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NOTES ON GEOGRAPHIC DISTRIBUTION

Amphibia, Hylidae, *Osteocephalus exophthalmus* Smith and Noonan, 2001: New country record and geographic distribution map, Venezuela

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ABSTRACT: *Osteocephalus exophthalmus* Smith and Noonan is reported from Sierra de Lema in Venezuela, 190 km NW of the type locality in Guyana. This is the first record of the species in Venezuela.

Venezuela has a rich anuran fauna, consisting of 338 described species to date (Barrio-Amorós 2009) and this number is frequently increased by the discovery of undescribed or unreported species. The hylid genus *Osteocephalus* contains 24 recognized species, of which four have been reported in Venezuela (Barrio-Amorós 2009). *Osteocephalus exophthalmus* Smith and Noonan, 2001 was described based on one individual from ca. 30 km SE Imbaimadai, Mazaruni-Potaro District, Guyana (Smith and Noonan 2001), and subsequently reported from Kaieteur National Park, Guyana by Kok and Kalamandeen (2008). The extension of the geographic range for this species into Venezuela presented herein is not surprising given that both localities are close to the southeastern border of Venezuela. The new specimens are deposited at the Museo de Historia Natural La Salle, Caracas, Venezuela (MHNLS).

Two specimens (MHNLS 19583 and MHNLS 19584; Figure 1) of *Osteocephalus exophthalmus* were collected by Ross Brown on 7th June, 2009 at 6 km south of the Guardia Nacional check point, troncal 10, Sierra de Lema, Estado Bolívar, Venezuela (05°54'04.5" N, 61°26'29.0" W, 1,431 m). This locality is 190 km NW from the nearest locality in Guyana, Imbaimadai (Figure 2; Smith and Noonan 2001). The only morphological difference found between these two specimens and the holotype is the iris pattern, since the Venezuelan specimens lack the black cross-like pattern. The iris patterns of the new Venezuelan specimens resemble more closely that found in the photographed specimen from Kaieteur (Kok and Kalamandeen 2008). The holotype and the two Venezuelan specimens were sequenced for two mitochondrial genes (12S and 16S tRNA, 2400bp) and compared, further confirming their identity. Pairwise distances between the holotype and the Venezuelan specimens were computed in the program MEGA (Kumar *et al.* 2008) and both pairs were found to have 0.004% sequence divergence (P. Salerno, unpublished).

