



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

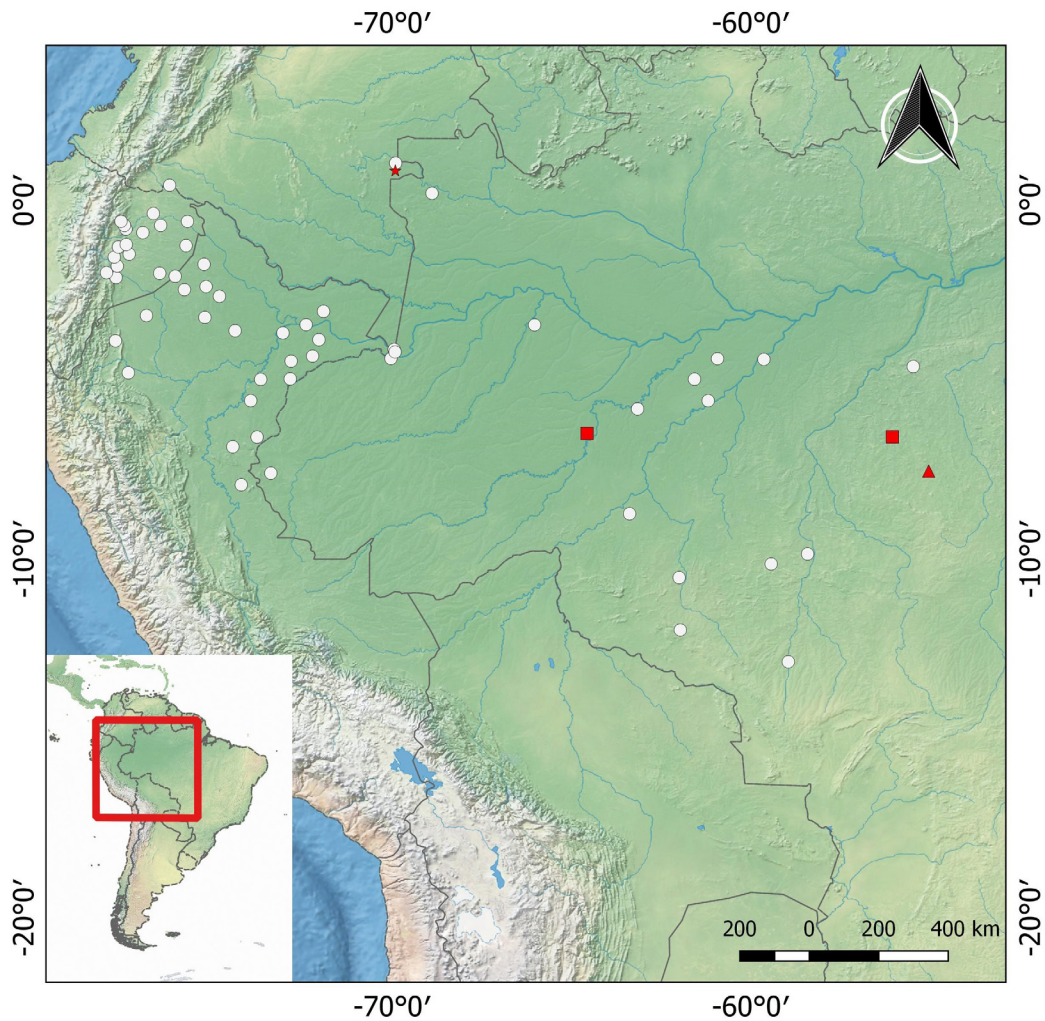
Among the *Bothrocophias* species, the Toad-head Pitviper (*B. hyoprora*) exhibits the widest distribution, occurring in lowland Amazonian forests of Colombia, Ecuador, Peru, Bolivia, and Brazil (Campbell and Lamar 2004; Cisneros-Heredia et al. 2006). In the Brazilian Amazon, the species is broadly distributed 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

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**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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