



## The smallest terrestrial vertebrate of Ecuador: A new frog of the genus *Pristimantis* (Amphibia: Strabomantidae) from the Cordillera del Cóndor

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### Abstract

We describe a new species of *Pristimantis* characterized by its diminutive size (maximum SVL in males 13.7 mm;  $n = 46$ ), dorsum smooth to slightly shagreen, finger and toe pads expanded, and red iris with thin black reticulation. The species is the smallest terrestrial vertebrate recorded in Ecuador, and the smallest species in the diverse genus *Pristimantis*. The osteological traits of the new species are similar to those found in other *Pristimantis* species, and no elements are lost because of miniaturization. The new species is only known from two close localities in Cordillera del Cóndor, Provincia Zamora Chinchipe, Ecuador.

**Keywords:** Cordillera del Cóndor, *Pristimantis*, osteology, miniaturization, Strabomantidae

### Resumen

Se describe una nueva especie de *Pristimantis* caracterizada por su diminuto tamaño (longitud rostro-cloacal máxima en machos 13.7 mm;  $n = 46$ ), dorso normalmente liso, dedos de los pies y manos con discos expandidos e iris color rojo con una muy delgada reticulación negra. La especie es el *Pristimantis* más pequeño reportado y también el vertebrado terrestre más pequeño del Ecuador. Las características osteológicas de la nueva especie son similares a las observadas en el género *Pristimantis* y no ha habido ninguna pérdida de elementos óseos debido a su miniaturización. A la nueva especie se la conoce únicamente de dos localidades cercanas en la Cordillera del Cóndor, Provincia de Zamora Chinchipe, Ecuador.

**Palabras Claves:** Cordillera del Cóndor, *Pristimantis*, osteología, miniaturización, Strabomantidae

### Introduction

One of the most spectacular radiations of anurans in the world is represented by the neotropical *Pristimantis*, with 427 species (AmphibiaWeb, 2010). *Pristimantis* is distributed in northwestern South America, in the Andes of Colombia, Ecuador and Peru; it also occurs in Venezuela, Bolivia, south-central Brazil, Trinidad and Tobago and southern Central America (Hedges *et al.*, 2008).

The diversity of the genus could be associated with the evolution of direct development, and a variety of morphological traits that enables these frogs to inhabit niches not occupied by other amphibians. One of these traits, body size, presents a wide variation, ranging from a few millimeters (maximum snout-vent length of 14.5 mm in males *Pristimantis andinognomus*; Lehr & Coloma, 2008) to more than seven centimeters (snout-vent length of 73 mm in *P. lymani*; Barbour & Noble 1920; Hedges *et al.*, 2008). The species described below has a maximum snout-vent length (SVL) of 13.7 mm in males (range = 9.5–13.7 mm; mean =  $12.2 \pm 0.8$ ;  $n = 46$ ), being the smallest species in *Pristimantis* and the smallest terrestrial vertebrate of Ecuador.

Several morphological patterns are likely to be observed in species that undergo miniaturization because a reduced size is frequently achieved via the precocious truncation of development (Hanken, 1984). For