



New species of *Blaesodactylus* (Squamata: Gekkonidae) from Ankarafantsika National Park in north-western Madagascar

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Abstract

We describe a new gecko of the genus *Blaesodactylus* from dry forest in Ankarafantsika National Park, western Madagascar. *Blaesodactylus ambonihazo* **sp. nov.** is distinguished by its medium size, small and homogeneous gular granules, unspotted ventral side, and lack of tubercles on distal part of original tail. The new species, for which we propose an IUCN Red List status of "Data Deficient", is also characterized by a strong differentiation in the mitochondrial DNA and a unique haplotype in the nuclear Rag-1 gene. The molecular data presented herein also confirm new locality records of *Blaesodactylus antongilensis* along the Malagasy east coast (Ambodiriana, Andaparaty, Befanjana and Sahafina). Within its known distribution area this species is genetically homogeneous in the markers studied. In contrast, the population of *B. sakalava* from the Tsingy de Bemaraha in central western Madagascar is genetically divergent compared to south-western specimens and needs further morphological and genetic studies to clarify its taxonomic status.

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

Introduction

Madagascar is one of the world's most renowned areas of biological diversity. Knowledge of the diversity and distribution of Madagascar's unique herpetofauna has rapidly increased within the last two decades, but the taxonomic status and the distribution of many endemic amphibians and reptiles remain poorly known. Intensive research activity in recent years and the comprehensive use of integrative taxonomical approaches, combining molecular and morphological data (see Padial *et al.* 2010), have led to the identification of many new species and improved our understanding of Madagascar's true biodiversity (e.g., Vieites *et al.* 2009). Recent comprehensive taxonomic rearrangements have shown that numerous widespread species in fact are species complexes, leading to their splitting into several species (e.g., Raxworthy & Nussbaum 2006; Vences *et al.* 2010).

The taxonomic history of the geckos in the genus *Blaesodactylus* Boettger was recently reviewed by Greenbaum *et al.* (2007). These authors confirmed the sister group relationship and reciprocal monophyly of the Malagasy *Blaesodactylus* and the mainland African *Homopholis*, with which it shares a convoluted taxonomic history (Boulenger 1896; Mocquard 1909; Angel 1942; Underwood 1954; Wermuth 1965; Blanc 1971; Russell 1978; Böhme & Meier 1980; Kluge & Nussbaum 1995). Using a combination of mitochondrial and nuclear DNA sequence data Greenbaum *et al.* (2007) retrieved a well resolved phylogeny in which *B. boivini* (Duméril) was the sister to the other two recognized species of the genus, *B. sakalava* (Grandidier) and *B. antongilensis* (Böhme & Meier). They also included in their sampling a *B. antongilensis*-like specimen representing a population from Ankarafantsika that had previously been noted for its morphological distinctiveness (Henkel & Schmidt 1991, 1995; Krüger 1997, Glaw & Vences 1992, 1994, 2007). They found this form to be genetically highly divergent from all three recognized species of the genus. Broader molecular phylogenetic sampling within *Blaesodactylus*,