.O. Lavilla. 2006. Lista comentada de los anfibios de Paraguay. *Cuadernos de Herpetología* 20(2): 3–79.
- Colli, G., L.B. Nascimento, D. Silvano and J. Langone. 2004. *Leptodactylus furnarius*. IUCN 2009. IUCN Red List of Threatened Species. Version 2009.1. Electronic database accessible at <http://www.iucnredlist.org>. Captured on 20 September 2009.
- Feio, R.N. and U. Caramaschi. 1995. Aspectos zoogeográficos dos anfíbios do médio Rio Jequitinhonha, nordeste de Minas Gerais, Brasil. *Revista Ceres* 42: 53–61.
- Frost, D.R. 2009. *Amphibian Species of the World: An online reference. Version 5.3*. Electronic database accessible at <http://research.amnh.org/herpetology/amphibia/index.php>. American Museum of Natural History, New York, USA. Captured on 20 December 2009.
- Giaretta, A.A. and M.N.C. Kokubum. 2004. Reproductive ecology of *Leptodactylus furnarius* Sazima & Bokermann, 1978 a frog that lay eggs in underground chambers. *Herpetozoa* 16(3/4): 115–126.
- Eterovick, P.C. and I. Sazima. 2004. *Anfibios da Serra do Cipó/ Amphibians from the Serra do Cipó, Minas Gerais – Brasil*. Belo Horizonte: PUC Minas. 152 p.

- Heyer, W.R. 1978. Systematics of the *fuscus* group of the frog genus *Leptodactylus* (Amphibia, Leptodactylidae). *Natural History Museum of Los Angeles County, Science Bulletin* 29: 1–85.
- Heyer, W.R. and M.M. Heyer. 2004. *Leptodactylus furnarius*. *Catalogue of American Amphibians and Reptiles* (785): 1–5.
- Moreira, G. and L. Barreto. 1996. Alimentação e variação sazonal na frequência de capturas de anuros em duas localidades do Brasil Central. *Revista Brasileira de Zoologia* 13(2): 313–320.
- Silva Jr., N.J., C.E.D. Cintra, H.L.R. Silva, M.C. Costa, C.A. Souza, A.A. Pachêco Jr. and F.A. Gonçalves. 2009. Herpetofauna, Ponte de Pedra Hydroelectric Power Plant, states of Mato Grosso and Mato Grosso do Sul, Brazil. *Check List* 5(3): 518–525.
- Silveira, A.L. 2006. Anfíbios do município de João Pinheiro, uma área de Cerrado no noroeste de Minas Gerais, Brasil. *Arquivos do Museu Nacional, Rio de Janeiro* 64(2): 131–139.
- Zank, C., I.L. Kaefer, P. Colombo, R. Lingnau, A.P. Santos-Jr, C. Both, F.M. Dagostini, R.C. Santos and S.T.Z. Cechin. 2008. Amphibia, Anura, Leptodactylidae, *Leptodactylus furnarius*: rediscovery and distribution extension in the state of Rio Grande do Sul, Brazil. *Check List* 4(1): 89–91.

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