

## Description of the final instar larvae of *Acanthagrion gracile* (Rambur) and *Acanthagrion lancea* Selys (Odonata: Coenagrionidae)

DANIELLE ANJOS-SANTOS<sup>1,3</sup>, CÉSAR CARRIÇO<sup>1,2</sup>, JANIRA MARTINS COSTA<sup>1</sup>  
& TATIANA CHRYSOSTOMO SANTOS<sup>1</sup>

<sup>1</sup>Museu Nacional, Universidade Federal do Rio de Janeiro, Departamento de Entomologia, Setor de Insetos Aquáticos, Quinta da Boa Vista, São Cristóvão 20940-040, Rio de Janeiro, Brazil

<sup>2</sup>Universidade Federal Rural do Rio de Janeiro, Instituto de Biologia, Programa de Pós-Graduação em Biologia Animal, BR 465, Km 7 23890-000 Seropédica, Rio de Janeiro, Brazil

<sup>3</sup>Corresponding author. E-mail: danielleanjos2@yahoo.com.br

### Abstract

The final instar larvae of *Acanthagrion gracile* and *A. lancea* are described and illustrated based on reared specimens from Rio de Janeiro and Espírito Santo States, Brazil, being compared with the other known larvae of this genus.

**Key words:** Odonata, Zygoptera, *Acanthagrion*, larva, Brazil, Neotropical Region

### Resumo

As larvas de último instar de *Acanthagrion gracile* e *A. lancea* são descritas e ilustradas com base em exemplares coletados nos Estados do Rio de Janeiro e Espírito Santo, Brasil sendo criadas até a emergência e comparadas com outras larvas conhecidas do gênero.

**Palavras chave:** Odonata, Zygoptera, *Acanthagrion*, imaturos, Brazil, Região Neotropical

### Introduction

The Neotropical genus *Acanthagrion* Selys is composed by 39 known species, distributed from South-Central United States (Texas) to Central Argentina (von Ellenrieder & Lozano 2008; Garrison *et al.* 2010). In Brazil, 22 of these species are recorded (Lencioni 2006). At present, the final larval instars of nine species have been described: *A. adustum* Williamson, *A. aepiolum* Tennessen, *A. apicale* Selys, *A. ascendens* Calvert, *A. fluviale* De Marmels, *A. hildegarde* Glöger, *A. indefensum* Williamson, *A. quadratum* Selys and *A. vidua* Selys (Geijskes 1941, 1943; De Marmels 1990, 1992, 2007; Muzón *et al.* 2001; Lozano *et al.* 2007; Novelo-Gutiérrez 2009).

*Acanthagrion gracile* (Rambur) is actually known from Bolivia, Brazil, Paraguay, Uruguay and Argentina, and *A. lancea* Selys from Ecuador, Peru, Brazil and Paraguay (Lencioni 2006). In this paper we describe the final larval instars of *A. gracile* and *A. lancea* based on reared specimens from Rio de Janeiro and Espírito Santo States, and compare them with the other known larvae of this genus.

### Methodology

The exuviae were preserved in 80% ethanol and adults were dried and preserved in envelopes. All drawings were made with the aid of a camera lucida attached to a stereoscopic microscope; measurements were made with the aid of a Starrett digital caliper. Larval mandibular formula follows Watson (1956). Abbreviations used: S1-10: abdom-