

# First record of *Osteocephalus castaneicola* Moravec, Aparicio, Guerrero-Reinhard, Calderón, Jungfer & Gvoždík, 2009 (Anura: Hylidae) for Acre, Brazil

**Danyella Paiva da Silva<sup>1\*</sup>, Werther Pereira Ramalho<sup>2</sup>, Lucicléia Railene Assis de Matos<sup>3</sup>, Tiago Lucena da Silva<sup>4</sup> and Douglas Coutinho Machado<sup>4</sup>**

1 Post Graduation Program in Ecology and Natural Resources Management, Acre Federal University, Rio Branco, Brazil

2 Boitató Institute of Ethnobiology and Fauna Conservation, Goiânia, Brazil

3 Acre Federal University, Laboratory of Herpetology, Rio Branco, Brazil

4 Acre Federal University, Laboratory of Animal Biology, Cruzeiro do Sul, Brazil

\* Corresponding author. E-mail: [dany.paiva@gmail.com](mailto:dany.paiva@gmail.com)

**Abstract:** The genus *Osteocephalus* (Fitzinger, 1843) is represented by 23 species, of which nine occur in Brazil. Here we extend the distribution of *Osteocephalus castaneicola* Moravec, Aparicio, Guerrero-Reinhard, Calderón, Jungfer & Gvoždík, 2009 and provide the first record for Acre state. We include an updated distribution map for the species.

**Key words:** Chandless; Amphibia; Amazonia; Acre, Brazil

The genus *Osteocephalus* (Fitzinger, 1843), is represented by 23 species (Frost, 2015). Among these, nine occur in Brazil (Segalla et al. 2014): *O. buckleyi* (Boulenger, 1882), *O. cabrerai* (Cochran & Goin, 1970), *O. helenae* (Ruthven, 1919), *O. lepriurii* (Duméril & Bibron, 1841), *O. oophagus* Jungfer & Schiesari, 1995, *O. planiceps* Cope, 1874, *O. subtilis* Martins & Cardoso, 1987, *O. taurinus* Steindachner, 1862 and *O. vilarsi* (Melin, 1941).

Within the *Osteocephalus planiceps* Moravec, Aparicio, Guerrero-Reinhard, Calderón, Jungfer & Gvoždík, 2009 clade, *O. castaneicola* is distinguished by vocal slit absence, no sexual dimorphism in dorsal tubercles, single distal subarticular tubercle on the fourth finger, absence of dark spots on the flank and bicoloured iris with horizontal dark line, with golden color above and bronze below, both parts with fine dark reticulate to radiate lines (Moravec et al. 2009). *Osteocephalus castaneicola* is characterized by medium size (SVL 47.8–51.3 mm for males and 47.7–63.3 mm for females), snout rounded in dorsal view, rounded and slightly inclined posteroventrally in lateral view, a narrow pale supralabial line expanding to a subocular spot, flanks

pale without markings, gular and ventral regions clear and without spots, narrow dark line along the mandible (Figure 1).

*Osteocephalus castaneicola* was first reported from San Antonio de Filadelfia, Manuripi province, Departamento de Pando, Bolívia (Moravec et al. 2009) and in El Tigre, Departamento de La Paz (Aguilar-Kirigin 2012). In Peru it has been recorded in Manu National Park, Estado Madre de Dios (Von May et al. 2010). In Brazil, the first record was made in the Extractivist Reserve Rio Gregório, Amazonas State (Pantoja and Fraga 2012) and later in the Ecological Station of Cuniã and National



**Figure 1.** Narrow dark line along the lower mandible of *Osteocephalus castaneicola* LBA-H 001 collected in the Estadual Park Chandless, Manoel Urbano, Acre, Brazil.



