First confirmed record of *Rhinobothryum lentiginosum* (Serpentes: Colubridae) in the state of Tocantins, Brazil

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The Amazon banded snake, *Rhinobothryum lentiginosum* (Scopoli, 1785), is characterized by its distinctive color pattern: ground colour of dorsum and tail black with red bands 8-12 scales in width, containing black specks; each red band bordered by white bands 4-6 scales in width. Venter grey where contacting black dorsum, white where contacting red and white dorsal bands (Fig. 1). A white nuchal collar; head scales ranging from reddish-orange to white, with black spots of varying sizes in their centers, sometimes covering almost the entire scale (Duellman, 2005; Powell et al., 2021). This species is predominantly associated with the lowland Amazon rainforest, with records in Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname and Venezuela (Arruda et al., 2015; Nogueira et al., 2019). Despite this wide distribution and its nocturnal and diurnal habits (Martins & Oliveira, 1998; Doan & Arriaga, 2000; Vitt et al., 2000; Duellman, 2005; Ribeiro Duarte, 2010; Venegas & Couceiro, 2017; García-Ayachi et al., 2020; Barbosa et al., 2021), the species is considered rare and infrequently observed, with few specimens deposited in institutional collections (Cunha & Nascimento, 1978; García-Ayachi et al., 2020; Barbosa et al., 2021).

In Brazil, the species has been recorded in the states of Roraima, Amapá, Acre, Rondônia, Amazonas, Pará, Mato Grosso, and Maranhão (Guedes et al., 2023). The species was also listed for the state of Tocantins (Silva et al., 2019). However, Costa et al. (2022) and Guedes et al. (2023), consider this record doubtful, as there is no voucher specimen, and the image of *R. lentiginosum* in Silva et al, (2019) is of a specimen from Acre. Therefore, Tocantins was the only Brazilian state within the Amazon region where the species had not yet been documented. Herein we update the species' distribution map by presenting the first confirmed record of *Rhinobothryum lentiginosum* for Tocantins.

On November 19, 2017, at approximately 8:00 pm, during fieldwork in a pasture area near a gallery forest at Fazenda Terra Santa (7°11′0.56″ S, 48°50′34.47″ W; 199 m above sea level), in the municipality of Santa Fé do Araguaia, state of Tocantins, an individual of *R. lentiginosum* was found in a tree approximately 180 cm above the ground. The specimen was photographed (Fig. 1) and later released. The photographs of the specimen have been deposited in the media collection of the Coleção Zoológica da Universidade Federal do Mato Grosso do Sul, catalogue number ZUFMS-MID00014 and ZUFMS-MID00015.

Although classified as a terrestrial species, this record confirms arboreal habits of the species as suggested by Oliveira & Martins (1998), and observed by other authors (e.g., Venegas & Couceiro, 2017; García-Ayachi et al., 2020; Barbosa et al., 2021). Additionally, it corroborates the occurrence of the species in anthropized areas (Bernarde & Abe, 2006; Miranda et al., 2009). This record also validates the occurrence of the species in Tocantins, expanding its range ca. 170 km southeast from the nearest record (Nogueira et al., 2019) (Fig. 2). The locality where the specimen was found lies within the boundaries of the Amazon Forest, which reinforces the species' strong association with, and possible endemism to, this ecoregion.

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REFERENCES

Arruda L., Carvalho M., Kawashita-Ribeiro R. 2015. New records of the Amazon banded snake *Rhinobothryum lentiginosum* (Serpentes: Colubridae) from Mato Grosso state, Brazil, with natural history notes. *Salamandra* 51: 199–205.

Barbosa R.A.P., Reis J.F.T., Dutra R.S.S., Nascimento W.S.P., Silva G.S., Pedersoli M.A., Albuquerque S., Prestes A.L.C. 2021. Predation by the Amazon Banded Snake, *Rhinobothryum lentiginosum* (Squamata: Colubridae) on the Striped Forest Whiptail, *Kentropyx calcarata* (Squamata: Teiidae), in the southwestern Brazilian Amazon. *Herpetology Notes* 14: 1429–1432.

