



New distributional records of the Toad-headed Pitviper *Bothrocophias hyoprora* (Amaral, 1935) in Brazil

¹Luciana Silva de Oliveira, ²Ivanei Souza Araújo, ³Ana Lúcia da Costa Prudente, ⁴Rafael de Fraga, ⁵Alexandre Pinheiro de Almeida, and ⁶Alexandre Cordeiro Ascenso

^{1,3,6}Setor de Herpetologia, Departamento de Zoologia, Museu Paraense Emílio Goeldi, Avenida Perimetral, 1901, 66077-830, Belém, Pará, BRAZIL
²Setor de Entomologia, Departamento de Zoologia, Museu Paraense Emílio Goeldi, Avenida Perimetral, 1901, 66077-830, Belém, Pará, BRAZIL
⁴Universidade Federal do Oeste do Pará, Instituto de Ciências e Tecnologia das Águas, Av. Mendonça Furtado 2946, 68040-050, Santarém, Pará, BRAZIL
⁵Universidade Federal do Amazonas, Programa de Pós-Graduação em Zoologia, Av. General Rodrigo Octávio Jordão Ramos 3000, 69077-000, Manaus, Amazonas, BRAZIL

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The genus *Bothrocophias* Gutberlet and Campbell 2001 is a monophyletic entity composed of six species: *Bothrocophias andianus* (Amaral, 1923), *B. campbelli* (Freire-Lascano, 1991), *B. colombianus* (Rendahl and Vestergren, 1941), *B. hyoprora* (Amaral, 1935), *B. microphthalmus* (Cope, 1875), and *B. myersi* Gutberlet and Campbell, 2001 (Carrasco et al. 2012). It is widely distributed in tropical lowland forests of the Amazon basin of Colombia, Ecuador, Peru, Bolivia, and Brazil (Campbell and Lamar 2004; Fenwick et al. 2009; Carrasco et al. 2012; Wallach et al. 2014).

Among the *Bothrocophias* species, the Toad-head Pitviper (*B. hyoprora*) exhibits the widest distribution, occurring in lowland Amazonian forests of Colombia, Ecuador, Peru, Bolivia, and Brazil (Campbell and Lamar 2004; Cisneros-Heredia et al. 2006). In the Brazilian Amazon, the species is broadly distributed from the western Amazonas to the eastern middle Tapajós River, also occurring at the states of Acre, Rondônia, and Mato Grosso (Bernarde et al. 2011; Mendes-Pinto and Souza 2011; Carvalho et al. 2013). According to the available literature, *Bothrocophias hyoprora* is often found on the leaf litter near water bodies (Campbell and Lamar 2004), and feeds upon centipedes, anurans, lizards, and rodents (Martins and Oliveira 1998; Martins et al. 2002).

We herein report two vouchered specimens and an additional non-collected specimen of *B. hyoprora* from southwestern Pará and southern Amazonas, which is located in northern Brazil (Fig. 1). An adult

male of *B. hyoprora* (MPEG 24662, snout-vent length 366 mm, tail length 82 mm) was collected on 2 April 2011 by L. Drummond, H. Costa, and J. Tonini, in an ombrophilous dense forest located in Jardim do Ouro, eastern part of the Itaituba municipality, state of Pará, Brazil (6.26190°S, 55.90621°W; WGS 84; 237 m). The specimen is deposited in the herpetological collection “Oswaldo Rodrigues da Cunha,” Museu Paraense Emílio Goeldi, Belém, Brazil – MPEG. An adult male (INPA-H 33106, snout-vent length 347 mm, tail length 63 mm; Fig. 2) was collected on 24 April 2013 by Alexandre Almeida and F. Assunção, in a dense forest in the Floresta Estadual Canutama, a Conservation Unit on Canutama municipality, southern Amazonas, on the right bank of the Paissé River (6.49514°S, 64.56611°W; WGS 84; 75 m). This specimen is deposited in the herpetological section of the Zoological Collections of the Instituto Nacional de Pesquisas da Amazônia, Manaus, Brazil – INPA-H. An adult *B. hyoprora* (UF 157255; Fig. 3) was found on 18 April 2016 by Ivanei Araújo and Edson Reis in a preserved forest transect in the of the Chapleau mining company, concession (7.550479°S, 55.034344; WGS 84; 238 m), Altamira municipality, Pará state, Brazil. This record corresponds to a photographic voucher specimen deposited at the Florida Museum of Natural History–UF.

