

Amphibia, Anura, Hylidae, Hypsiboas exastis (Caramaschi and Rodrigues, 2003): Distribution extension and first record in the state of Alagoas, Brazil

Pierre-Alexandre Bourgeois

Université de Sherbrooke, Département de Biologie. 2500 boul. de l'Université, J1K 2R1. Sherbrooke, Québec, Canada. E-mail: sprint797@hotmail.com

ABSTRACT: The hylid frog Hypsiboas exastis has recently been described and is only known from few locations along the Atlantic coast of northeastern Brazil. This work reports this species in an Atlantic rainforest fragment north of the São Francisco River, the Coimbra forest, in the state of Alagoas. The new record expands the geographical distribution of H. exastis approximately 70 km to the northeast.

Hypsiboas exastis Caramaschi and Rodrigues, 2003 is a large sized treefrog belonging to the Hypsiboas faber species group (Faivovich et al. 2005). The geographical distribution of the species extends only from the type locality, in the municipality of São José da Vitória (15°09' S, 39°18' W), and from the municipalities of Wenceslau Guimarães (13°36' S, 39°43' W) and Uruçuca (14°34' S, 39°17' W), all in southern state of Bahia, Brazil (Caramaschi and Rodrigues 2003; Loebmann et al. 2008). It also known from the municipality of Quebrangulo (09°15′50" S, 36°25′40" W), state of Alagoas, Brazil (Silva et al. 2008). Hypsiboas exastis occurs in the Atlantic forest domain between 100 and 490 m elevation (Caramaschi and Rodrigues 2003; Silva et al. 2008).

During a short survey on March 2007 (collection permit IBAMA #11218-1), two adults of H. exastis (Figure 1) were collected while calling in a broad-leaved shrub and a banana tree 2 m above the ground near a small stream. Specimens were located at about 390 m elevation and adjacent to the Coimbra forest edge, a large Atlantic forest fragment (3,500 ha; 08°59'28" S, 35°50'22" W) at the Usina Serra Grande, municipality of Ibateguara, northern of the state of Alagoas (Figure 2). Other individuals of H. exastis were observed and heard at the capture site (Figure 3), and small groups localized in the edge and around the Coimbra fragment during the survey.

Comparison with the holotype description made by Caramaschi and Rodrigues (2003) permitted the species identification. Shared morphological features include: 1) large size; 2) dorsum granulose; 3) a developed crenulated fringe along external border of forearm, finger IV, foot, and toe V; 4) calcar appendix conspicuous; 5) anal plate distinct, inferiorly delimited by a transverse row of white tubercules; 6) dorsum grayish yellow (in life) or brown (in preservative), with dark brown to black marks without forming a definite pattern and resembling tree bark with lichens; 7) in life, palm of hand bluish yellow, fingers and disks deep blue, and webbing yellowish gray; 8) in life, sole of foot gray, toes and disks deep blue, and webbing black.

Voucher specimens are deposited at the Coleção Herpetológica da Universidade Federal Rural de Pernambuco in Serra Talhada, state of Pernambuco, under the collection numbers CHURPE602 (75 mm snout-vent length) and CHURPE603 (78 mm snout-vent length).

The new record extends the geographical distribution of *H. exastis* in approximately 70 km to the northeast. Although *H. exastis* has only been recently described and is known from few locations, it is probably present in isolated populations in other forest fragments in the central and



FIGURE 1. Dorsal view of Hypsiboas exastis (voucher specimen CHUFRPE603).

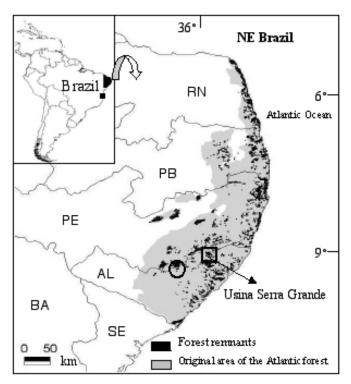


FIGURE 2. Distribution map of Hypsiboas exastis. Solid square: type locality, state of Bahia; empty circle: previously known northernmost record, state of Alagoas; and empty square: new record, state of Alagoas.



FIGURE 3. Adult Hypsiboas exastis, municipality of Ibateguara, state of Alagoas, Brazil.

northern Atlantic forest. Suitable habitats may still persist in the largest forested areas of the state of Alagoas and in the eastern part of the state of Pernambuco (Carnaval and Peixoto 2004). The few records are potentially explained by a lack of inventories and published observations, particularly in Atlantic forest areas of extreme northeastern Brazil. The Coimbra forest represents one of the last large fragments in the Atlantic forest north of the São Francisco River (Melo et al. 2006) that sustain a wide variety of appropriate habitats for amphibians, including streams, ponds and fields of terrestrial bromeliads. However, this is the first survey of the amphibian fauna for the area.

ACKNOWLEDGMENTS: The author is grateful to E.M. dos Santos from Universidade Federal Rural de Pernambuco for scientific support, to Universidade Federal de Pernambuco and Usina Serra Grande for logistical support and appreciated welcome, and to U. Caramaschi, A.C.O.Q. Carnaval and B.V.S. Pimenta for scientific insights.

LITERATURE CITED

Caramaschi, U. and M.T. Rodrigues. 2003. A new large treefrog species, genus Hyla Laurenti, 1768, from Southern Bahia, Brazil (Amphibia, Anura, Hylidae). Arquivos do Museu Nacional 61(4): 255-260.

Carnaval, A.C.O.Q. and O.L. Peixoto. 2004. A new species of Hyla from northeastern Brazil (Amphibia, Anura, Hylidae). Herpetologica 60(3): 387-395.

Faivovich, J., C.F.B. Haddad, P.C.A. Garcia, D.R. Frost, J.A. Campbell and W.C. Wheeler. 2005. Systematic review of the frog family Hylidae, with special reference to the Hylinae: phylogenetic analysis and taxonomic revision. Bulletin of the American Museum of Natural History 294: 1-240.

Loebmann, D., J. Zina, O.G.S. Araújo, L.F. Toledo and C.F.B. Haddad. 2008. Acoustic repertory of Hypsiboas exastis (Caramaschi and Rodrigues, 2003) (Amphibia, Hylidae). South American Journal of Herpetology

Melo, F.P.L., R. Dirzo and M. Tabarelli. 2006. Biased seed rain in forest edges: Evidence from the Brazilian Atlantic forest. Biological Conservation 132(1): 50-60.

Silva, G.R., C. Luna-Dias, S.P. Carvalho-e-Silva and A.M.P.T. Carvalho-e-Silva. 2008. Distribution extension and new state record for Hypsiboas exastis (Caramaschi and Rodrigues, 2003) (Amphibia, Hylidae) in Brazil. Herpetotropicos 4(2): 58.

RECEIVED: June 2010 REVISED: August 2010 ACCEPTED: September 2010 Published online: November 2010

EDITORIAL RESPONSIBILITY: Marcelo N. de C. Kokubum