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A strikingly polychromatic new species of *Gonatodes* (Squamata: Sphaerodactylidae) from northern Venezuela

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Abstract

We describe a new species of diurnal gecko, *Gonatodes rozei* **sp. nov.**, from tropical and premontane humid forests of north central Venezuela. The new species can be distinguished from other congeners by a combination of large size, sub-caudal pattern B (1'1'1''), three or four lateral scale rows on the digits, males with blue iris, scalation of the gular area, and aspects of color pattern in males and females. The new species is strongly sexually dichromatic and up to four different color morphs are observed in males.

Keywords: gecko, lizard, reptile, taxonomy, polymorphic

Introduction

The neotropical genus *Gonatodes* represents a group of mostly diurnal geckos that currently contains 28 species (Rojas-Runjaic *et al.* 2010; Schargel *et al.* 2010; Sturaro & Avila-Pires 2011; Kok 2011) collectively distributed from southern Mexico in the north, to Bolivia and Brazil in the south, and including also many islands of the Antilles (Rivero-Blanco 1979). The phylogenetic relationships of members of this genus have been examined recently and its monophyly seems well corroborated (Gamble *et al.* 2008; Schargel *et al.* 2010). However, several new species remain to be described and other taxonomic changes are likely (Rivero-Blanco 1979; Schargel 2008; Schargel *et al.* 2010). The taxonomy of *Gonatodes* has been especially dynamic in Venezuela, with five species being described in recent years from this country (Esqueda 2004; Barrio-Amorós & Brewer-Carías 2008; Rivas & Schargel 2008; Rojas-Runjaic *et al.* 2010; Schargel *et al.* 2010).

One of the most striking features of *Gonatodes* is that most species are highly sexually dichromatic. Whereas females are cryptically colored, males tend to have bright-colored (yellow, red, green, orange) markings on the head, sides of the body, and even the underside of the tail (Rivero-Blanco 1979). Furthermore, in several species of *Gonatodes* there are remarkable, within population, discrete differences in coloration in males (male polychromatism), with some species having up to three well-defined color morphs (Rivero-Blanco 1968; Schargel 2008; Schargel *et al.* 2010). Herein we describe a new species of *Gonatodes* from north central Venezuela that shows the most extreme levels of variation in male coloration yet documented in the genus. In this new species up to four different male color morphs can be found within the same locality.

Materials and methods

Specimens examined are deposited in the herpetological collections of the British Museum on Natural History (BMNH), Museo de Biología de la Universidad Central de Venezuela (MBUCV), Museo de Ciencias Naturales de Caracas (MCNC), Museo de Historia Natural La Salle in Caracas (MHNLS), the University of Texas at Arlington (UTA) and the Texas Cooperative Wildlife Collection (TCWC). We used a digital caliper to measure snout-vent