The register represented by the MPEG specimen extends the known distribution of *Bothrocophias hyoprora* ca. 190 km south from the last known record, which was at FLONA Trairão, Pará. The University of

Correspondence. ¹lucorallus09@gmail.com, ²araujo_is@yahoo.com.br, ³prudente@museu-goeldi.br, ⁴rdefraga@gmail.com, ⁵alexandre.dealmeida@hotmail.com, ⁶emurinus@hotmail.com (corresponding author)

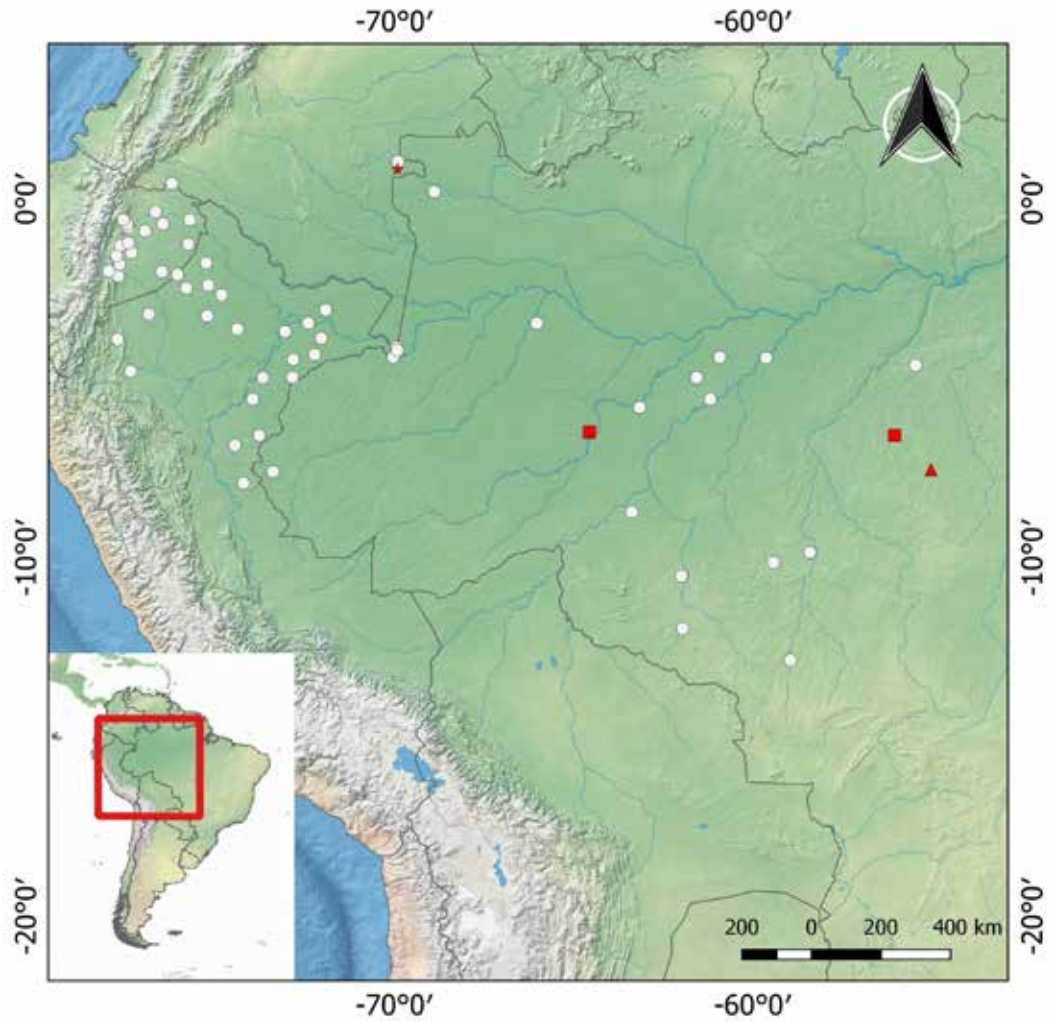


Fig. 1. Known geographic range of *Bothrocophias hyoprora* in South America: white circles = literature data, red star = type locality, red squares = records from Jardim do Ouro, Itaituba, Pará, Brazil (MPEG 24662) and from Floresta Estadual Canutama, Canutama, Amazonas, Brazil (INPA-H 33106), red triangle = record from Chapleau mining company concession, Altamira, Pará, Brazil (UF 157255).



