

## Evidence of full species status of the neotropical leaf-frog *Phyllomedusa burmeisteri bahiana* (A. Lutz, 1925) (Amphibia, Anura, Hylidae)

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### Abstract

The full species status of *Phyllomedusa burmeisteri bahiana* was investigated based on tadpoles and vocalizations characteristics. We found distinct characteristics between the tadpoles and advertisement and territorial calls of the former and that of *Phyllomedusa burmeisteri burmeisteri*. The main tadpole differences are related with a skin projection protecting the spiracle, origin of dorsal fin, morphology of ventral fin and distribution of papillae on the oral disc. The advertisement call and territorial call of *Phyllomedusa b. bahiana* were different from the *P. b. burmeisteri* calls especially for the structure and temporal characteristics (pulses/second principally). The color of newly metamorphosed *Phyllomedusa b. bahiana* suggests that the color pattern of the internal sides of the thigh of *P. b. burmeisteri* can be related to a neotenic pattern of development. We elevate *Phyllomedusa b. bahiana* to species level based on morphological and acoustical traits described here.

**Key words:** *Phyllomedusa bahiana*, *Phyllomedusa burmeisteri*, tadpole, advertisement call, territorial call, taxonomic status

### Introduction

Pombal Jr. and Haddad (1992) in a taxonomic revision of *Phyllomedusa burmeisteri* group, considered *Phyllomedusa bahiana* A. Lutz (Figure 1) as a subspecies of *Phyllomedusa burmeisteri* Boulenger. According to Frost (2004), the *Phyllomedusa burmeisteri* group (*sensu* Lutz 1950) includes five species (*P. burmeisteri bahiana* A. Lutz, 1925; *P. burmeisteri burmeisteri* Boulenger, 1881; *P. distincta* B. Lutz, 1950; *P. iheringii* Boulenger, 1885; and *P. tetraploidea* Pombal & Haddad, 1992), all of them distributed in eastern Brazil.