



## Description of the larva of *Archilestes exoletus* (Hagen in Selys) (Odonata: Lestidae)

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### Abstract

The larva of *Archilestes exoletus* (Hagen in Selys, 1862) is described and illustrated based on exuviae of reared larvae collected in Cascavel, State of Paraná, Brazil. The larva of *A. exoletus* can be distinguished from other species of *Archilestes* of which the larva has been described by the absence of a lateral spine at the margin of the 4<sup>th</sup> abdominal segment and having the cleft of the ligula closed.

**Key words:** Zygoptera, immatures, morphology, systematics

### Introduction

*Archilestes* Selys is a Neotropical genus that includes 8 species (Lencioni 2005). Of these, only *Archilestes exoletus* (Hagen in Selys, 1862) is known in Brazil, in the states of Rio de Janeiro and Santa Catarina (Heckman 2008). According to Lencioni (2005), the genus is distinguished from *Lestes* by its wider quadrangle and the 3<sup>rd</sup> antenodal length. Of the species described, five are known in the larval stage: *A. californicus* (McLachlan), *A. latialatus* Donnelly, *A. grandis* (Rambur), *A. neblina* (Garrison) and *A. tuberalatus* Williamson (Novelo-Gutiérrez 1994, Ramírez 1994, De Marmels 2004). The objective of our study is to provide a record of *A. exoletus* for the state of Paraná, to describe the habitat in which the larvae were found, and to describe the last instar larva.

### Material and methods

The larvae were collected at the source of the Rio Cascavel, in Danilo Galafassi Municipal Park, Cascavel municipality, State of Paraná, Brazil, in May, 2006. At the collection sites the riparian vegetation is preserved and the dominant substrate on the stream bottom consists of flint and gravels. The larvae were associated with marginal macrophytes (Fig. 1).

Two specimens in the final stage were reared in the laboratory until the emergence of adults (1♂, 1♀), according to the methodology of Costa *et al.* (2004). The identification was determined based on adult characters presented by Donnelly (1981), Garrison (1982), Lencioni (2005) and Heckman (2008). Measurements (mm) were taken under an Olympus SZX16 stereoscopic microscope. Measurements were taken on both specimens, within the limits observed for the female and male represented respectively. The illustrations were prepared from photos taken with equipment attached to the stereoscopic and then enhanced using Adobe Illustrator CS3<sup>®</sup> software. The material is deposited in the collection of Universidade do Oeste do Paraná (UNIOESTE), in the campus of Cascavel, State of Paraná, Brazil. Abbreviation: S1-10 = abdominal segments 1 to 10.