

Revista CEPSUL

Biodiversidade e Conservação Marinha

NOTA CIENTÍFICA

New record and distribution extension of *Hypsiboas crepitans*(Wied-Neuwied, 1824) (Anura, Hylidae) to the northern part of the state of Piauí, Brazil

RAFAEL GUIMARÃES MACEDO ¹, ETIELLE BARROSO DE ANDRADE ¹, JOSÉ ROBERTO DE SOUZA DE ALMEIDA LEITE ¹

¹ Universidade Federal do Piauí - UFPI, Campus Ministro Reis Velloso, Avenida São Sebastião, 2819 - Reis Velloso - CEP: 64200-020 - Parnaíba - PI, Brasil, e-mail: rguimaraesmacedo@gmail.com; etlandrade@gmail.com; jrsaleite@gmail.com.

Resumo. Novo registro e extensão da distribuição de *Hypsiboas crepitans* (Wied-Neuwied, 1824) (Anura, Hylidae) para o norte do estado do Piauí, Brasil. Relatamos o aumento da extensão da distribuição geográfica de *Hypsiboas crepitans* (Amphibia, Anura) na região do Delta do Rio Parnaíba, no município de Parnaíba, Estado do Piauí, nordeste do Brasil. Dois indivíduos adultos, apresentando comprimento rostro-cloacal (CRC) de 51,2mm e 47,6mm, foram coletados em uma área úmida nas proximidades do Rio Igaraçu (2°53'54 .80 "S e 41°45'30 0,97" W), ampliando a distribuição conhecida de *H. crepitans* 450 km a norte.

Palavras-chave: Distribuição; Parnaíba; Delta; Anuros.

Abstract. We report an increase of the extension of the geographical distribution of *Hypsiboas crepitans* (Amphibia, Anura) in the region of the Parnaíba Delta River, municipality of Parnaíba, state of Piauí, northeastern Brazil. Two adult individuals, presenting snout-vent length (SVL) of 51.2 mm and 47.6 mm, were collected in a wet area in proximity to the Igaraçu River (2°53'54.80"S and 41°45'30.97"W), increasing the known distribution of *H. crepitans* by 450 km northwards.

Key words: Distribution; Parnaíba; Delta; Frogs.

Hypsiboas crepitans (Wied-Neuwied, 1824) is a hylid treefrog that belongs to the Hypsiboas faber species group (sensu Faivovich et al., 2005), whose type-locality is Tamburil, Condeúba Municipality in the southern state of Bahia (Bokermann, 1966) (Figure 1A). Although considered a common species, information on its biology and ecology is scarcely available (Casal & Juncá, 2008). This species is currently, registered as two distinct populations, one of them in Panamá, north of Colombia, Venezuela, north of Brazil, in the islands of Trinidad and Tobago, and in great part of the Guyanas. The second population is present at the Atlantic Forest of Brazil (Frost, 2011). Due to its wide geographic distribution and to the large inter-population variability of color patterns, body size, advertisement call and reproductive biology, some authors have discussed the existence of several species known as H. crepitans (Faivovich et al., 2005; Casal & Juncá, 2008; Martins et al., 2009).

During an expedition set to characterize the fauna and the distribution of amphibians in the Parnaíba Delta River region, at the northernmost of the state of Piauí, two adult specimens of *H. crepitans* were collected (SLV = 51.2 mm and 47.6 mm), on the marginal vegetation (Figure 1-A), in September of 2010, in the city of Parnaíba, PI, Brasil. Voucher species were deposited in the Coleção Herpetológica Delta do Parnaíba (CHDP) at Universi-

dade Federal do Piauí – CMRV/UFPI, Parnaíba, Brazil (IBAMA license number 17727-1/2008), under the register numbers CHDP-0684 and CHDP-0585. One of the specimens was collected in a wet area at the shores of the Iguaçu River (2°53′54.80″ S and 41°45′30.97″ W) and the other individual was collected at Ilha Grande de Santa Isabel (2°53′52.65″S and 41°47′13.90″W), approximately 3 km away from the first site, both collected in the city of Parnaíba-PI, Brazil.

The species was identified by comparing morphologic characteristics and the literature available It was later confirmed by two experts.

The fitofisionomy of the area (Figure 1-B) is characterized by a group of small islands composed of *Juncus effusus* Linnaeus (soft rush) and aquatic macrophyte, mainly of the *Eichhornia crassipes* (Martius) Solms-Laubach (water hyacinth) and *Typha domingensis* Pers. (cumbungi) species. The place where the second specimen was collected is an anthropized rural area with vegetation composed mainly of *Copernicia cerifera* (Miller) H.E. Moore (carnauba) presenting wet areas only during the rainy period (March to July).

The new register confirms the lack of studies in the northeast region of Brazil and justifies the preoccupation with the characterization of the amphibian communities of the





Figure 1. Adult of *Hypsiboas crepitans* (A). Shore of Igaraçu River, gathering spot of *Hypsiboas crepitans* (B).

