



# Article

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## New species of earthworms (Oligochaeta: Glossoscolecidae) in the Amazon region of Colombia

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### Abstract

Three new and four known species of earthworms (Oligochaeta: Glossoscolecidae) from the department of Caquetá in Colombia's Amazon region were studied. Species belong to the following three families: Glossoscolecidae: *Andiodrilus nonuya* **sp. nov.**, *Andiorrhinus (Turedrilus) yukuna* **sp. nov.**, *Pontoscolex (Pontoscolex) bora* **sp. nov.**, and *Pontoscolex corethrurus* (Müller, 1857); Acanthodrilidae: *Dichogaster (Diplotheodrilus) affinis* (Michaelsen, 1890), *Dichogaster (Diplotheodrilus) bolau* (Michaelsen, 1891), and *Dichogaster (Diplotheodrilus) saliens* (Beddard, 1893); and Ocnodrilidae: *Ocnodrilus occidentalis* Eisen, 1878. With these new records, the earthworm fauna of Colombia now contains 139 species. Keys to differentiate species of *Andiodrilus* Michaelsen, 1900, *Andiorrhinus (Turedrilus)* Righi, 1993, and *Pontoscolex (Pontoscolex)* (Müller, 1857) are provided.

**Key words.** *Andiodrilus*, *Andiorrhinus*, *Pontoscolex*, Clitellata, Caquetá, Amazonia

### Resumen

Se estudiaron tres especies nuevas y cuatro conocidas de lombrices de tierra (Oligochaeta: Glossoscolecidae) de la región Amazónica de Colombia, específicamente en el departamento del Caquetá. Las especies pertenecen a las siguientes tres familias: Glossoscolecidae: *Andiodrilus nonuya* **sp. nov.**, *Andiorrhinus (Turedrilus) yukuna*, **sp. nov.**, *Pontoscolex (Pontoscolex) bora*, **sp. nov.** y *Pontoscolex corethrurus* (Müller, 1857); Acanthodrilidae: *Dichogaster (Diplotheodrilus) affinis* (Michaelsen, 1890), *Dichogaster (Diplotheodrilus) bolau* (Michaelsen, 1891) y *Dichogaster (Diplotheodrilus) saliens* (Beddard, 1893); y Ocnodrilidae: *Ocnodrilus occidentalis* Eisen, 1878. Con los nuevos registros la fauna de lombrices de Colombia ahora contiene 139 especies. Se incluyeron, además, tres claves para diferenciar las especies de *Andiodrilus* Michaelsen, 1900, *Andiorrhinus (Turedrilus)* Righi, 1993 y *Pontoscolex (Pontoscolex)* (Müller, 1857).

### Introduction

The survey conducted by Lavelle and Lapied (2003) indicated the presence of 105 earthworm species in the Guyana Shield. The number of species has been subsequently increased to 124 with the new additions made by James (2009), Feijoo and Celis (2010), Csuzdi and Pavlíček (2011), and Feijoo and Celis (in press), together with those found during the current study. The species found in the Guyana Shield include 84 species of the Glossoscolecidae family, four of which belong to the genus *Andiodrilus*, eight to *Andiorrhinus (Turedrilus)*, and seven to *Pontoscolex (Pontoscolex)*. The genera *Andiodrilus*, *Andiorrhinus*, and *Pontoscolex* all have three pairs of calciferous glands in segments 7–9. They include earthworms with large diversity in shape, size, and color; most of them inhabit intermediate soil layers (from 5 to 60 cm depth), and endogeic species predominate.

Only recently have surveys been conducted to identify earthworm species in the Colombian Amazon region (Feijoo & Celis 2010; Feijoo & Celis 2011). Prior earthworm surveys in Colombia had focused on the Andean region (Righi 1995; Zicsi *et al.* 2002; Feijoo *et al.* 2004, Feijoo 2007, 2008).