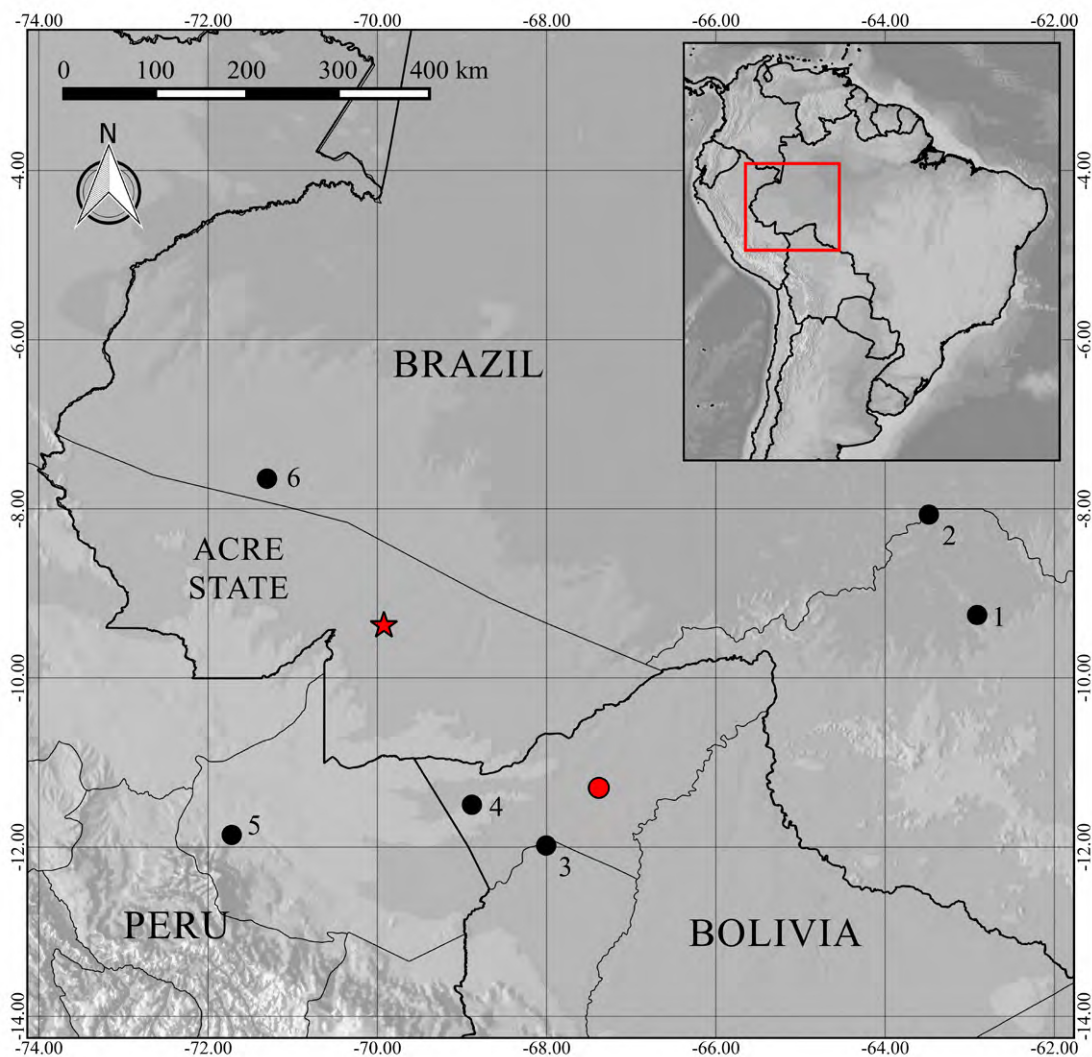
**Figure 2.** *Osteocephalus castaneicola* LBA-H 001 collected in the Stadal Park Chandless, Manoel Urbano, Acre, Brazil.

Forest of Jamari, Rondonia (Meneghelli and Entiauspé-Neto 2014).

Three adult specimens of *Osteocephalus castaneicola* (Figure 2) were collected in Stadal Park Chandless, Manoel Urbano, Acre State ( $09^{\circ}22'49.35''\text{S}$ ,  $069^{\circ}55'22.8''\text{W}$ ), during field activities conducted on the night of 11 September 2014 during the dry season. The animals were active under shrubs and herbaceous vegetation, in open dry forest dominated by palm trees, in the research module of the Programa de Pesquisa em Biodiversidade program.

Specimens were collected under the System for Biodiversity (SISBIO) licence 44667-1 and deposited in the herpetological collection of the Animal Biology Laboratory, Acre Federal University, Cruzeiro do Sul (LBA-H 001, 002, 003). The specimens conform to the description of *O. castaneicola* summarized above. The three specimens are all males, SVL 51, 54, 49 mm.

