



A new species of *Gekko* (Squamata: Gekkonidae) from central Luzon Island, Philippines

CHARLES W. LINKEM^{1,3}, CAMERON D. SILER¹, ARVIN C. DIESMOS², EMERSON SY²
& RAFE M. BROWN¹

¹Natural History Museum & Biodiversity Institute, Department of Ecology and Evolutionary Biology, The University of Kansas, Lawrence, Kansas 66045-7561, USA.

E-mail (CWL): cwlinkem@ku.edu; (CDS): camsiler@ku.edu; (RMB): rafe@ku.edu

²National Museum of the Philippines, Rizal Park, Padre. Burgos Ave. Ermita 1000, Manila, Philippines

³Corresponding author. E-mail: cwlinkem@ku.edu

Abstract

We describe a new species of gekkonid lizard, *Gekko carusadensis*, from low elevation, disturbed and secondary-growth forest in east-central Luzon Island, Philippines. Numerous features of its external morphology distinguish it from other congeners, including the presence of a distinct color pattern, body size, and a unique combination of scale counts. The new species has been found on karst outcrops and cave systems at low elevation. The new species typifies the rapidly expanding known diversity of Philippine gekkonid lizards, and is the third species in the genus to be described in the last three years.

Key words: Biodiversity; Endemism; Faunal region; Gekkonidae; Limestone forest

Introduction

The known diversity of Philippine gekkonid lizards has increased rapidly, and now includes ten genera and 42 described species: *Cyrtodactylus* Gray (6 species), *Gekko* Laurenti (12), *Gehyra* Gray (1), *Hemidactylus* Oken (5; including *platyurus* [Schneider], a species formerly assigned to *Cosymbotus* Fitzinger), *Hemiphyllodactylus* Bleeker (1), *Lepidodactylus* Fitzinger (6), *Luperosaurus* Gray (7), *Pseudogekko* Taylor (4), and *Ptychozoon* Kuhl & van Hasselt (1) (Taylor, 1922a,b; Brown & Alcala, 1978; Brown & Diesmos, 2000; Brown *et al.*, 1997, 1999, 2007, 2008, 2009, 2010; Gaulke *et al.*, 2007; Welton *et al.*, 2009, in press).

There are 12 species of the genus *Gekko* documented in the Philippines, nine are considered to be endemic to the archipelago (Brown *et al.*, 2009). Two species possess broader geographic distributions (*G. gekko* [Linnaeus], and *G. monarchus* [Schlegel]; Taylor, 1922a, b; Brown & Alcala, 1978; Ota *et al.*, 1989), and *Gekko hokouensis* Pope likely is represented in the country's gekkonid fauna in error (Brown *et al.*, 2008, 2009). The remaining nine Philippine endemic species include *G. athymus* Brown & Alcala, *G. gigante* Brown & Alcala, *G. mindorensis* Taylor, *G. palawanensis* Taylor, *G. porosus* Taylor, *G. romblon* Brown & Alcala, *G. ernstkelleri* Rösler, Siler, Brown, Demeglio, & Gaulke, *G. crombota* Brown, Oliveros, Siler, & Diesmos, and *G. rossi* Brown, Oliveros, Siler, & Diesmos. These species are known to share a combination of morphological traits, including: (1) moderate body size and longer, slender limbs; (2) near complete absence of interdigital webbing or cutaneous body expansions; (3) enlarged dorsal tubercles arranged in longitudinal rows on the dorsum (except *G. athymus*, dorsal tubercles absent); (4) scales of dorsum between tubercle rows minute, non-imbricate; (5) scales of venter enlarged, flat, imbricate; (6) differentiated postmentals elongate and slender; and (7) subcaudals enlarged, plate-like (Brown & Alcala, 1978; Brown *et al.*, 2007, 2008, 2009).

Herpetological field surveys in the lower-elevation forest of the Municipality of San Miguel and Doña