Check List the journal of biodiversity data

NOTES ON GEOGRAPHIC DISTRIBUTION

Check List 11(4): 1725, 31 August 2015 doi: http://dx.doi.org/10.15560/11.4.1725
ISSN 1809-127X

Sphaenorhynchus carneus (Cope, 1868) (Amphibia: Anura: Hylidae): distribution extension, geographic distribution map and new state record

Juliana Gonçalves Corrêa, **Jackson Cleiton Sousa**, **Pedro Ferreira França** and **Carlos Eduardo Costa-Campos***

Universidade Federal do Amapá, Departamento de Ciências Biológicas e da Saúde, Laboratório de Herpetologia, Rod. Juscelino Kubitschek, km 02, Jardim Marco Zero, CEP 68.902-280, Macapá, AP, Brazil
* Corresponding author. E-mail: eduardocampos@unifap.br

Abstract: The genus *Sphaenorhynchus* Tschudi, 1838, is currently composed of 14 species, three of which are associated to the Amazon basin. Herein, we report the first record of *Sphaenorhynchus carneus* for the state of Amapá, district of Ariri, municipality of Macapá, Amapá state. This record represents an increase of its known geographic distribution of approximately 1,085 km northwest from its nearest locality, state of Amazonas.

Key words: Eastern Amazon, Amapá, range extension

The genus *Sphaenorhynchus* Tschudi, 1838, includes small greenish treefrogs that inhabit and reproduce on temporary, permanent, or semi-permanent ponds in open areas (Cruz and Peixoto 1980). *Sphaenorhynchus* is characterized by the snout sharply inclined posteroventrally in lateral view; dorsum, limbs and bones green in juveniles and adults; dorsal skin texture smooth, and that on the belly granular; tympanum indistinct; pupil horizontally elliptical and webbed hands and feet. Also, males have a huge, median, subgular vocal sac and nuptial pads on thumbs (Rodriguez and Duelman 1994). The tadpoles have ovoid bodies, dorsal blotches and xiphicercal tails with moderately deep fins, not extending into body. The oral disc is small and subterminal, with a single row of submarginal papillae (Rodriguez and Duelman 1994; Suárez-Mayorga and Lynch 2001; Araujo-Vieira 2015).

Sphaenorhynchus is composed of fourteen species, distributed throughout the Amazon basin [*S. carneus* (Cope, 1868); *S. dorisae* (Goin, 1957) and *S. lacteus* (Daudin, 1800)], Brazilian Atlantic Forest [*S. botocudo* Caramaschi, Almeida and Gasparini, 2009; *S. bromelicola* Bokermann, 1966; *S. caramaschii* Toledo, Garcia, Lingnau and Haddad, 2007; *S. mirim* Caramaschi, Almeida and Gasparini, 2009; *S. orophilus* (Lutz and Lutz, 1938); *S. palustris* Bokermann, 1966; *S. pauloalvini* Bokermann, 1973; *S. planicola* (Lutz and Lutz, 1938); *S. prasinus* Bokermann, 1973 and *S. surdus* (Cochran, 1953)], and one with unknown distribution [*S. platycephalus* (Werner, 1894)] (Harding 1991; Frost 2015).

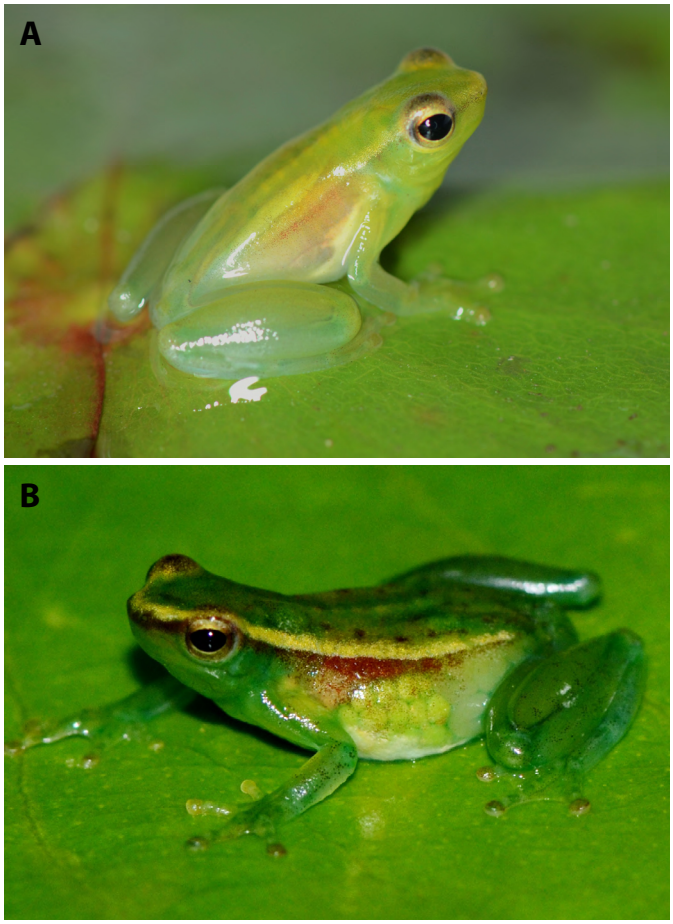

Figure 1. An adult male (**A**) and female (**B**) of *Sphaenorhynchus carneus* (CECCAMPOS 01208, 01255). Collected by J.C Sousa on 14 March 2015. Photo courtesy of C.E. Costa-Campos.

