



A new species of Glassfrog (Anura: Centrolenidae) from the lowlands of northwestern Ecuador, with comments on centrolenid osteology

JUAN M. GUAYASAMIN^{1,3} & LINDA TRUEB²

¹Museo de Zoología, Centro de Biodiversidad y Ambiente, Escuela de Biología, Pontificia Universidad Católica del Ecuador, Av. 12 de Octubre y Roca, Aptdo. 17-01-2184, Quito, Ecuador. E-mail: jmguasamin@gmail.com

²Natural History Museum & Biodiversity Research Center, Department of Ecology and Evolutionary Biology, The University of Kansas, Lawrence, Kansas 66045-7561, USA. E-mail: trueb@ku.edu

³Present address: Natural History Museum & Biodiversity Research Center, Department of Ecology and Evolutionary Biology, The University of Kansas, Lawrence, Kansas 66045-7561

Abstract

A new species of Glassfrog is described from the lowlands of northwestern Ecuador. The species is placed in the genus *Centrolene* and differs from the genera, *Cochranella* and *Hyalinobatrachium*, by having humeral spines in males. It differs from congeners by having a uniformly green dorsal coloration, conspicuous humeral spine, and white iris with clearly defined black reticulations. Detailed cranial and postcranial osteological descriptions are provided, and some of osteological features that seem to be peculiar to centrolenids are discussed. A new suite of traits to characterize Glassfrogs and simplify comparisons among species is proposed.

Key words: Centrolenidae, *Centrolene*, Ecuador, New species, Osteology

Resumen

Describimos una nueva especie de centrolénido de las tierras bajas del noroccidente del Ecuador. La especie nueva difiere de las especies en los géneros *Cochranella* y *Hyalinobatrachium* porque los machos tienen espinas humerales. Se diferencia de especies del género *Centrolene* por tener una coloración dorsal verde uniforme, espina humeral conspicua y un iris blanco brillante con evidente reticulación negra. Presentamos una descripción osteológica detallada de la especie nueva y discutimos algunas características osteológicas que parecen ser únicas a las ranas de cristal. Finalmente, proponemos un nuevo set de atributos para caracterizar especies de centrolénidos y así facilitar su comparación.

Palabras claves: Centrolenidae, *Centrolene*, Ecuador, especie nueva, osteología

Introduction

The anuran family Centrolenidae contains 139 recognized species (Amphibiaweb, 2006) distributed throughout the Neotropics. The monophyly of the family is supported by morphological (Taylor 1951, Hayes & Starrett 1980), behavioral (Ruíz-Carranza & Lynch 1991), and molecular characters (Darst & Cannatella 2004, Faivovich *et al.* 2005, Wiens *et al.* 2005, Frost *et al.* 2006, Grant *et al.* 2006). Recent publications (Cisneros-Heredia & McDiarmid 2006, Guayasamin *et al.* 2006) provide a review of the generic and infrageneric classification of Glassfrogs. A particularly useful morphological characteristic to distinguish these frogs from other anurans (except rhacophorids, hyperoliids, and some species of the genus *Litoria*; Tyler & Davies 1978, Liem