



Earthworms (Oligochaeta: Glossoscolecidae) of the Amazon region of Colombia

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Abstract

The descriptions of three species of terrestrial oligochaetes, family Glossoscolecidae, are added to the catalog of earthworms of Colombia's Amazon region: *Martiodrilus (Maipure) huitoto* **sp. nov.**, *M. (Cordilleroscolex) mirania* **sp. nov.**, and *Periscolex coreguaje* **sp. nov.** With these new registries, the earthworms fauna of Colombia now contains 136 species. A key is included to differentiate species of *Periscolex*, and several observations are given related to the distribution of species and the presence of earthworms depending on changes in land use.

Key words: Caquetá, *Martiodrilus*, *Periscolex*, new species.

Introduction

Although studies on earthworms in the Amazon region are on going, Gilberto Righi has published almost 30 articles describing different species (Lavelle & Lapied 2003). Righi's research endeavors, initially assisted by Professor Dr. Andrés Zicsi, have been oriented toward the assembly of a catalog of earthworms found in Colombia's Andean and Amazon ecoregions and have served to build the competencies of new taxonomists in Latin America (Righi 1995; Zicsi *et al.* 2002; Feijoo *et al.* 2004, Feijoo 2007; Feijoo 2008).

This article describes three species collected during two expeditions to the department of Caquetá, Colombia. The first expedition was conducted in January 1989 to Belén de Los Andaquíes and the second consisted of a systematic sampling in rural areas of the municipalities of Belén, Florencia, and Morelia, as part of the activities of the Amazon landscape biodiversity project ("Biodiversité des paysages Amazoniens. Déterminants socio-économiques et production de biens et services écosystémiques, AMAZ_BD) carried out by the Faculty of Environmental Sciences of the Technological University of Pereira (UTP).

Because the landscape of the study area has undergone intense transformation in recent years, the study aimed to associate the presence/absence of earthworm species with the qualities of habitat resulting from the different uses and intensities of use of land previously covered by rainforests.

Earthworm species of two genera—*Martiodrilus* Michaelsen, 1936 and *Periscolex* Cognetti, 1905—and two subgenera—*Martiodrilus (Cordilleroscolex)* and *Martiodrilus (Maipure)*—are described. To date these had been unreported in the Amazon basin and with only isolated registries in the Andean region by Righi (1995), who briefly described their habitat. A key for the *Periscolex* genus was also rebuilt, considering the need to train new taxonomists in Latin America (Brown & Fragoso 2007) and to update the information found in studies conducted by Righi (1995), Zicsi (1992, 2001, 2005), and Zicsi & Csuzdi (1997).

Methods

The landscape of the study region, located in the Colombian Amazon, predominantly consists of cattle ranches sown to natural and improved pastures and rubber (*Hevea brasiliensis*) plantations, with several patches of natural vegetation located at altitudes ranging from 224 to 302 m above sea level. Farm size ranged from 8 to 352 hectares.