



A new species of *Osteocephalus* (Anura: Hylidae) from Amazonian Bolivia: first evidence of tree frog breeding in fruit capsules of the Brazil nut tree

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Abstract

A new species of *Osteocephalus* is described from lowland Amazonia of the Departamento Pando, northern Bolivia. The new species is most similar to *Osteocephalus planiceps* but differs by its smaller size (SVL 47.8–51.3 mm in males, 47.7–63.3 mm in females), absence of vocal slits, lack of sexual dimorphism in dorsal tubercles, single distal subarticular tubercle on the fourth finger, absence of dark spots on flanks, and by bicoloured iris with fine dark reticulate to radiate lines. The new species inhabits terra firme rainforest, breeds in water-filled fruit capsules of the Brazil nut tree and has oophagous tadpoles. Estimations of phylogenetic relationships within *Osteocephalus* based on mitochondrial DNA sequences show that the new species is closely related to *O. planiceps* and *O. deridens*.

Key words: Amphibia, Anura, Bolivia, Hylidae, Molecular Phylogeny, New Species, Oophagy, *Osteocephalus castaneicola*

Introduction

Hylid frogs of the genus *Osteocephalus* represent typical anuran forms adapted to arboreal mode of life in rainforests of South America. They are excellent climbers and many of them evolved different reproductive adaptations to decrease competition and predator pressure. In this respect, the most specialized species call from or breed in bromeliads or other phytotelmata and provide biparental care to oophagous tadpoles (Jungfer & Schiesari 1995, Jungfer & Weygoldt 1999, Jungfer *et al.* 2000, Jungfer & Lehr 2001, Jungfer & Hödl 2002). Currently, the genus *Osteocephalus* comprises 20 recognized species distributed in the Amazon basin, Guianas and upper drainages of Río Magdalena and Río Orinoco in Colombia and Venezuela (Frost 2009). Nevertheless, *Osteocephalus* alpha taxonomy is far from stable. Existence of several unnamed species is mentioned by Jungfer & Hödl (2002).

Currently, four species of *Osteocephalus* are known to be present in Bolivia: *O. buckleyi* Goin, *O. pearsoni* Gaige, *O. taurinus* Steindachner and an undescribed *Osteocephalus* sp. (A) (sensu Jungfer & Lehr 2001). The latter one was originally associated with the name *O. lepieurii* (Duméril & Bibron) and its formal description remains under process of publication since long ago (see De la Riva *et al.* 2000, Jungfer & Lehr 2001, Jungfer & Hödl 2002). Apart from this, recent field research in the Departamento Pando (the northernmost region of Bolivia, situated in the south-western Amazonian basin within the zone of tall