



New species of *Blaesodactylus* (Squamata: Gekkonidae) from Tsingy karstic outcrops in Ankarana National Park, northern Madagascar

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Abstract

We describe a new gecko of the genus *Blaesodactylus* from a karstic outcrop in deciduous dry forest of Ankarana National Park, northern Madagascar. *Blaesodactylus microtuberculatus* **sp. nov.**, the fifth recognized species of *Blaesodactylus*, is distinguished from all other congeners, *B. ambonihazo*, *B. antongilensis*, *B. boivini* and *B. sakalava* by a combination of small, homogeneous gular granules, unspotted venter and lack of tubercles on distal part of original tail. Mitochondrial (ND2 and ND4) and nuclear (RAG-1) DNA identify a consistent divergence between *B. microtuberculatus* and its allotopic sister species *B. boivini*. We highlight habitat partitioning in these allotopic congeners where *Blaesodactylus microtuberculatus* inhabits karstic outcrops in Tsingy massif, and *B. boivini* dwells on tree trunks in deciduous dry forest.

Key words: Squamata, Gekkonidae, Madagascar, *Blaesodactylus microtuberculatus* **sp. nov.**

Introduction

Genus *Blaesodactylus* Boettger, 1893 comprises relatively large sized nocturnal gekkonid, endemic to Madagascar (Glaw & Vences 2007; Greenbaum *et al.* 2007). Greenbaum *et al.* (2007) confirmed the reciprocal monophyly of *Blaesodactylus* and its sister taxon, *Homopholis* Boulenger, 1885 from continental Africa. The genus *Blaesodactylus* includes *B. antongilensis* (Böhme & Meier 1980), *B. boivini* (Duméril 1856), *B. sakalava* (Grandidier 1867), and the recently described *B. ambonihazo* Bauer, Glaw, Gehring & Vences, 2011, from Ankarafantsika, northwestern Madagascar. All four of these species are common where they occur, inhabiting dry deciduous forests or rain forests, and usually occupying tree trunks (Glaw & Vences 2007; Ikeuchi *et al.* 2014).

During fieldwork in 2012, we collected and observed several *Blaesodactylus* specimens from karstic outcrops and tree trunks in Ankarana National Park, northern Madagascar. One specimen collected from a karstic outcrop is morphologically distinct from the others collected from tree trunks. Here, we describe the former specimen as a new *Blaesodactylus* species; the fifth member of this endemic Madagascan genus. This new taxon is the sister species of its allotopic (*sensu* Rivas 1964) congener, *B. boivini*, and therefore, is of special interest as an additional example of localized endemism to karstic massifs in Madagascan geckos.

Material and methods

Sampling. Field surveys were conducted from 2 to 5 December 2012, in dry deciduous forest in Ankarana National Park, Antsiranana Province, northern Madagascar. Excursions into forested habitats included both day and night searches of trees and outcrops for specimens. We collected *Blaesodactylus* when possible, and recorded the geographic coordinates and time of observation for all individuals, including both inaccessible and captured