Figure 2. Calling and breending habitats of *Sphaenorhyncus carneus*. district of Ariri, municipality of Macapá, Amapá state, Brazil. Photo courtesy of P.F. França and C.E. Costa-Campos.

The Neotropical hylid frog *Sphaenorhyncus carneus* (Cope, 1868) is a small species characterized by the following traits: 1) snout-vent length varying from 15 to 18 mm in males and 22 to 23 mm in females; 2) pale green dorsal coloration with a golden stripe, delimited above and below by brown-reddish lines from the posterior corner of eye to the groin; 3) absence of vomerine teeth; 4) ventral region and vocal sac whitish green; 5) armpit and groin pale blue; 6) iris silvery, with elliptical pupil, and 7) fingers and toes yellowish green (Rodriguez and Duellman 1997).

During fieldwork on 15 March 2015, at 17:50 h, district of Ariri, municipality of Macapá, Brazil (0.299306° N, 51.129889° W, datum: WGS84), two adult males (mean SVL = 15.5 mm ± 0.5 SD) and one adult female (SVL 15.9 mm) of *S. carneus* (Figure 1) were captured in flood plain at Rio Matapi. Adults males were observed at day and night when calling, perched on emergent vegetation, about 30–50 cm from the surface of water, on vertical of upon leafs, with their head upward or downward or in aquatic macrophytes (Figure 2).

Specimens were collected under permit number 37907-1 System Biodiversity Information and Authorization (SISBIO), Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio). Voucher specimens of *S. carneus* were euthanized with 5% lidocaine, fixed in a solution of 70% alcohol and 10% formalin. Specimens were deposited in the Herpetological Collection of Universidade Federal do Amapá (CECCAMPOS 01208, 01209, 01255). Identification of *S. carneus* was confirmed by Marinus Hoogmoed of Emilio Goeldi Paraense Museum.

Sphaenorhynchus carneus was reported to occur in the upper Amazon Basin of southern Colombia, Peru, Ecuador, and western Amazon in Brazil (Azevedo-Ramos et al. 2004), but the species is also presumably to be found in amazonian Bolivia (De La Riva et al. 2000). Besides the first state record, the occurrence of *S. carneus* in the municipality of Macapá represents an increase of its known geographic distribution of approximately 1,085 km northwest from its nearest locality, state of Amazonas (Figure 3).

