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Two new earthworm species (*Oligochaeta: Annelida*) of the Caribbean region of Colombia

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Abstract

Two new earthworm species are described, *Periscolex malibu* **sp. nov.** (Rhinodrilidae) and *Righiodrilus lebrijae* **sp. nov.** (Glossoscolecidae). They were found in relicts of tropical dry forests surrounding wetlands in the southern department of Cesar, located near the Caribbean coast of Colombia. *Periscolex malibu* **sp. nov.** is close to *P. fuhrmanni* Michaelsen, 1913 by the position of both clitellum and tubercula pubertatis, but differs in the extension of the clitellum and in the presence of five pairs of spermathecae. *Righiodrilus lebrijae* **sp. nov.** is close to *R. paolettii* Righi, 1984a by the extension of the clitellum, but differs in the extension of the tubercula pubertatis, the extension of the seminal vesicles, the position of the male pores, the arrangements of setae, and the shape of the spermathecae.

Key words: Glossoscolecidae, Rhinodrilidae, Clitellata, *Periscolex*, *Righiodrilus*, taxonomy, classification, geographic distribution, wetlands

Resumen

Se describen dos especies nuevas de lombrices de tierra, *Periscolex malibu* **sp. nov.** (Rhinodrilidae) y *Righiodrilus lebrijae* **sp. nov.** (Glossoscolecidae). Estas especies fueron encontradas en relictos de bosques secos tropicales en zonas aledañas a las ciénagas del sur del departamento del Cesar, localizado cerca de la costa Caribe de Colombia. *Periscolex malibu* **sp. nov.** es cercano a *P. fuhrmanni* por la posición del clitelo y las las bandas de las pubertad, pero difieren por la extensión del clitelo y la presencia de cinco pares de espermatecas. *Righiodrilus lebrijae* **sp. nov.** es cercano a *R. paolettii* por la extensión del clitelo, pero difiere de esta especie por la extensión de los tuberculos de la pubertad, la extensión de las vesículas seminales, la posición de los poros masculinos, el arreglo de las cerdas y la forma de las espermatecas.

Palabras clave: Glossoscolecidae, Clitellata, *Periscolex*, *Righiodrilus*, taxonomía, clasificación, distribución geográfica, ciénagas

Introduction

The dispersal of earthworms in the Caribbean region is limited by their intolerance to saltwater (Csuzdi & Pavlíček 2009). Although the majority of studies have focused on Puerto Rico (Fragoso 2001), Cuba appears to have the highest number of earthworm species of all Caribbean islands (Rodríguez *et al.* 2007). In the Caribbean region of Colombia, eight species of earthworms have been collected in the Sierra Nevada de Santa Marta, San Andres Islands, and in the La Guajira department (Righi 1984b; Zicsi 1995a; Reynolds & Reynolds 2001; Feijoo 2007), that is, 5.8% of the 139 species of earthworms belonging to 34 genera and eight families that have been recorded for the country (Feijoo & Celis 2012).

The Caribbean region of Colombia is characterized by high climatic variability, ranging from dry climate with 250–800 mm of annual precipitation to extremely humid climate with more than 1800–3600 mm of annual precipitation (Rangel-Ch. & Carvajal-Cogollo 2012a). Its vegetation is related floristically and ecologically to the biogeographical region of Chocó, the Andean region and the entire Caribbean basin. The region's diversity is considered highly related to wetland complexes (Rangel-Ch. 2012).