A new species of *Rheocricotopus* Brundin from Mato Grosso, Brazil (Diptera: Chironomidae, Orthocladiinae)

*Andersen, T. & Mendes, H.F.*


On line version of this paper is available from:

A versão on-line completa deste artigo está disponível em:
http://www.biotaneotropica.org.br/v12n1/pt/abstract?article+bn01412012012

Received/ Recebido em 14/12/2011 -
Revised/ Versão reformulada recebida em 14/02/2012 - Accepted/ Publicado em 29/021/2012

ISSN 1676-0603 (on-line)
A new species of *Rheocricotopus* Brundin from Mato Grosso, Brazil
(Diptera: Chironomidae, Orthocladiinae)

Trond Andersen¹ & Humberto Fonseca Mendes²³

¹Department of Natural History, University Museum of Bergen,
University of Bergen, P.O. Box 7800, N-5020, Bergen, Norway. e-mail: trond.andersen@um.uib.no
²Centro de Ciências Naturais e Humanas – CCNH, Universidade Federal do ABC – UFABC,
Av. dos Estados, 5001, Bloco A, Torre 3, 6º andar, Bangu, CEP 09210-580, Santo André, SP, Brazil
³Corresponding author: Humberto Fonseca Mendes, e-mail: orthocladiinae@gmail.com

ANDERSEN, T. & MENDES, H.F. A new species of *Rheocricotopus* Brundin from Mato Grosso, Brazil

Abstract: *Rheocricotopus (Psilocricotopus) sirventorum* sp. n. is described and figured based on a male from Mato Grosso, Brazil. It is tentatively placed in subgenus *Psilocricotopus* Sæther as it has a triangular, subapical crista dorsalis and a rounded superior volsella. However, the new species apparently lacks acrostichals and has 40 dorsocentrals in 1-4 irregular rows.

Keywords: Chironomidae, Orthocladiinae, Rheocricotopus, Psilocricotopus, new species, Mato Grosso, Brazil, Neotropical region.

ANDERSEN, T. & MENDES, H.F. Uma espécie nova de *Rheocricotopus* Brundin do Mato Grosso, Brasil

Resumo: *Rheocricotopus (Psilocricotopus) sirventorum* sp. n. é descrita e ilustrada com base em um macho adulto do Mato Grosso, Brasil. A espécie é tentativamente colocada no subgênero *Psilocricotopus* Sæther por apresentar crista dorsalis subapical e triangular e volsela superior arredondada. Entretanto esta espécie nova aparentemente não possui acrostícis e apresenta 40 dorsocentrais em 1-4 fileiras irrégulares.

Palavras-chave: Chironomidae, Orthocladiinae, Rheocricotopus, Psilocricotopus, espécie nova, Mato Grosso, Brasil, região Neotropical.
Introduction

The genus *Rheocricotopus* Brundin, 1956 with 69 valid species, is known from all zoogeographical regions except Antarctica and Oceania. The genus is split in two subgenera, *Psilocricotopus* Sæther, 1985 with 46 species and *Rheocricotopus* s. str. with 23 species. The larvae are rheophilic on plants and stones in streams and rivers and are rarely found in the littoral zone of lakes (Cranston et al. 1983).

The genus has been reported repeatedly from the Neotropical Region. Spies et al. (2009) recorded larvae from Costa Rica, Cranston et al. (1989) an undescribed species from Puerto Rico, Ospina-Torres et al. (1999) larvae from Colombia, Roback & Coffman (1983) larvae from Peru, Prat et al. (2011) larvae from Ecuador and Peru, and Roque et al. (2007) and Trivinho-Strixino (2011) larvae from Brazil. Further, Wiedenbrug (2000) recorded pupal exuviae of a *Rheocricotopus* (*Psilocricotopus*) species from mountain streams in Rio Grande do Sul in Brazil. However, there is no described species from Central or South America, although *Spaniotoma* (*Trichocladius*) *brachypus* Edwards, 1931: 279, presently regarded as a generically unplaced valid species (see Spies & Reiss 1996) might belong to *Rheocricotopus*. This species was described based on a single female from Rio Pichileufu, Rio Negro State in Argentina and has a small humeral pit, few dorsocentrals and well developed squamal fringe (Edwards 1931).

Below we describe and figure a new species of *Rheocricotopus* based on a single male from Mato Grosso in Central-Western Brazil and place it tentatively in the subgenus *Psilocricotopus* as the gonostylus has a triangular, preapical crista dorsalis and the superior volsella is rounded (see subgeneric diagnosis in Sæther (1985)). However, the new species has 1-4 irregular rows of dorsocentrals.

Figures 1-3. *Rheocricotopus* (*Psilocricotopus*) *sirventorum* sp. n., male. 1) Tentorium, stipes and cibarial pump; 2) Thorax; 3) Wing.
**Figures 4-7.** *Rheocricotopus (Psilocricotopus) sirventorum* sp. n., male. 4) Basal one-third of tarsomere 1 of mid leg; 5) Tarsomere 5 of hind leg; 6) Hypopygium, dorsal aspect; 7) Hypopygium with anal point and tergite IX removed, dorsal aspect to the left and ventral aspect to the right.
and is apparently lacking acrostichals. Although the two subgenera are distinct in the immature stages, the difference is less clear in the adults. A proper placement in subgenus should thus await the discovery of larvae and pupae.