Bernarde P.S., Abe A.S. 2006. A snake community at Espigão do Oeste, Rondônia, southwestern Amazon, Brazil. *South American Journal of Herpetology* 1: 102–113. doi: *10.2994/1808-9798(2006)1[102:ASCAED]2.0.CO;2*.

Costa H.C., Guedes T.B., Bérnils R.S. 2022. Lista de répteis do Brasil: padrões e tendências. *Herpetologia Brasileira* 10(3): 110–279. doi: *10.5281/zenodo.5838950*.

Cunha O.R., Nascimento F.P. 1978. Ofídios da Amazónia. X-As cobras da região leste do Pará. *Publicações Avulsas do Museu Paraense Emílio Goeldi* 31: 1–217.

Doan T.M., Arriaga W.A. 2000. New herpetological records for the Tambopata Province, Department of Madre de Dios, Peru. *Herpetological Review* 31: 188–189.

Duellman W.E. 2005. Cusco Amazónico: the lives of amphibians and reptiles in a Amazonian rainforest. Comstock Publishing Associates, Ithaca.

García-Ayachi L.A., Wittwer M., Kirkby C. 2020. *Anolis tandai*, a new dietary record for the Amazon ringed snake, *Rhinobothryum lentiginosum* (Scopoli, 1785) (Squamata: Colubridae). *Herpetology Notes* 13: 981–987.

Guedes T.B., Entiauspe-Neto O.M., Costa H.C. 2023. Lista de répteis do Brasil: atualização de 2022. *Herpetologia Brasileira* 12: 56–161. doi: *10.5281/zenodo.7829013*.

Martins M., Oliveira M.E. 1998. Natural history of snakes in forests of the Manaus region, central Amazonia, Brazil. *Herpetological Natural History* 6: 78–150.

Miranda D.B., Albuquerque S., Venâncio N.M. 2009. Reptilia, Squamata, Colubridae, *Rhinobothryum lentiginosum* (Scopoli 1785): first record from state of Acre, Brazil. *Check list* 5: 917-918. doi: *10.15560/5.4.917*.

Nogueira C.C., Argôlo A.J.S., Arzamendia V., Azevedo J.A., Barbo F.E., Bérnils

R.S ... Martins M. 2019. Atlas of brazilian snakes: verified point-locality maps to mitigate the Wallacean shortfall in a megadiverse snake fauna. *South American Journal of Herpetology* 14:1-274. doi: *10.2994/SAJH-D-19-00120.1*.

Oliveira M.E., Martins M. 1998. *Rhinobothryum lentiginosum* (NCN). Diet. *Herpetological Review* 29: 105.

Powell R.L., Eversole C.B., Lizarro D., Crocker A.V., Vaca G.C., Surovic E. 2021. *Rhinobothryum lentiginosum* (Scopoli, 1788) (Serpentes, Colubridae): additional country record and first list of voucher specimens for Bolivia. *Check List* 17: 333–338. doi: *10.15560/17.2.333*.

Ribeiro Duarte M. 2010. Natural history notes. *Rhinobothryum lentiginosum* (Ringed Tree Snake). Diet and maximum size. *Herpetological Review* 41: 97–98.

Scopoli G.A. 1785. Deliciae florae et faunae insubricae. Pars III. Typographia Reg. & Imp. Monasterii S. Salvatoris, Ticini.

Silva, R.C.C., Freitas M.A., Sant'Anna S.S., Seibert C.S. 2019. Serpentes no Tocantins: guia ilustrado. Ekos Editora, São Paulo.

Venegas P.J., Couceiro D. 2017. Natural history notes. *Rhinobothryum lentiginosum* (Amazon Banded Snake). Reproduction. *Herpetological Review* 48: 681–682.

Vitt L.J., Souza R.A., Sartorius S.S., Avila-Pires T.C., Espósito M.C. 2000. Comparative ecology of sympatric *Gonatodes* (Squamata: Gekkonidae) in the western Amazon of Brazil. *Copeia* 2000: 83–95.

Figura 1. *S*pecimen of *Rhinobothryum lentiginosum* from Santa Fé do Araguaia, state of Tocantins.

Photo by Dantas, S. P.

