



Two new species of *Larsia* Fittkau, 1962 (Diptera: Chironomidae: Tanypodinae) from Neotropical Region, with a checklist of *Larsia* species of the world

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Abstract

Two new species of *Larsia* Fittkau, 1962 are described and figured as male, pupa and larva. Diagnosis to male of this genus is emended. An annotated checklist of the world's valid *Larsia* species is given and keys to pupae and larvae of known species in the Neotropical region are provided.

Key words: Brazil, immature stages, key, taxonomy

Introduction

Non-biting midges of the genus *Larsia* are small to minute dipterans with worldwide distribution, often found in ponds and the littoral zone of lakes. The genus belonging to Pentaneurini tribe was erected by Fittkau (1962) with *Ablabesmyia atrocincta* Goetghebuer (1942) as the type species. Prior to the present study *Larsia* comprised 18 described valid species (Table 1). The adult males are distinguished by the following combination of characters: presence of scutal tubercle, lyrate or comb-like tibial spurs in all legs and r-m and m-cu confluent (Murray & Fittkau 1989). Whereas, the thoracic horn with alveolar respiratory atrium is the diagnostic character for the pupae (Fittkau & Murray 1986). The larvae can be distinguished by having antenna 3.5 times length of mandible, with ring organ of basal segment near middle and inner apical margin of dorsomentum directed medially (Epler 2001).

The New World species of *Larsia* were described by several authors in all stages (Sublette 1964, Beck & Beck 1966, Bilyj 1984, Sublette & Sasa 1994, Serpa-Filho 2005), however a comprehensive revision of the genus is still not available. Based on specimens from the rainforest Amazon and the southeastern Brazil, two new species are described in all stages, and the generic diagnosis to male (Murray & Fittkau 1989) is emended. In addition, keys to the Neotropical pupae and larvae of known species of *Larsia* are provided.

Material and methods

The larvae were collected using a hand net in different aquatic systems in rainforest Amazon and the southeastern Brazil, and were reared individually in the laboratory to obtain the associated pupal exuviae and adults. Specimens examined were slide-mounted in Euparal, following the procedures outlined by Pinder (1983; 1986; 1989). Morphological terminology and abbreviations follow Sæther (1980), Kowalyk (1985) and Roback (1985). Measurement methods follows Epler (1988). Metrics are given as the value of the holotype [in brackets], followed by the range with the number of measured specimens in parenthesis if it differs from the number (n) stated at the beginning of the description. The key to larvae of *Larsia* species is an adaptation of key provided by Epler (2001). The material examined is deposited in the Reference Collection of Laboratório de Entomologia Aquática (LEA), Universidade Federal de São Carlos (UFSCar), São Carlos, Brazil.