Material and Methods

The specimen was mounted on a slide in Canada balsam following the procedures outlined by Sæther (1969). The terminology follows Sæther (1980).

The holotype will be deposited in Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil (MZUSP).

**RHEOCRICTOPUS (PSILOCRICOTOPUS) SIRVENTORUM** sp. n. (FIGURES 1-7).

**Type material:** Holotype male, Brazil: Mato Grosso, Nova Xavantina, Fazenda Queté, córrego Cachoeira, 14° 32.817′ S and 52° 31.395′ W, 16.x.2007, light trap, L.C. Pinho et al. (MZUSP).

**Diagnostic characters:** The species can be separated from other members of the genus by having 40 dorsocentrals in 1-4 irregular rows and apparently no acrostichals.

**Etymology:** The species is named after Ana and Rafael Sirvent Berenguer, San Vicente, for all hospitality while the senior author was in Spain drawing this species.

**Description:** Male (n = 1). Total length 2.10 mm. Wing length 1.10 mm. Total length / wing length 1.92. Wing length / length of profemur 2.33.

**Coloration.** Dark brown, thorax dark brown without distinct pattern. **Head.** AR 1.07. Ultimate flagellomere 371 µm long. Temporal setae 5 including 3 outer verticals and 2 postorbitals. Clypeus with 16 setae. Tentorium, stipes, and cibarial papillae as in Figure 1. Tentorium 136 µm long, 23 µm wide. Stipes 120 µm long, 27 µm wide. Palp segment lengths (in µm): 30, 48, 68, 98, 163. Third palpomere with 16 setae. Tentorium, stipes, and cibarial pump as in Figure 1.

**Thorax** (Figure 2). Antepronotum with 5 setae. Dorsocentrals 40 in 1-4 irregular rows, acrostichals apparently absent, prealars 4, supraalar absent. Scutellum 136 µm long, 23 µm wide. Scutellum with 7 setae, uniserial.

**Wing** (Figure 3). VR 1.08. Costal extension 14 µm long. Brachiolum with 1 seta, R with 1 seta, remaining veins and cells bare. Squama with 3 setae.

**Legs.** Spur of fore tibia 39 µm long, spurs of mid tibia 14 µm and 8 µm long, spurs of hind tibia 34 µm and 14 µm long. Width at apex of fore tibia 32 µm, of mid tibia 32 µm, of hind tibia 34 µm. Comb with 11 setae, longest 38 µm, shortest 16 µm long. Tarsomere 1 of mid leg with 5 sensilla chaetica in basal one-third (Figure 4). Pulvilli as in Figure 5. Length and proportions of legs Tarsomere 1 of mid leg with 5 sensilla chaetica in basal one-third 34 µm. Comb with 11 setae, longest 38 µm, shortest 16 µm long. Width 8 µm long, spurs of hind tibia 34 µm and 14 µm long. Width 8 µm long, spurs of hind tibia 34 µm and 14 µm long. Width 8 µm long, spurs of hind tibia 34 µm and 14 µm long. Width 8 µm long, spurs of hind tibia 34 µm and 14 µm long. Width 8 µm long, spurs of hind tibia 34 µm and 14 µm long. Width 8 µm long, spurs of hind tibia 34 µm and 14 µm long.

**Hypopygium** (Figures 6-7). Tergite IX covered with microtrichia, with 2 marginal setae on each side of the anal point; laterosternite IX with 2 setae. Anal point subtriangular, 23 µm long, 8 µm wide at base; with 5 lateral setae. Phallapodeme 52 µm long, aedeagal lobe with small horse-shoe shaped sclerotization orally. Transverse sternapodeme strongly curved, 77 µm long, with distinct oral projections. Gonocoxite 159 µm long, with bare, plate-like and sclerotized, 34 µm long, 6 µm wide projection along inner margin, starting 24 µm above apex. Superior volsella rounded, plate-like and sclerotized, 50 µm long, 10 µm wide at its widest part, starting 91 µm above apex of gonocoxite. Gonostylus 70 µm long, with distinct, triangular subapical crista dorsalis; megaseta 9 µm long. HR 2.26. HV 2.98.

Biology and Distribution

The species was collected in a light trap situated near a small, fast flowing stream in southeastern Mato Grosso State in Brazil.

Acknowledgements

We are greatly indebted to Luiz Carlos Pinho, Florianópolis, for the loan of the specimen and to Patrick Ashe, Ireland, for information about the genus. Thanks are also due to FAPESP (11/50162-1) and the University Museum of Bergen for financial support.

References


http://www.biotaneotropica.org.br
Rheocricotopus (Psilocricotopus) sirventorum new species


Received 14/12/2011
Revised 14/02/2012
Accepted 29/02/2012