This report extends the geographic distribution of *O. castaneicola* 250 km southeast of the nearest know



**Figure 3.** Geographical distribution of *Osteocephalus castaneicola*. The red circle represents the type-locality, San Antonio de Filadelfia, Pando Department, Bolivia. Black circles: 1, National Forest of Jamari, Itapuã do Oeste, Rondônia, Brazil; 2, ESEC Cuniã, Porto Velho, Rondônia, Brazil; 3, El Tigre, Departamento de La Paz, Bolivia; 4, San Antonio del Matti, Pando Department, Bolivia; 5, Manu National Park, Madre de Dios, Peru; 6, Extractivist Reserve Gregório, Amazonas, Brazil. The red star represents the record from Stadal Park Chandless, Manoel Urbano, Acre, Brazil.

occurrence in Amazonas, Brazil, 380 km northeast of the record in Peru, and 270 km northwest of the locality in Pando, Bolivia (Figure 3). This report confirms the suggestion by Moravec et al. (2009) of the possible occurrence of *O. castaneicola* in Acre, Brazil.

## ACKNOWLEDGEMENTS

We thank the National Council for Scientific and Technological Development (Capes) for the master degree scholarship provided to Danyella Paiva da Silva, the Amazon Region Protected Areas Program (ARPA) for providing financial research support, and the Authorization and Information System for Biodiversity (SISBIO) for the collecting license (44667-1).

## LITERATURE CITED

- Aguilar-Kirigin, A.J. 2012. *Osteocephalus castaneicola* Moravec, Aparicio, Guerrero-Reinhard, Calderón, Jungfer and Gvoždík, 2009 (Anura: Hylidae). Extensión de su distribución geográfica y nuevo registro para el departamento de La Paz, Bolivia. Cuadernos de Herpetología 26(2): 107–109. <http://ref.scielo.org/ph9tjq>
- Frost, D.R. 2015. Amphibian species of the world: an online reference. Version 6.0 (11 June 2015). New York: American Museum of Natural History. Accessed at <http://research.amnh.org/herpetology/amphibia/index.html>, 11 June 2015.
- Meneghelli, D. and O.M. Entiauspe-Neto. 2014. New records from Brazil and first record from the state of Rondônia of *Osteocephalus castaneicola* Moravec, Aparicio, Guerrero-Reinhard, Calderón, Jungfer & Gvoždík, 2009 (Anura: Hylidae) with an update on its geographical distribution. Check List 10(4): 957–959. doi: [10.15560/10.4.957](https://doi.org/10.15560/10.4.957)
- Moravec, J., J. Aparicio, M. Guerrero-Reinhard, G. Calderón, K-H. Jungfer and V. Gvoždík. 2009. A new species of *Osteocephalus* (Anura: Hylidae) from Amazonian Bolivia: first evidence of tree frog breeding in fruit capsules of the Brazil nut tree. Zootaxa 2215: 37–54. <http://www.mapress.com/zootaxa/2009/f/z02215p054f.pdf>
- Pantoja, D.L. and R. de Fraga. 2012. Herpetofauna of the Reserva Extrativista do Rio Gregório, Juruá Basin, southwest Amazonia, Brazil. Check List 8(3): 360–374. <http://www.checklist.org.br/getpdf?SLO91-11>
- Segalla, M.V., U. Caramaschi., C.A.G. Cruz., T. Grant., C.F.B. Haddad., C.F.B. Haddad., P. Langone and P.C.A. Garcia. List of species. Sociedade Brasileira de Herpetologia. Accessed at <http://www.sbherpetologia.org.br/>, 10 June 2015.
- Von May, R., J.M. Jacobs, R. Santa-Cruz, J. Valdivia, J.M. Huamán and M.A. Donnelly. 2010. Amphibian community structure as a function of forest type in Amazonian Peru. Journal of Tropical Ecology 26(5): 509–519. doi: [10.1017/S0266467410000301](https://doi.org/10.1017/S0266467410000301)

**Author contributions:** DPS, LRAM and DCM collected the data, WPR made the map and DPS, WPR, LRAM, TLS and DCM wrote the text.

**Received:** 16 June 2015

**Accepted:** 22 December 2015

**Academic editor:** Marcelo N. de C. Kokubum