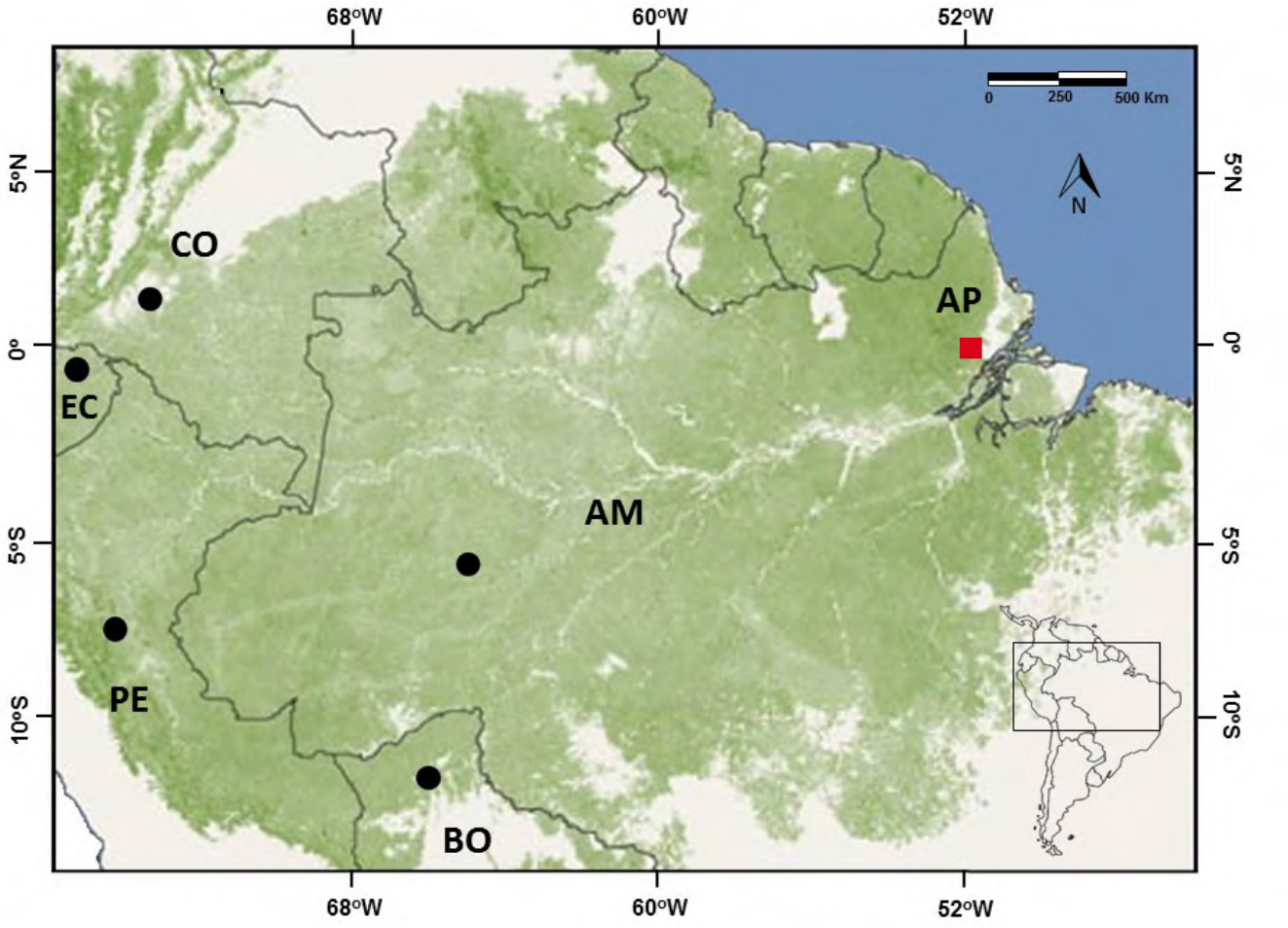

Figure 3. Geographic distribution of *Sphaenorhyncus carneus*. Black circles on map are based on literature records, red square constitute a new state record. AM = Amazonas; AP = Amapá; BO = Bolivia; CO = Colombia; EC = Ecuador; PE = Peru.

ACKNOWLEDGEMENTS

We grateful to Marinus S. Hoogmoed, from Emilio Goeldi Paraense Museum, for her help with the identification of the *Sphaenorhynchus carneus*. Juliana G. Corrêa was supported by a scientific initiation fellowship from Fundação de Amparo à Pesquisa do Estado do Amapá (FAPEAP).

LITERATURE CITED

Araujo-Vieira, K., A. Tacioli, J. Faivovich, V.G.D. Orrico and T. Grant. 2015. The tadpole of *Sphaenorhynchus caramaschii*, with comments on larval morphology of *Sphaenorhynchus* (Anura: Hylidae). Zootaxa 3904, 270–282. doi: 10.11646/zootaxa.3904.2.6

Azevedo-Ramos, C., L.A. Coloma and R. Santiago 2004. *Sphaenorhynchus carneus*. The IUCN Red List of Threatened Species. Version 2014.3. Accessed at http://www.iucnredlist.org, 10 May 2015.

Cruz, C.A.G. and O.L. Peixoto. 1980. Notas sobre o girino de *Sphaenorhynchus orophilus* (Lutz & Lutz, 1938) (Amphibia, Anura, Hylidae). Revista Brasileira de Biologia 40: 383–386.

De La Riva, I., J. Köhler, S. Lötters and S. Reichle. 2000. Ten years of research on Bolivian amphibians: updated checklist, distribution, taxonomic problems, literature and iconography. Revista Española de Herpetología 14: 19–164. http://www.herpetologica.es/publicaciones/revista-espanola-de-herpetologia

Frost, D.R. 2015. Amphibian species of the world: an online reference. Version 6.0. American Museum of Natural History. Accessed at http://research.amnh.org/vz/herpetology/amphibia, 15 May 2015.

Harding, K.A. 1991. The taxonomic status of *Hylopsis platycephalus* Werner, 1894 and *Centronella* Noble, 1920 (Amphibia: Anura). Zoological Journal of the Linnean Society 103: 413–418. doi: 10.1111/j.1096-3642.1991.tb00911.x

Rodriguez, L.O. and W.E. Duellman. 1994. Guide to the Frogs of the Iquitos Region, Amazonian Peru. Kansas: Asociación de Ecologia y Conservación, Amazon Center for Environmental Education and Research, and Natural History Museum. 80 pp.

Suárez-Mayorga, A.M. and J.D. Lynch, 2001. Los renacuajos colombianos de *Sphaenorhynchus* (Hylidae): Descripciones, Anotaciones Sistemáticas y Ecológicas. Revista de la Academia Colombiana de Ciencias 25(96): 411–419.

Authors' contribution statement: JGC, JCS, PFF and CECC collected the data in the field; JGC and CECC conceived the study and wrote the manuscript. All authors read and approved the final manuscript.

Received: 17 May 2015
Accepted: 12 August 2015
Academic editor: Camila Both