



A new species of *Geoplana* (Platyhelminthes: Tricladida: Geoplanidae) from the Western Amazon Basin with comments on the land planarian fauna from Peru

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Abstract

Geoplana excelentissima sp. nov. is described from the east centre of Peru. This new species is very long (165 mm), broad and flat. The dorsal surface is black with five white stripes, and two marginal pinkish stripes with a blue inner surface. A unique combination of external and internal characters (*e. g.* the copulatory apparatus) is present in the new species. *Geoplana regia* and *Geoplana matuta*, species known from Brazil, have some affinities with respect to the copulatory apparatus. Additionally, we provide a list of all Geoplanidae species already described for Peru with new information on the distribution of some species through the revision of the Fundación Miguel Lillo Collection (Argentina).

Key words: *Geoplana excelentissima* sp. nov., *Geoplana regia*, *Geoplana matuta*, Geoplaninae, Peruvian Amazon

Introduction

Land planarians of Peru are very little known compared to the knowledge obtained on other areas of the Neotropical Region with a great biodiversity, such as southeastern Brazil. The knowledge of this group in Peru was mainly obtained from expeditions carried out by Dr. Wolfgang K. Weyrauch. He collected numerous specimens of land planarians, most of these in the mid-twentieth century. Most of this material was described by du Bois-Reymond Marcus (1951, 1953, 1957, 1958). Other species from Peru, collected by the Yale Peruvian Expedition in 1911, were described by Hyman (1955). The rest of the known species belong to other contributions (Meixner 1906; de Beauchamp 1939). Recently a new species from southern Peru was reported (Negrete *et al.* 2010), which increases to 34 the species described for this country.

Most of the land planarian species of Peru (~60%) belong to *Geoplana* Stimpson, 1857. This genus comprises some hundred species of Neotropical flatworms that have been additionally described from Argentina, Brazil, Chile, Colombia, Paraguay, Trinidad and Tobago, and Uruguay. Among the main features of *Geoplana* are the creeping ciliated sole broader than a third of body width, strong cutaneous longitudinal muscles, parenchymatic longitudinal musculature weak or absent, dorsal testes, penis papilla present and female canal entering to genital atrium dorsally (Ogren & Kawakatsu 1990).

In this paper, we describe a new species of the genus *Geoplana* from the Yuruá River Basin, western Peru. This basin rises in the department of Ucayali in Peru and runs into Brazilian territory. The Yuruá river is a tributary to the Solimões river (Brazil) in the Amazon Basin (Carvalho *et al.* 2009). This work has been conducted in the frame of Research Projects that have involved an inventory of vertebrate and invertebrate fauna in the Peruvian Amazon. It has included the study of the turbellarian diversity (Damborenea *et al.* 2005, 2011; Noreña *et al.* 2006 a, b). Also, we provide a brief revision of the diversity of Peruvian land planarians and we give new data about distribution of some species by means a revision of scientific collections.