A new species of *Supramontana* Carbayo & Leal-Zanchet (Platyhelminthes, Continenticola, Geoplanidae) from the Interior Atlantic Forest

LISANDRO NEGRETE\(^1,2\), ANA MARIA LEAL-ZANCHET\(^3\) & FRANCISCO BRUSA\(^1,2,4\)

\(^1\)División Zoología Invertebrados, Facultad de Ciencias Naturales y Museo, Universidad Nacional de La Plata, Paseo del Bosque s/n, La Plata, Argentina  
\(^2\)CONICET  
\(^3\)Instituto de Pesquisas de Planárias, Universidade do Vale do Rio dos Sinos, 93022-000 São Leopoldo, Rio Grande do Sul, Brazil  
\(^4\)Corresponding author. E-mail: fbrusa@fcnym.unlp.edu.ar

Abstract

*Supramontana argentina* sp. nov. (Platyhelminthes, Continenticola, Geoplanidae) from north-eastern Argentina is herein described. The new species differs from *Supramontana irritata* Carbayo & Leal-Zanchet, 2003 from Brazil, the only species of this genus so far described, by external and internal morphological characters. *Supramontana argentina* sp. nov. is characterized by having a colour pattern with a yellowish median band, thin para-median black stripes, and two dark grey lateral bands on the dorsal surface. The most outstanding features of the internal morphology are a ventral cephalic retractor muscle almost circular in cross section, prostatic vesicle extrabulbar, tubular and very long, and penis papilla conical and blunt with a sinuous ejaculatory duct.

Key words: triclads, land planarian, Geoplaninae, Argentina, Neotropical Region

Introduction

The taxonomy of land planarians (Geoplanidae) is mainly based on a combination of external morphological features and internal anatomical characters, mostly of the copulatory apparatus, which are revealed by histological techniques (Winsor 1998). Some aspects of the internal morphology, especially of the cephalic region, have not been considered by some researchers, and are therefore unknown in many species (Carbayo & Leal-Zanchet 2003). The importance of studying these structures for taxonomy purposes was previously suggested by CG Froehlich (1955) and EM Froehlich (1978). The taxon is not sufficiently known, thus current classification is in continuous change.

The genus *Supramontana* Carbayo & Leal-Zanchet, 2003 (Geoplaninae) was erected to include one species of land planarian with a certain cephalic muscular specialization. This flatworm species possesses a cephalic retractor muscle consisting of fibres of the ventral cutaneous longitudinal muscular layer sunk into the parenchyma (Carbayo & Leal-Zanchet 2003). The existence of a retractor muscle in the cephalic region has been reported in other Geoplaninae genera. However, *Supramontana* is distinguished from the rest of the current Geoplaninae by a combination of characters of the internal morphology, such as ventral longitudinal cutaneous musculature in two layers, sub-neural parenchymatic muscle layer along the body, presence of a (permanent) penis papilla, and common glandular ovovitelline duct horizontal and dorsal to the female atrium. This combination of characters precluded the authors from placing the species in any of the known genera of Geoplaninae. In this paper we describe a new species of *Supramontana* that inhabits the southern portion of the Interior Atlantic Forest in north-eastern Argentina.
Supramontana argentina sp. nov. differs externally from the type-species of the genus by its dorsal colour pattern. Supramontana irritata possesses a pale yellowish background with dark brown spots dispersed onto the dorsum which forms a distinct narrow median stripe and three pairs of narrow stripes, varying in intensity among specimens (Carbayo & Leal-Zanchet 2003). The new species shows a colour pattern with a striking yellow median band and one pair of black stripes on a dark grey background.

Regarding the internal morphology, both species have an extrabulbar and unpaired prostatic vesicle, with its proximal region rather straight and dilated, and a sinuous distal portion. In S. irritata the ejaculatory duct is a straight canal without openings of secretory cells in its epithelium, but in S. argentina sp. nov. this duct runs sinuously through the penis papilla and receives abundant secretion. The penis papilla is similarly shaped in both species, but it is pointed in S. irritata and blunt in S. argentina sp. nov. Also, the male atrium is only partially occupied by the papilla in S. irritata, whereas the papilla occupies the whole cavity of the male atrium in S. argentina sp. nov. The female reproductive system of S. argentina sp. nov. is similar to that of S. irritata, except for the common glandular ovovitelline duct, which is longer in S. irritata (~1 mm) than in S. argentina sp. nov. (about half of this length).

The finding of a second species of Supramontana consolidates the identity of this genus, reinforces the diagnosis of the genus provided by Carbayo & Leal-Zanchet (2003), and extends its distribution range along the Atlantic Forest.

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