

DISTRIBUTION EXTENSION OF *HYPSIBOAS PUNCTATUS* (SCHNEIDER, 1799) IN THE MARANHÃO STATE, BRAZIL (ANURA, HYLIDAE).

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Abstract: In this study we report the geographical distribution extension of a hylid frog species in the State of Maranhão, northeast Brazil. This is the first record of *Hypsiboas punctatus* in the Amazonian and Cerrado ecosystems from central and northeast of this State. This new record of *H. punctatus* in two distinct biomes provides relevant information to future studies aiming to clarify its taxonomic status.

Key words: geographic distribution, Amphibia, northeast Brazil, Amazonia, Cerrado.

Resumen: G.V. de Andrade, G.R. Silva, M.R. Alves y C.L. Santos. "Expansión de la distribución de *Hypsiboas punctatus* (Schneider, 1799) en el Estado de Maranhão, Brasil". En este estudio informamos de la expansión de la distribución geográfica de una especie de hílido en el Estado de Maranhão, noreste de Brasil. Este es el primer registro de *Hypsiboas punctatus* en los ecosistemas de la Amazonia y Cerrado desde el centro y noreste del estado. Este nuevo registro de *H. punctatus* en dos biomas diferentes proporciona información relevante para estudios futuros con el fin de aclarar su estatus taxonómico.

Palabras Claves: distribución geográfica, Amphibia, noreste del Brasil, Amazonia, Cerrado.

INTRODUCTION

The *Hypsiboas punctatus* group (as currently defined by Faivovich *et al.* 2005) is widely distributed in South America, and is constituted by *H. alemani* (Rivero, 1964), *H. atlanticus* (Caramaschi and Velosa, 1996), *H. granosus* (Boulenger, 1882), *H. hobbsi* (Cochran and Goin, 1970), *H. ornatissimus* (Noble, 1923), *H. picturatus* (Boulenger, 1882), *H. punctatus* (Schneider, 1799), and *H. sibleszi* (Rivero, 1971).

Hypsiboas punctatus presents a highly variable color pattern, with a predominantly green background with small red spots scattered on the dorsum (nocturnal coloration). The red spots become diffuse during daytime, restricted to tiny red-brown flecks, or they are absent (Duellman 1974). This species occurs in seasonally flooded forest of the Amazon Basin of Ecuador, Peru, Bolivia, and Brazil and the Orinoco Basin; central Brazil; Chaco of

Paraguay, and Argentina; Guianas, northern Colombia in the Sierra Santa Marta, Venezuela (Amazonas, Apure, Bolívar, and Sucre), and Trinidad (Frost 2009). In Brazil, besides the Amazon Basin and central area (Frost 2009) this species is registered in the Atlantic Forest biome of Paraná State (South), Municipality of Diamante do Norte (Bernarde 1998), São Paulo State (Southeast), Municipality of Teodoro Sampaio, and Pernambuco State (Northeast), Municipality of Igarassu (Vasconcelos *et al.* 2006). This work is aimed to report a range expansion in the distribution of this hylid frog species in the State of Maranhão, Brazil.

NEW DISTRIBUTION RECORDS

In 1990 we first collected some specimens of *H. punctatus* (Herpetological Collection of the Universidade Federal do Maranhão,

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HUFMA 257-259) in the Cerrado region of center-East of Maranhão State, Municipality of Mirador (6°22'4"S, 44°21'28"W). In 2002 we collected a specimen (HUFMA 515) (Fig. 1) from the Cerrado of northeastern Maranhão, Municipality of Urbano Santos (3°12'29"S, 43°24'16"W). In 2005 we further collected five specimens (Herpetological Collection of the Universidade Estadual do Piauí, UESPI 67, 115-116, 157-158), also in the northeastern Cerrado, Municipality of Santana do Maranhão (3°06'40"S, 42°24'44"W). In 1998 we collected four males (HUFMA 732-735) in the Amazonian region of center-western Maranhão, Municipality of São Pedro da Água Branca (5°08'00" S, 48°17'27"W).



FIG. 1. Adult male of *Hypsiboas punctatus* (HUFMA 515) from Urbano Santos, Maranhão State. Photo by Gilda Vasconcellos de Andrade.

Macho adulto de Hypsiboas punctatus (HUFMA 515) de Urbano Santos, Estado de Maranhão. Foto por Gilda Vasconcellos de Andrade.

Thus, herein we report the first register of *H. punctatus* in the center-East, center-West, and Northeast of Maranhão State, and show that this species is widely distributed in this State (Fig. 2), in the Amazonian and Cerrado biomes.