32 R. GUIMARÃES *ET ALL.*

state of Piauí, which is still very recent (Andrade *et al.*, 2011; Leite Jr, *et al.*, 2008; Silva *et al.*, 2007) and occurs in a fragmented way in different regions.

The lack of information about the species decreases the exchange of information on local diversity in the scientific community and generates a misunderstanding that there is a low variety of amphibians in the region, which is what may have happened in the case of *H. crepitans* since there were no records of this species in the coast of the state of Piauí.

This new report extends the geographical distribution of *H. crepitans* 450 km to the northeast in a straight line from the municipality of Floriano, Piauí, site of the first record for the state (Zaher, 2001) that was the only registry for the State and decreases the distribution gap in relation to the populations found in the oriental region of Brazil and in the north portion of South America (Figure 2). This distribution shows that *H. crepitans* is no longer restricted to areas of Cerrado in the state, as it was found in wet areas near the Piauí coast.

Acknowledgments

The authors thank Projeto Biodiversidade do Delta - PROBID. Lucas Kuckelhaus for English revision. Dr. Luis Norberto Weber and Dr. Washington Luiz da Silva Vieira by identification of species. Financial support was provided by Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Capes, through Programa de Pós Graduação em Biodiversidade e Conservação, Universidade Federal do Maranhão - UFMA and CNPq Universal 480997/2007-1/ Edital MCT/CNPq 15/2007.

References

ANDRADE, E.B., GUIMARÃES, R. LEITE, M.A.Jr., J.R.S.A. Leite. 2011. Amphibia, Anura, Leptodactylidae, *Leptodactylus sy-phax* Bokermann, 1969: Distribution extension and geographic distribution map. Check List (7): 592-593.

BOKERMANN, W.C. 1966. Lista anotada das localidades tipo de anfíbios brasileiros. RUSP, São Paulo. 183 p.

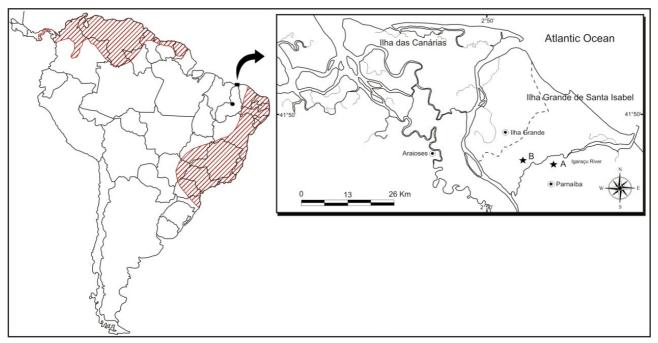


Figura 2. Distribution of *Hypsiboas crepitans* according to the IUCN (2010). The circle indicates the first register of the species in the state of Piauí, and the A and B spots on the map, represented by a star, indicate the new registers for the Piauí coast. The dotted line represents the political division between the cities of Ilha Grande and Parnaíba.

CASAL, F.C. and JUNCÁ, F.A. 2008. Girino e canto de anúncio de *Hypsiboas crepitans* (Amphibia: Anura: Hylidae) do estado da Bahia, Brasil, e considerações taxonômicas. *Boletim do Museu Paraense Emílio Goeldi Ciências Naturais*, 3(3):

217-224.

- FAIVOVICH, J., HADDAD, C.F.B., GARCIA, P.C.A., FROST, D.R., CAMPBELL, J.A.
- and WHEELER, W.C. 2005 Systematic review of the frog family *Hylidae*, with special reference to *Hylinae*: phylogenetic analysis and taxonomic revision. *Bulletin of the American Museum of Natural History*, 294: 1-240.
- FROST, D.R. 2011. Amphibian Species of the World: an Online Reference. Version 5.5 (31 January, 2011). Electronic Database accessible at. http://research.amnh.org/vz/herpetology/amphibia/American Museum of Natural History, New York, USA.
- LEITE, M.A.Jr., JOHNNY M.S.S., LEITE, R.R.S., Toledo, L.F., Loebmann, D., S. J.R.S.A. Leite. 2008. Amphibia, Anura, Hylidae, *Scinax fuscomarginatus*: Distribution extension. Check List 4(4): 475-477.
- MARTINS, L.B., SILVA, W.R. and GIARETTA, A.A. 2009. Distribution and calls of two South American frogs (Anura). *Salamandra*, 45, p. 106-109.
- SILVA, G.R., SANTOS, C.L., ALVES, M.R., SOU-SA, S.D.V. and ANNUNZIATA, B.B. 2007. Anfíbios das dunas litorâneas do extremo norte do estado do Piauí, Brasil. *Sitientibus Série Ciências Biol.*, 7(4): 334-340.
- ZAHER, H. 2001. Diversidade de vertebrados terrestres da Estação Ecológica de Uruçuí-Una, Piauí: Relatório Final. São Paulo: USP, 110 p.

Revista CEPSUL - Biodiversidade e Conservação Marinha (2011) 2 (1): 30-33