



<http://dx.doi.org/10.11646/zootaxa.4020.3.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:00EB426F-43F8-4701-BAA6-8C54C9B6B44E>

## Two new species of *Cyrtodactylus* (Squamata: Gekkonidae) from the Southern Bukit Barisan Range of Sumatra and an estimation of their phylogeny

MICHAEL B. HARVEY<sup>1</sup>, KYLE A. O'CONNELL<sup>2</sup>, GABRIEL BARRAZA<sup>1</sup>, AWAL RIYANTO<sup>3</sup>,  
NIA KURNIAWAN<sup>4</sup> & ERIC N. SMITH<sup>2</sup>

<sup>1</sup>Department of Biological Sciences; Broward College; 3501 S.W. Davie Road; Davie, FL 33314; USA.

E-mail: mharvey@broward.edu

<sup>2</sup>The Amphibian and Reptile Diversity Research Center and Department of Biology; University of Texas at Arlington; 501 S. Nedderman Drive; Arlington, TX 76010; USA

<sup>3</sup>Laboratory of Herpetology; Museum Zoologicum Bogoriense; Research Center for Biology, Indonesian Institute of Sciences–LIPI; Jl. Raya Jakarta Bogor km 46; Cibinong, West Java, 16911; Indonesia

<sup>4</sup>Department of Biology; Universitas Brawijaya; Jl. Veteran; Malang, East Java, 65145; Indonesia

### Abstract

We describe *Cyrtodactylus psarops* **sp. nov.** and *C. semicinctus* **sp. nov.**, two new species of bent-toed geckos from montane forests in the southern Bukit Barisan Range of Sumatra, Indonesia. The new species are closely related to one another and to *C. semenanjungensis*, a lowland species currently known only from Peninsular Malaysia. Three characters of the new species immediately distinguish them from most congeners in the Sunda Region: they lack transversely enlarged subcaudals, have a precloacal depression, and have a greatly enlarged scale positioned at the apex of a continuous series of femoral and precloacal pore-bearing scales. They differ from one another in cephalic pattern, tuberculation of the brachium, and in numbers of cloacal tubercles, dorsal bands, and ventrals in a transverse row. The greatly enlarged scale at the apex of the precloacal pores appears to be a rare apomorphy of these two species and *C. agamensis*.

**Key words:** Bent-toed gecko, *Cyrtodactylus psarops* **sp. nov.**, *Cyrtodactylus semicinctus* **sp. nov.**, *Cyrtodactylus semenanjungensis*, Jambi, Kerinci, Lampung, Sumatera Selatan, phylogenetics

### Introduction

In recent years, Southeast Asian species of bent-toed geckos (*Cyrtodactylus*) have been the subject of considerable interest. Herpetological surveys throughout the region, but especially in Burma (Bauer 2002, 2003), Vietnam (Schneider *et al.* 2014), and Malaysia (Grismer *et al.* 2014a, b, c) identified many new species, and *Cyrtodactylus* currently contains more species than any other genus of Gekkonidae (Uetz & Hošek 2015). Peninsular Malaysia alone harbors more than 30 species, and just last year, L. L. Grismer's research group described five new species from that landmass, including one species from the extensively surveyed Batu Caves, a system in the center of the sprawling metropolis of Selangor (Grismer *et al.* 2014b). At the current rate of discovery, we are far from knowing the true diversity of these geckos.

In sharp contrast to adjacent Peninsular Malaysia, research on Sumatran bent-toed geckos has a brief history. On the basis of a single female specimen in the British Museum of Natural History, Bleeker (1860) described *Gymnodactylus agamensis* from “Agam,” an area in the vicinity of Bukittinggi, currently in Kabupaten Agam, West Sumatra Province. However, following Boulenger (1887), most authors considered *G. agamensis* to be a junior synonym of *Cyrtodactylus marmoratus* Gray 1831. Recent checklists such as Uetz and Hošek (2015) still place Bleeker's name in the synonymy of *C. marmoratus*, even though Rösler *et al.* (2007) revalidated this species. Based on a single specimen in the Museum für Naturkunde in Berlin, Werner (1896) described *G. lateralis* from “Sumatra.” Unlike *C. agamensis*, subsequent authors continued to recognize this species as valid. Grismer *et al.* (2012a) summarized diagnostic characters of this species, and Manthey and Grossmann (1997) provided a description and distributional data for it.