



## Description of a new species of *Neocordulia* Selys, 1882 (Odonata: Libellulidae, Corduliinae) from southern Brazil

J. M. COSTA<sup>1</sup>, C. T. RAVANELLO<sup>2</sup> & G. M. SOUZA-FRANCO<sup>3</sup>

<sup>1</sup>Departamento de Entomologia, Museu Nacional, Universidade Federal do Rio de Janeiro (UFRJ)

<sup>2</sup>Centro de Ciências Agro-Ambientais e de Alimentos, Programa de Pós Graduação em Ciências Ambientais, Universidade Comunitária Regional de Chapecó (UNOCHAPECÓ)

<sup>3</sup>Programa de Pós Graduação em Ciências Ambientais, UNOCHAPECÓ

### Abstract

*Neocordulia santacatarinensis* sp. n. is described and illustrated based on a reared male and its exuviae collected at Irani river, Ponte Serrada, Santa Catarina State, Brazil. Holotype is deposited in the Museu Nacional, Rio de Janeiro, Brazil.

**Key words:** Odonata, Libellulidae, Corduliinae, *Neocordulia* sp.n., larva, taxonomy, Brazil

### Introduction

The family Corduliidae is poorly known from the neotropical region with eight genera and 37 species (Costa & Santos 2000a, Machado 2005). Eleven belong to *Neocordulia*, seven of which occur in Brazil (Costa & Santos 2000b, Machado, 2005). St. Quentin (1939) considers Corduliinae a separate family from Libellulinae; Carle (1995) and Bechly (1996) treat Corduliidae as a distinct family. Garrison *et al.* (2006) treat Corduliidae as a subfamily within Libellulidae pending phylogenetic studies, and Libellulidae *s. l.* as comprising three subfamilies: Libellulinae, Macromiinae and Corduliinae defining them as follows:

Corduliinae: second crossvein between RP1,2 and IRP2 not oblique; tibial keels in male fore legs present; male S2 with auricles;

Libellulinae: second crossvein between RP1,2 and IRP2 developed as oblique vein; tibial keels in male fore legs absent; male S2 lacking auricles;

Macromiinae: posterior margin of compound eye with evagination delimited from rest of eye; distance between triangle and arculus about twice as long in FW than in HW; stiff setae at anterior corners of male anterior lamina present.

We treat Corduliidae as a distinct family until relationships among libelluline and corduliine genera are resolved.

A collecting trip to the Irani River, Ponte Serrada, Santa Catarina State, Brazil resulted in collection of several larvae of Libellulidae from which only one male of *Neocordulia* was reared to emergence, which differed from the other seven described species of *Neocordulia*. We describe *Neocordulia santacatarinensis* from southern Brazil. Male adult and exuviae are deposited in the Departamento de Entomologia, Museu Nacional, Universidade Federal do Rio de Janeiro.

### Methodology

Specimens were collected with Surber traps (0.90 m<sup>2</sup>; mesh 300 m) from shallow riffles. Illustrations 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. Photographs were taken with a "Sony Cybershot" digital camera with a