



## A new species of limestone-forest frog, genus *Platymantis* (Amphibia: Anura: Ceratobatrachidae) from central Luzon Island, Philippines

CAMERON D. SILER<sup>1,4</sup>, ARVIN C. DIESMOS<sup>2</sup>, CHARLES W. LINKEM<sup>1</sup>, MAE L. DIESMOS<sup>3</sup>,  
& RAFE M. BROWN<sup>1</sup>

<sup>1</sup>Natural History Museum & Biodiversity Institute, Department of Ecology and Evolutionary Biology, The University of Kansas, Lawrence, Kansas 66045-7561, USA. E-mail (CDS): [camsiler@ku.edu](mailto:camsiler@ku.edu); (CWL): [cwlinkem@ku.edu](mailto:cwlinkem@ku.edu); (RMB): [rafe@ku.edu](mailto:rafe@ku.edu)

<sup>2</sup>National Museum of the Philippines, Rizal Park, Padre. Burgos Ave. Ermita 1000, Manila, Philippines.  
E-mail: [arvincdiesmos@i-manila.com.ph](mailto:arvincdiesmos@i-manila.com.ph)

<sup>3</sup>University of Santo Tomas, Espana Boulevard, Manila, Philippines; E-mail: [maediesmos@yahoo.com](mailto:maediesmos@yahoo.com)

<sup>4</sup>Corresponding Author. E-mail: [camsiler@ku.edu](mailto:camsiler@ku.edu)

### Abstract

We describe a new species of terrestrial limestone forest frog of the genus *Platymantis* from Biak Na Bato National Park in central Luzon Island, Philippines. *Platymantis biak* is assigned to the primarily arboreal *Platymantis guentheri* Species Group, and is distinguished from these and other congeners by features of its external morphology and preferred terrestrial limestone microhabitat. Several distinguishing morphological characters include a moderately large body (32.3–39.9 mm SVL for 23 males and 37.4–42.4 mm SVL for 8 females), moderately expanded finger discs and slightly expanded toe discs, smooth skin, and limb banding pattern. The new species is yet another species in a rapidly growing group of newly discovered Philippine forest frogs with preferences for forested, karst habitats.

**Key words:** Biodiversity; Cryptic species; Endemism; Limestone frogs; *Platymantis guentheri* Species Group; SW Pacific

### Introduction

Frogs of the genus *Platymantis* exhibit extraordinary species diversity in the Philippine Archipelago (Brown, 2004; Brown *et al.*, 2008), with 28 species known thus far (Siler *et al.*, 2009). The rate of discovery of new taxa within the genus is remarkably high (Brown, 2004; Brown and Gonzales, 2007; Brown *et al.*, 2008; Siler *et al.*, 2007, 2009). Within the Philippines, three species groups are recognized on the basis of external morphology (Brown *et al.*, 1997a,c; Alcala and Brown, 1999): the *P. dorsalis* Group, the *P. hazelae* Group, and the *P. guentheri* Group. In addition to the morphological variation among *Platymantis* in the Philippines, the advertisement calls and preferred microhabitats of the species also vary predictably, and are diagnostic of higher level clades (Brown *et al.*, 2002; Brown, 2004; Brown and Gonzales, 2007).

Herpetological field surveys undertaken in forested karst formations across the Philippines have recurrently resulted in the discovery of new and endemic species of frogs and lizards (e.g., Brown and Alcala, 1970, 1982a; Rosler *et al.*, 2006; Siler *et al.*, 2007, 2009; Linkem *et al.*, 2010). Karst-obligate species are found inhabiting microhabitats such as limestone caves and inside deep crevices or on the surface of limestone boulders, cliffs, and outcrops (Brown and Alcala, 1982a; Siler *et al.*, 2007, 2009; Linkem *et al.*, 2010). The continued field observations indicate that karst ecosystems may have an important role in the evolution of endemic and specialized forms of amphibians and reptiles in the Philippines.

Herpetological surveys were conducted on four separate occasions in 2009 in Biak Na Bato National Park, a nature reserve located in the east-central region of Luzon Island (Fig. 1). Surveys were conducted on January 17, February 1–2, March 15–16, and November 21. Among the species recorded during the field surveys include a striking form of *Platymantis* that was found inhabiting karst habitats within the Park.