



A new species of *Bolitoglossa* (Caudata, Plethodontidae) from the continental divide of western Panama

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Abstract

We describe the new salamander species *Bolitoglossa jugivagans* from the Atlantic slopes of the Fortuna depression in western Panama on the basis of morphological and molecular data. Based on mtDNA data, the new species seems to be closely related to *B. aureogularis* and *B. robinsoni*, with which it forms a subclade within the subgenus *Eladinea*.

Key words: *Bolitoglossa jugivagans* sp. nov., *B. robinsoni* clade, La Fortuna Forest Reserve, Protected Forest Palo Seco, DNA barcoding, *Eladinea*, Serranía de Talamanca

Resumen

Describimos la nueva especie de salamandra *Bolitoglossa jugivagans* de la vertiente atlántica del rebajamiento de Fortuna en Panamá occidental a base de datos morfológicos y moleculares. Basado en datos de ADN mitocondrial, *B. robinsoni* y *B. aureogularis* parecen ser las especies más cercanamente relacionadas con la nueva especie, las tres formando un subclado dentro del subgénero *Eladinea*.

Palabras claves: *Bolitoglossa jugivagans* sp. nov., clado *B. robinsoni*, Reserva Forestal La Fortuna, Bosque Protector Palo Seco, código de barras de ADN, *Eladinea*, Serranía de Talamanca

Introduction

The Cordillera Central of Costa Rica and Panama is a unique realm of salamander diversification on a worldwide scale. While there are only the three genera *Bolitoglossa*, *Nototriton*, and *Oedipina* of the sole family Plethodontidae in these mountains, the species diversity is extraordinary high (Bolaños and Wake 2009). Among Panamanian amphibians, *Bolitoglossa* comprises the second highest species count after the frog genus *Craugastor* (Jaramillo *et al.* 2010; Hertz *et al.* 2012). Above all it is, with currently 123 described species (AmphibiaWeb 2012), the largest genus in the order Caudata worldwide. On the basis of mtDNA data Parra-Olea *et al.* (2004) recognized several subgenera in *Bolitoglossa*, two of which are found in Panama. According to this classification, most Panamanian species belong to the subgenus *Eladinea*, with *B. lignicolor* (Peters) being the only representative of the subgenus *Bolitoglossa*. In 2009, we collected a single individual of *Bolitoglossa* (*Eladinea*) near the Fortuna depression, almost on the continental divide. This specimen is morphologically different from all described species, but since we had only a single specimen we decided to postpone the formal description until additional specimens were available. However, despite of intensive field work in that area in the subsequent year, no other specimen could be recovered. Recent fieldwork by Boza-Oviedo *et al.* (2012) in the little investigated high Talamancan Mountains in eastern Costa Rica near the border with Panama produced five new species of salamanders. Furthermore, they presented molecular data for several of poorly known salamanders from the central