



## A new Andean species of *Philodryas* (Dipsadidae, Xenodontinae) from Ecuador

HUSSAM ZAHER<sup>1,6</sup>, JUAN C. ARREDONDO<sup>1</sup>, JORGE H. VALENCIA<sup>2</sup>, ERNESTO ARBELÁEZ<sup>3</sup>,  
MIGUEL T. RODRIGUES<sup>4</sup> & MARCO ALTAMIRANO-BENAVIDES<sup>5</sup>

<sup>1</sup> Museu de Zoologia da Universidade de São Paulo, Avenida Nazaré 481, CEP. 04263-000, Ipiranga, São Paulo, São Paulo, Brazil

<sup>2</sup> Fundación Herpetológica Gustavo Orcés, Av. Amazonas 3008 y Rumipamba, Quito, Ecuador

<sup>3</sup> Bioparque Amaru y Zoológico de Cuenca, Autopista Cuenca, Azogues, Km. 10,5, Cuenca, Ecuador

<sup>4</sup> Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, Caixa Postal 11.46 1, CEP 05422-970, São Paulo, Brazil

<sup>5</sup> Instituto de Investigaciones Científicas y Tecnológicas, Universidad Iberoamericana del Ecuador, 9 de Octubre N 25-12 y Av. Colón, Quito-Ecuador

<sup>6</sup> Corresponding author. E-mail: [hussam.zaher@gmail.com](mailto:hussam.zaher@gmail.com)

### Abstract

We describe a new species of *Philodryas* from the highlands of southern Ecuador. The new species is distinguished from all known species of *Philodryas* by a unique combination of coloration, scalation, and hemipenial characters. The new species resembles *Philodryas simonsii* in color pattern. However, they differ notoriously by their hemipenial morphology. The three other trans-Andean members of the genus (*Philodryas simonsii*, *Philodryas chamissonis*, and *Philodryas tachymenoides*), along with the new species, compose a probably monophyletic group that may be characterized by the presence of ungrooved postdiastemal teeth in the maxilla. Unlike most species of the genus *Philodryas*, the new species shows a restricted distribution, being apparently endemic to a small region of high-altitude (3150–4450m) grasslands in the southern Andes of Ecuador.

**Key words:** Andes, Hemipenis, Neotropical Snakes, Philodryadini, taxonomy

### Resumen

Describimos una nueva especie de *Philodryas* de las tierras altas del sur de Ecuador. La nueva especie se distingue de todas las especies de *Philodryas* por una combinación única de coloración, escamación y caracteres hemipenianos. La nueva especie se asemeja a *Philodryas simonsii* en el patrón de coloración. Sin embargo, estas especies difieren notoriamente en su morfología hemipeniana. Los otros tres miembros trans-Andinos del género (*Philodryas simonsii*, *Philodryas chamissonis*, y *Philodryas tachymenoides*) junto con la nueva especie componen un grupo probablemente monofilético, que puede ser caracterizado por la presencia de dientes post-diastemales sin surco en el maxilar. A diferencia de la mayoría de las especies del género *Philodryas*, la nueva especie presenta una distribución restringida, aparentemente siendo endémica a una pequeña región de pastizales de gran altitud (3150–4450m) al sur de los Andes de Ecuador.

**Palabras Clave:** Andes, Hemipenes, Philodryadini, Serpientes Neotropicales, taxonomía

### Introduction

Snakes of the genus *Philodryas* Wagler 1830 are large diurnal racers endemic from South America (Thomas 1976; Tipton 2005). Currently, 20 species are known to belong to the genus (Zaher *et al.* 2008, 2009). However, the taxonomic identity of several taxa within *Philodryas* remains obscure (e.g., Thomas 1996; Zaher 1999; Zaher *et al.* 2008, 2009; Grazziotin *et al.* 2012). Most species (17 spp.) inhabit the lowlands of cis-Andean South America, while only three are known to occur along the trans-Andean part of the continent in Chile, Bolivia, Peru, and

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#### APPENDIX 1. Specimens examined.

- Philodryas chamissonis* (N = 10).—**CHILE**: ATACAMA: Atacama, Km 700 (MZUSP 8235); BÍO-BÍO: Concepción (MZUSP 14419); Mulchén, Fundo Santa Raquel (MZUSP 8236); Los Angeles (MZUSP 8839); COQUIMBO: Locos (MZUSP 5412); SANTIAGO: No locality data (MZUSP 962); Santiago (MZUSP 4128–4129); Rungue (MZUSP 4135); Cerro San Cristobal (MZUSP 5934).
- Philodryas simonsii* (N = 20).—**PERU**: ANCASH: Malvas (MUSM 20056); Province of Recuay, Chaucayan, (MUSM 24862); Yurayacu (MUSM 3219); AREQUIPA: No locality data (MUSA 3314); Province of Arequipa, Vitor, Vitor (MUSA 902); Province of Caravelí, Atiquipa, Lomas de Atiquipa (MUSA 531, 1063, 1237); Province of Islay, Mejia, Lomas de Mejia (MUSA 527, 1256); Province of La Unión, Cotahuasi, Alrededores de Cotahuasi (MUSA 1300); CAJAMARCA: Cajamarca (BMNH 1946.1.4.98, holotype); LIMA, Province of Alis, Hualaria (CORBIDI 5607); Province of Cajatambo, Cajatambo (MUSM 25347); Province of Huarochiri, Santa Eulalia, 1800 m (CORBIDI 5008); Chacahuaro (MUSM 25315); Province of Oyón, Oyón (MUSM 23480); Tingo Alis (MUSM 23453). **ECUADOR**: LOJA: Loja (BMNH 1931.11.3.16); Catamayo Valley, 4700 m 35 Km N of Loja (BMNH 1935.11.3.93).
- Philodryas tachymenoides* (N = 7).—**PERU**: ANCASH: Bolognesi (MUSM 3029); LIMA: Province of Cajatambo, Cajatambo (MUSM 25351); Province of Yauyos, Alis (MUSM 23454, 23469, 23481–23482); Province of Oyón, Oyón (MUSM 23479).