DISCUSSION

This species was also cited for other localities in the Cerrado Biome of Maranhão: the southern Cerrado of Maranhão by Barreto *et al.* (2007), in Balsas region (07°39'02"S, 46°21'31"W and 07°47'10"S, 46°10'16"W), and by Pavan (2007), in southwestern Cerrado, Carolina (07°15'27"S, 47°24'09"W) and Estreito (06°43'47"S, 47°27'18"W) Municipalities. *Hypsiboas punctatus* was also registered in open areas and forest edges of this last Municipality (06°31'49"S, 47°23'34"W) by Brasileiro *et al.* (2008).

Napoli and Cruz (2005) analyzed the vocalization of a calling male recorded in Urbano Santos by one of us (GVA). Although emphasizing the limited data, they concluded that it is similar to that from another localities of northern South America (Manaus, Amazonas State, Brazil; Santa Cecilia, Ecuador; French Guiana;

Suriname), and different from that of Acre State (Brazil), Bolivia and Chaco in Argentina. As emphasized by these authors, it is still lacking a fully morphologic, acoustic, and molecular comparison among the populations of this species throughout their distribution. This comparison would be especially interesting among the Amazonian and Cerrado localities of Maranhão State, where calling males are found both in forest and open areas.

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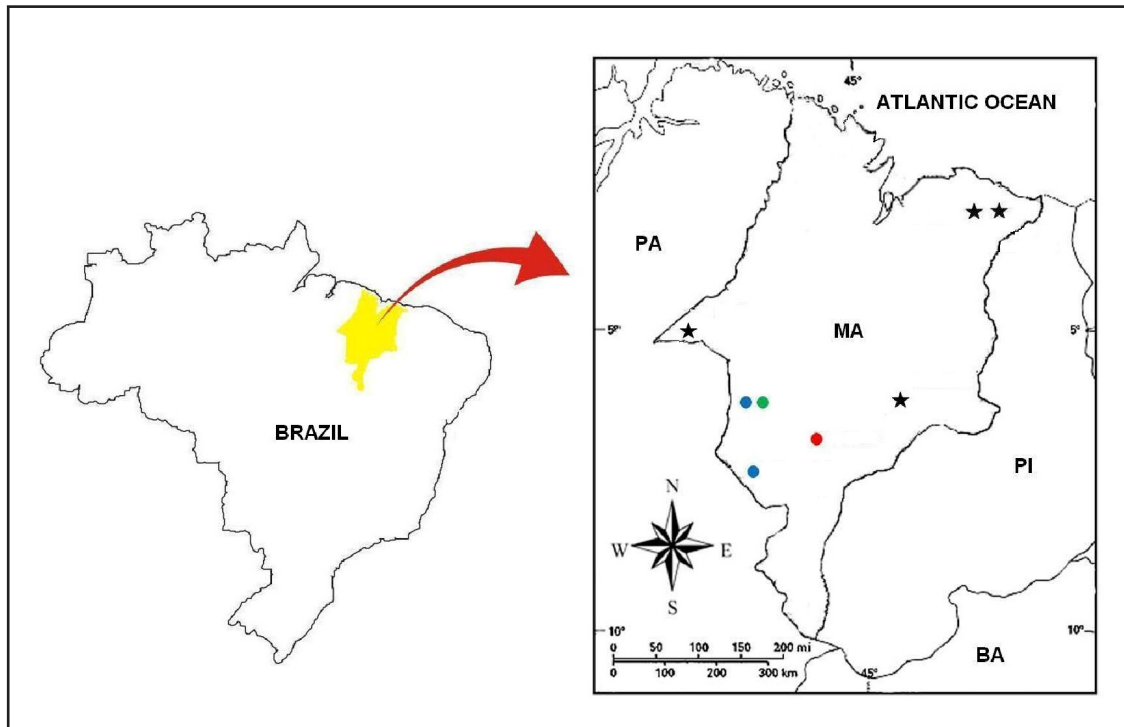


FIG. 2. Distribution map of *Hypsiboas punctatus* in Maranhão State (MA). Sampling sites are roughly represented by red dot (Barreto *et al.* 2007), blue dots (Pavan 2007), green dot (Brasileiro *et al.* 2008) and stars (present study).

*Mapa de distribución de Hypsiboas punctatus en el Estado de Maranhão (MA). Sitios de muestreo están aproximadamente representados por el punto rojo (Barreto *et al.* 2007), puntos azules (Pavan 2007), el punto verde (Brasileiro *et al.* 2008) y las estrellas (presente estudio).*