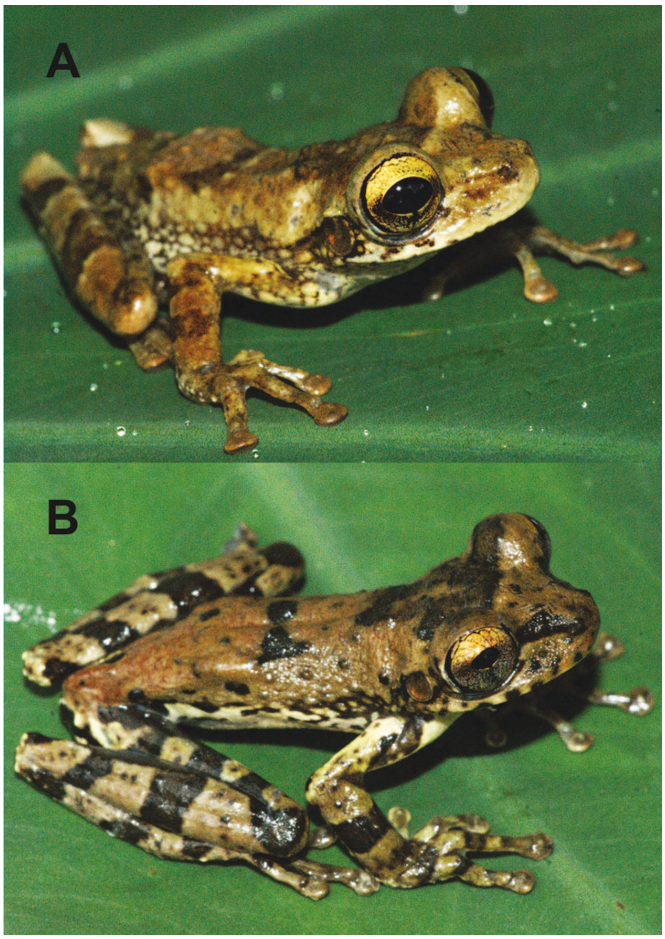

FIGURE 1. A) *Osteocephalus exophtalmus*, MHNLS 19583. B) MHNLS 19584. Both specimens collected at 6 km south of the Guardia Nacional check point, troncal 10, Sierra de Lema, Estado Bolívar, Venezuela (05°54'04.5" N, 61°26'29.0" W, 1,431 m).

Little is known about the natural history of this species; Smith and Noonan (2001) found the holotype at night on a small plant at approximately one meter above a pool of water. Kok and Kalamandeen (2008) state that it is

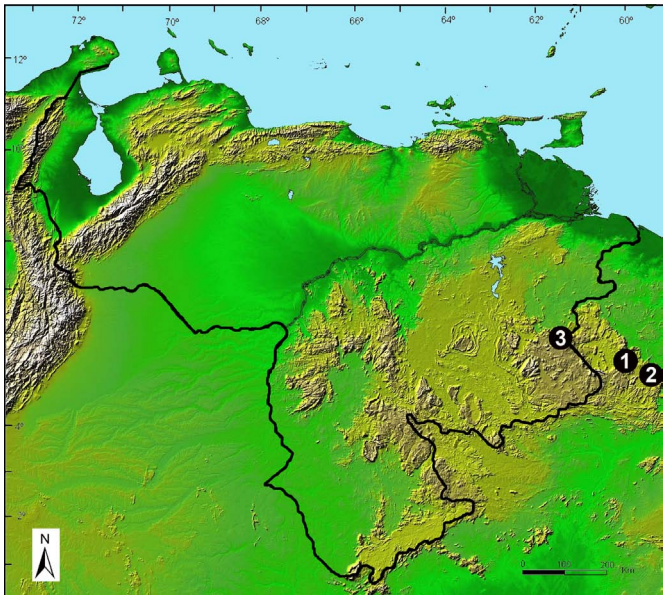

Figure 2. Known distribution of *Osteocephalus exophtalmus*. 1: type locality: 30 km SE Imbaimadai, Mazaruni-Potaro District, Guyana. 2: Kaieteur Falls, Guyana. 3: locality reported herein.

nocturnal and arboreal, and is found in primary forest not very far from water. Our specimens are adult males with keratinized nuptial pads with snout-vent lengths ranging from 27.8 to 32.8 mm. The specimens were collected at the edge of a forest pond, between 100 and 140 cm from the forest floor (neither was vocalizing). The altitudinal range of the species including the new data is 585-1431 m. This finding increases the Venezuelan batrachofauna to 339 species, with 81 hylids and five *Osteocephalus*. The area is very close to the nearby Guyana localities and many reptile and amphibian species known from that country could also be present in the general area of Sierra de Lema, Venezuela.

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Literature Cited

Barrio-Amorós, C.L. 2009. Riqueza y Endemismo; p 25–39. *In* C. Molina, J.C. Señaris, M. Lampo and A. Rial (ed.). *Anfibios de Venezuela; Estado del conocimiento y recomendaciones para su conservación*. Caracas: Ediciones Grupo TEI, 130 p.

Kok, P.J.R. and M. Kalamandeen. 2008. Introduction to the taxonomy of the amphibians of Kaieteur National Park, Guyana. *AbcTaxa* 5: 1-278.

Kumar S, J. Dudley, M. Nei and K. Tamura 2008. MEGA: A biologist-centric software for evolutionary analysis of DNA and protein sequences. B*riefings in Bioinformatics* 9: 299-306.

Smith, E.N. and B.P. Noonan. 2001. A new species of *Osteocephalus* (Anura: Hylidae) from Guyana. *Revista Biologia Tropical* 49: 347-357.

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