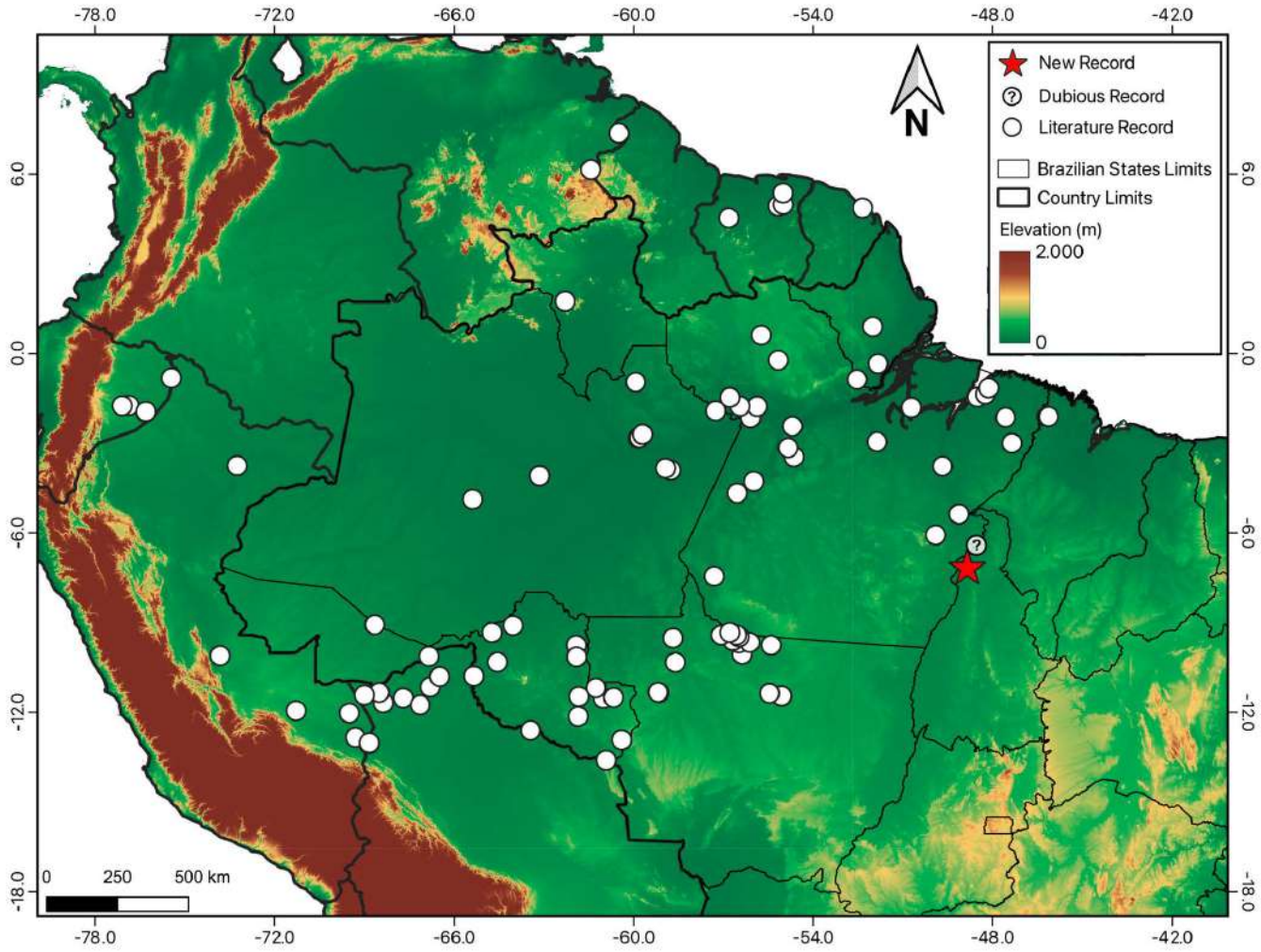

Figura 2. Distribution map of localities found for *Rhinobothryum lentiginosum* based on the present study and literature records. The white points indicate previous records (Nogueira et al., 2019; García-Ayachi et al., 2020; Barbosa et al., 2021; Powell et al., 2021). The white point with a question mark indicates the doubtful locality in the municipality of Xambioá, according to Costa et al. (2022). The red star represents the first confirmed record for the state of Tocantins, in the municipality of Santa Fé do Araguaia.