



A new, long-standing misidentified species of *Psychrophrynella* Hedges, Duellman & Heinicke from Departamento Cusco, Peru (Anura: Strabomantidae)

IGNACIO DE LA RIVA^{1,3}, JUAN C. CHAPARRO² & JOSÉ M. PADIAL¹

¹Department of Biodiversity and Evolutionary Biology, Museo Nacional de Ciencias Naturales, CSIC. C/ José Gutiérrez Abascal 2, 28006 Madrid, Spain

²Museo de Historia Natural, Universidad Nacional de San Antonio Abad del Cusco, Plaza de Armas s/n (Paraninfo Universitario), Cusco, Perú

³Corresponding author. E-mail: iriva@mncn.csic.es

Abstract

We present the description of a new species of the recently described genus *Psychrophrynella*. Hitherto, frogs of this new species were traditionally misidentified as *Phrynopus peruvianus*. The new species is known only from elevations of 3270–3450 m in the vicinity of the type locality in the Cordillera de Paucartambo, Departamento Cusco, Peru. It is unique within *Psychrophrynella* in having a marked, oblique inner tarsal tubercle. The geographically closest species *Psychrophrynella bagrecito* Lynch, also possesses a tarsal tubercle.

Key words: Anura, Strabomantidae, *Noblella*, *Phrynopus*, *Psychrophrynella*, taxonomy, new species, Andes, Peru

Introduction

The study of the taxonomy of Andean frogs formerly included in the broad category of "eleutherodactylines" has accelerated in recent years with the description of dozens of species in the genera *Eleutherodactylus*, *Phrynopus* and *Phyllonastes*. In addition, the comprehensive phylogenetic studies of Heinicke *et al.* (2007) and Hedges *et al.* (2008) plus other, more partial studies (e. g., De la Riva *et al.*, 2008; Padial *et al.*, 2007; 2008) have led to a drastic taxonomic rearrangement of the whole group. As a result, the taxonomy of former Andean leptodactylid frogs is almost unrecognizable compared to what it was only five years ago. Former Andean Eleutherodactylinae are now in the family Strabomantidae; members of former Andean *Eleutherodactylus* are now mostly in the genus *Pristimantis*, whereas former species of *Phrynopus* are placed in six genera in two subfamilies—Strabomantinae (*Isodactylus* Hedges, Duellman & Heinicke, *Lynchius* Hedges, Duellman & Heinicke, *Niceforonia* Goin & Cochran, and *Phrynopus* Peters), and Holoadeninae (*Bryophryne* Hedges, Duellman & Heinicke, and *Psychrophrynella* Hedges, Duellman & Heinicke) (Hedges *et al.*, 2008).

This taxonomic research and the consequent rearrangements have altered previous classifications. For example, the Bolivian frog *Phrynopus laplacai* Cei (Leptodactylidae, Telmatobiinae) is now *Psychrophrynella wettsteini* (Parker) (Strabomantidae, Holoadeninae) (Lehr, 2006; De la Riva, 2007; Hedges *et al.*, 2008), but in the meantime, the species had a short placement in Brachycephalidae (Frost *et al.*, 2006), a family that has been redefined by Hedges *et al.* (2008). This state of flux, although perhaps surprising (or even annoying) for the lay person, technicians, and scientists working in other branches of biology, mostly represents good news for taxonomists, because it indicates that true scientific progress is being made; thus, it must be welcomed rather than seen as an impediment for getting stable, otherwise unrealistic species lists (see Padial & De la Riva, 2006).