



The fourth Bent-toed Gecko of the genus *Cyrtodactylus* (Squamata: Gekkonidae) from Java, Indonesia

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Abstract

Cyrtodactylus petani **sp. nov.** is a new species of Bent-toed Gecko from Java, Indonesia that had been masquerading under the name *C. fumosus* (Müller, 1895). The new species is differentiated from *C. fumosus* and all its Sundaland congeners by having the following combination of morphological characters: a maximum SVL of 57.2 mm; nine or ten supralabials; seven or eight infralabials; strongly tuberculate body and limbs; 20–25 paravertebral tubercles; 30–35 ventral scales; enlarged precloacal scales; enlarged femoral scales; 17–18 subdigital lamellae on the fourth toe; 31–35 continuous precloacal and femoral pores in males, pores absent in females; no precloacal groove; no enlarged median subcaudals; tubercles on anterior portion of tail; no reticulated pattern on top of head; a blotched dorsal pattern; and no paired, dark, semi-lunar shaped blotches on the nape.

Key words: *Cyrtodactylus*, new species, Java, taxonomy, Gekkonidae

Introduction

Recently, the number of new species of *Cyrtodactylus* in Southeast Asia has increased as a result of molecular (Johnson *et al.* 2012; Grismer *et al.* 2012a; Grismer *et al.* 2012b; Grismer *et al.* 2014, Riyanto *et al.* 2015) and morphological analyses (Iskandar *et al.* 2011; Riyanto 2012; Pauwels & Sumontha 2014; Pauwels *et al.* 2014; Truong *et al.* 2014) and species on the island of Java have been no exception. Although Schneider *et al.* (2014) stated the primary reason for the high diversity of *Cyrtodactylus* in Southeast Asia is due to their adaptation to limestone habitats there are many other reasons (Grismer 2011).

De Rooij (1915) reported *Cyrtodactylus fumosus* (Müller) and *C. marmoratus* Gray from Java. Brongersma (1934) opined that the characters used to diagnose these species from each other in Java were of no diagnostic value. However, we have observed that these two species in Java differ in that *C. marmoratus* has numerous keeled, conical dorsal tubercles while *C. fumosus* has tubercles that are flat, round, and relatively few in number (type examined). Although Brongersma (1934) believed *C. fumosus* and *C. marmoratus* from Java were conspecific, and that the Javan populations differed from true *C. fumosus* from Sulawesi. In this paper, however, Javan *C. fumosus* is differentiated from *C. marmoratus* and a fourth species of *Cyrtodactylus* is described from East Java that was once considered to be *C. fumosus*.

Material and methods

Color notes were taken from digital images of living specimens prior to preservation. The following measurements from the type series were taken with Mitutoyo dial calipers to the nearest 0.1 mm under a AmScope microscope following Grismer *et al.* (2012b): snout-vent length (SVL), taken from the tip of snout to the vent; tail length