



***Limnophyes guarani* sp. n., a new hygropetric Orthoclaadiinae from southern Brazil (Diptera: Chironomidae)**

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Abstract

A new species of *Limnophyes* Eaton collected in the Corvo Branco Mountains in Santa Catarina State is described and figured, based on male and female adults, larva and pupa. The species groups with *L. griseata* (Edwards) and *L. bidumus* Sæther as the adults have a pronounced humeral pit with lanceolate setae and an additional group of lanceolate setae just posterior to anteprepronotum. The adults are, however, distinctly smaller, have a lower AR and have more lanceolate setae in the group just posterior to anteprepronotum than the two other species. The pupa can easily be separated from the pupa of *L. bidumus* as the anal macroseta is longer than the anal lobe. The larva lives hygropetric on vertical rock surfaces. A key to male adults of Neotropical *Limnophyes* is given.

Key words: taxonomy, Neotropical Region, immatures, key

Introduction

The genus *Limnophyes* Eaton, 1875, with about 90 species, has a worldwide distribution. The Holarctic and Afrotropical species were reviewed by Sæther (1990a), the Neotropical species by Sæther (1990b). Eight species of *Limnophyes* are listed for the Neotropical region (Ashe & O'Connor 2012), four of which were originally described by Edwards (1931) and redescribed by Sæther (1990b). Of the remaining four species, two were described by Sublette and Sasa (1994) from Guatemala; the third is an uncertain record of the cosmopolitan *L. minimus* (Meigen, 1818) from Juan Fernández Island in Chile, and the last is *L. gercinoi* (Oliveira, Messias & Santos, 1995), described as *Corytibacladius* by Oliveira *et al.* (1995) and redescribed by Mendes *et al.* (2007).

Below we describe a new *Limnophyes* species from the Santa Catarina State in southern Brazil. The larva was collected in the Corvo Branco Mountains, where it lives hygropetric on vertical rock surfaces.

Methods and terminology

Larvae were collected on rock surfaces with a thin layer of running water and reared in laboratory in small petri dishes with wet moss. The specimens were then preserved in alcohol and later mounted in Euparal following the procedure outlined by Sæther (1969). The general morphology follows Sæther (1980).

The holotype and paratype of the new species will be deposited in the Museu de Zoologia da Universidade de São Paulo (MZUSP).

Key to adult males of Neotropical *Limnophyes* Eaton

1. Lanceolate setae clustered in dorsal humeral pit and/or with lanceolate setae clustered just behind middle of anteprepronotum,

References

- Ashe, P. & O'Connor, J.P. (2012) *A World Catalogue of Chironomidae (Diptera). Part 2. Orthoclaadiinae (Section A & Section B)*. Irish Biogeographical Society & National Museum of Ireland, Dublin, 968 pp.
- Edwards, F.W. (1931) Chironomidae. In: *Diptera of Patagonia and South Chile II (5)*. Trustees of the British Museum, Natural History, London, pp, 233–331.
- Mendes, H.F., Andersen, T. & Pinho, L.C. (2007) *Corytibacladius* Oliveira, Messias & Santos, 1995, a junior synonym of *Limnophyes* Eaton, 1875 (Diptera: Chironomidae: Orthoclaadiinae). *Aquatic Insects*, 29, 4, 255–261.
<http://dx.doi.org/10.1080/01650420701411481>
- Oliveira, S.J., Messias, M.C. & Santos, A.R. (1995) A new genus and new species of Neotropical Orthoclaadiinae (Diptera, Chironomidae). In: Cranston, P.S. (Ed.), *Chironomids: From genes to ecosystems*. CSIRO, Melbourne, pp. 409–412.
- Sæther, O.A. (1969) Some Nearctic Podonominae, Diamesinae, and Orthoclaadiinae (Diptera: Chironomidae). *Bulletin of the Fisheries Research Board of Canada*, 170, 1–154.
- Sæther, O.A. (1975) Twelve new species of *Limnophyes* Eaton, with keys to Nearctic males of the genus (Diptera: Chironomidae). *The Canadian Entomologist*, 107, 1029–1056.
<http://dx.doi.org/10.4039/Ent1071029-10>
- Sæther, O.A. (1980) Glossary of chironomid morphology terminology (Diptera: Chironomidae). *Entomologica Scandinavica, Supplement*, 14, 1–51.
- Sæther, O.A. (1990a) A review of the genus *Limnophyes* Eaton from the Holarctic and Afrotropical regions (Diptera: Chironomidae, Orthoclaadiinae). *Entomologica Scandinavica, Supplement*, 35, 1–139.
- Sæther, O.A. (1990b) A revision of the Neotropical types described as *Spaniotoma* (*Limnophyes*) by Edwards 1931, with the description of *Edwardsidia* gen. n. (Diptera: Chironomidae). *Entomologica Scandinavica*, 21, 305–319.
<http://dx.doi.org/10.1163/187631290X00229>
- Sublette, J.E. & Sasa, M. (1994) Chironomidae collected in Onchocerciasis endemic areas in Guatemala (Insecta, Diptera). *Spixiana, Supplement*, 20, 1–60.