Fig. 2. Adult *Bothrocophias hyoprora* (INPA-H 33106) from Canutama, Amazonas, Brazil. Photography by Vinícius T. de Carvalho.



Fig. 3. Adult *Bothrocophias hyoprora* (UF 157255) from Altamira, Pará, Brazil. Photography by Ivanei S. Araujo.

Florida photographed specimen expands the distribution ca. 270 km southeast (Mendes-Pinto and Souza 2011). Both records fill a distributional gap in the Xingu-Tapajos interfluvium, located in southeast Pará. The INPA specimen fills an important gap on southern Amazonas, at the Juruá-Purus interfluvium, one of the most unexplored regions of Amazonia concerning the herpetofauna. These records provide new distribution data about this rare species in the Brazilian Amazon. The UF record is the first for the municipality of Altamira. Despite being considered abundant at the Andean slopes of Colombia, Peru, and Ecuador, *Bothrocophias hyoprora* records are very uncommon in Brazil, with few specimens being registered for central and western Amazon. However, the lack of registers is most likely due to scarcity of field work rather than low demographic of the species in the region (Carvalho et al. 2013).

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Luciana Silva de Oliveira received her Master's degree in zoology in 2014 from the Federal University of Pará and the Emílio Goeldi Museum of Pará (MPEG), and now works with inventories of Amazonian herpetofauna. Her research interests include monitoring wildlife in the Amazon, systematics and genetics of amphibians and reptiles, and techniques and procedures of natural history collections.



Ivanei Souza Araújo received his Master's degree in 2006 from the Federal University of Pará and the Emílio Goeldi Museum of Pará (MPEG), and works as a biodiversity and conservation consultant of Amazonian insects and mammals. His current research is focused on monitoring wildlife for biological conservation, as well as army ants, dung beetles, and butterflies, as a research associate of the MPEG.



Ana Lúcia da Costa Prudente is a titular researcher at the Emílio Goeldi Museum of Pará, Brazil (MPEG), and is a teacher and advisor in the postgraduation programs of zoology (in a covenant with the Federal University of Pará) and of Biodiversity and Evolution (from Emílio Goeldi Museum of Pará). She is current chief of the zoology coordination from MPEG, current vice coordinator of research and postgraduation at the MPEG, and curator of the herpetological collection from MPEG since 2000. Her current research focuses on the systematics, taxonomy, and biogeography (mainly with snakes) of animals, Amazon basin, and morphology of reptiles.



Rafael de Fraga is a professor at the Federal University of the West of Pará (UFOPA - ICTA). He received a Master's degree in ecology in 2009, and a doctoral degree in 2016 in ecology from the National Institute of Amazonian Researches (INPA). His current research focuses on ecology with an emphasis in herpetology, acting mainly on metrics estimates of diversity (e.g., taxonomic, functional, and phylogenetic), niche theory, and theory of ecological gradients.



Alexandre Pinheiro de Almeida received his Master's degree in 2011 from the Federal University of Amazonas, and now works with inventories of Amazon Herpetofauna. His research interests include monitoring wildlife in the Amazon, ecology and taxonomic aspects of amphibians and reptiles, and wildlife management.



Alexandre Cordeiro Ascenso is a doctoral research fellow at the Biodiversity and Evolution Program at the Emílio Goeldi Museum of Pará, Brazil (MPEG). His current research focuses on the systematics and taxonomy of a species complex of neotropical snakes (*Erythrolamprus reginae*), with strong interests in the study of natural history, genetics, biogeography, and conservation of amphibians and reptiles.