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A new species of *Centruroides* Marx (Scorpiones: Buthidae) from Panama and new distribution records for *Centruroides bicolor* (Pocock, 1898) and *Centruroides granosus* (Thorell, 1876)

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Abstract

A new species, *Centruroides panamensis* **n. sp.**, from the foothills of Volcán Barú in the Province of Chiriquí, Panama is described with a extremely narrow distributional range. New distribution records of *Centruroides bicolor* (Pocock, 1898) are also presented.

Key words: Volcán Barú, endemism

Introduction

The family Buthidae (Scorpiones) is represented in Panama by three genera: *Ananteris* Thorell, 1891, *Tityus* Koch, 1836 and *Centruroides* Marx, 1890. The circumtropical introduced buthid species *Isometrus maculatus* (DeGeer, 1778), reported from Costa Rica and Colombia (Francke & Stockwell 1987; Fet *et al.* 2000), has not been recorded from Panama (Lourenço & Méndez 1984, DQA personal information). In the present contribution one new species of *Centruroides* is described from the Cordillera Central, Chiriquí Province, Panama, representing the fourth known species of this genus from Panama: *C. bicolor* (Pocock, 1898), *C. limbatus* (Pocock, 1898), *C. granosus* (Thorell, 1876) [as *C. margaritatus* (Gervais, 1841)] and *C. panamensis* **n. sp.** *Centruroides gracilis* (Latreille, 1804), reported from Panama (Panama and Bocas del Toro provinces) by Lourenço & Méndez (1984) and Fet *et al.* 2000, has not been collected in Panama nor in Costa Rica (Francke & Stockwell 1987; Teruel 2011; Teruel & Cozijn 2011). *Centruroides panamensis* **n. sp.** is very narrowly distributed, indicating it is highly endemic and extremely susceptible to environmental degradation.

Methods

Laboratory Methods: Specimens were examined under a Leica MZ APO stereomicroscope. Measurements were taken using an ocular micrometer and a Mitutoyo® Digimatic 500-734-10 caliper. Ultraviolet fluorescence and conventional light photomicrographs were prepared using a Microptics™ ML-1000 digital imaging system, and the digital images subsequently edited and prepared into plates with the aid of Adobe Photoshop.

Material Examined: Specimens of *C. panamensis* **n. sp.** and other species of *Centruroides* examined for comparison are deposited in the following institutions: Laboratorio de Artrópodos Venenosos, Museo de Invertebrados G.B. Fairchild, Universidad de Panamá, Panamá (LAV-MIUP); American Museum of Natural History, New York, NY, USA (AMNH-NY).

Terminology: Measurements follow Stahnke (1970), Lamoral (1979), and Prendini (2001). General anatomy follows Vachon (1963, 1964), Hjelle (1990) and Sissom *et al.* (1990), trichobothria follows Vachon (1974, 1975), carination follows Prendini (2001).

mountain range in Panama, provides evidence for arachnid endemism in this unique region and has important implications for conservation.

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