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A new diminutive species of *Allobates* Zimmermann and Zimmermann, 1988 (Anura, Aromobatidae) from the northwestern Rio Madeira—Rio Tapajós interfluve, Amazonas, Brazil

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Abstract

We describe *Allobates grillisimilis* from the northwestern region of the Rio Madeira—Rio Tapajós interfluve, state of Amazonas, Brazil. The new taxon is characterized by its small snout-to-vent length (12.8–16.0 mm, the smallest among known *Allobates*), by the color pattern of adults (surfaces of throat, chest and abdomen unpigmented), by morphological traits of larvae (a single row of very elongate papillae on posterior labium), and by its distinctive advertisement call, formed by trills of short pulses emitted in a variable number. We also provide notes on reproductive behavior of the new species.

Key words: Amazonia, *Allobates grillisimilis* sp. nov., Aromobatidae, Brazil, Dendrobatoidea

Introduction

Allobates Zimmermann and Zimmermann, 1988, includes 46 named species of small, diurnal, and generally cryptically colored Neotropical frogs, distributed from northern Central America to the southern reaches of the Amazon river basin in South America (Grant *et al.* 2006; Frost, 2011). Despite the incredible diversity observed in the genus, variation in color and morphological characters between most species is generally subtle, rendering it difficult to identify and diagnose the species based on external morphology.

While several of the original descriptions of *Allobates* relied solely on external morphological characters (*e.g.* Morales, 2000 “2002”¹; Barrio-Amorós *et al.* 2006; Grant *et al.* 2007), independent authors have called for the importance of a more integrative approach, including data on advertisement calls, reproductive behavior, larval morphology, and, more recently, DNA sequences in the identification of new taxa and in redescriptions of known forms (see examples in Caldwell & Lima 2003; Kok *et al.* 2006; Kok & Ernst 2007; Lima *et al.* 2007; Simões *et al.* 2010; see also Peloso 2010; Padial *et al.* 2010 for the discussion on the importance of integrative taxonomy). Such integrative works have led to the discovery of a plethora of new species and helped to redefine the species boundaries of taxonomically complex nominal taxa (Caldwell *et al.* 2002; Lima *et al.* 2009). Some species previously considered widespread in the Amazon basin proved to have relatively narrow distributions. Here, we describe a diminutive new species of litter frog assigned to genus *Allobates*, potentially restricted to the

1. Although the publication by V. Morales is listed as published in 2000, it was not actually printed until 2002.