



A new species of *Anolis* (Squamata: Iguania: Dactyloidae) formerly referred to as *A. pachypus* from the Cordillera de Talamanca of western Panama and adjacent Costa Rica

SEBASTIAN LOTZKAT^{1,2,3}, JOE-FELIX BIENENTREU^{1,2}, ANDREAS HERTZ^{1,2} & GUNTHER KÖHLER¹

¹Senckenberg Forschungsinstitut und Naturmuseum, Senckenberganlage 25, 60325 Frankfurt am Main, Germany

²Goethe-University, Institute for Ecology, Evolution & Diversity, Biologikum, Building C, Max-von-Laue-Straße 13, 60438 Frankfurt am Main, Germany

³Corresponding author. E-mail: lotzkat@yahoo.com

Abstract

We describe *Anolis benedikti* **sp. nov.** from lower montane elevations of the Cordillera de Talamanca in Bocas del Toro and Chiriquí provinces of western Panama, and adjacent Puntarenas province of eastern Costa Rica. The new species is very similar to *A. magnaphallus*, *A. pachypus*, *A. pseudopachypus*, and *A. tropidolepis*, which inhabit the same mountain range. It differs from these species in the coloration of the male dewlap, which is red with a yellow anterior margin (versus male dewlap solid purplish red in *A. magnaphallus* and *A. tropidolepis*, red with a central yellow blotch in *A. pachypus*, and solid yellow in *A. pseudopachypus*), and in pholidotic characters.

Key words: *Anolis pachypus* complex, cryptic species, Lower Central America, Cordillera Central, Talamancan highlands, Cerro Pando, conservation, morphology

Resumen

Describimos *Anolis benedikti* **sp. nov.** de elevaciones montañas bajas de la Cordillera de Talamanca, provincias de Bocas del Toro y Chiriquí en el occidente de Panamá y la adyacente provincia de Puntarenas en Costa Rica oriental. La nueva especie es muy similar a *A. magnaphallus*, *A. pachypus*, *A. pseudopachypus* y *A. tropidolepis*; todas ellas especies que habitan la misma cordillera. Se distingue de ellas en la coloración del pliegue gular masculino, el cual es rojo con el borde anterior amarillo (versus pliegue gular masculino completamente rojo en *A. magnaphallus* y *A. tropidolepis*, rojo con una mancha central amarilla en *A. pachypus*, y completamente amarillo en *A. pseudopachypus*), y en características de escamación.

Palabras clave: *Anolis pachypus* complejo, especies crípticas, sur de Centroamérica, Cordillera Central, Serranía de Talamanca, Cerro Pando, conservación, morfología

Introduction

The genus *Anolis* (sensu Poe 2004) is a highly diverse lizard group, and with 381 described species (Uetz 2011) the largest vertebrate genus in the world. Anoles are the most speciose reptile genus of Panama, accounting for about 44% of the country's lizard species and almost 16% of its entire reptile fauna (Jaramillo *et al.* 2010, Köhler 2010, Köhler *et al.* 2010b, own data). So far, thirty-nine species of *Anolis* have been reported for Panama. As many as ten of these species have been described during the last five years (Köhler *et al.* 2007, Poe and Ibañez 2007, Hulebak *et al.* 2007, Köhler and Sunyer 2008, Poe *et al.* 2009, Köhler 2010), suggesting that additional discoveries can be expected, especially among species groups inhabiting the comparatively less studied highlands of Panama.

Between 2008 and 2010, we carried out fieldwork at premontane and montane elevations along both the Caribbean (northern) and the Pacific (southern) versant of the Cordillera Central of western Panama. This