



## A new Neotropical species of the genus *Parochlus* Enderlein, 1912 (Chironomidae: Podonominae) and new distribution in Argentina

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### Abstract

Adults and immatures of *Parochlus carolinae* n. sp. are described and figured. The specimens were collected from a stream and a river in the pampasic hills system in the centre-northern part of the San Luis Province, Argentina. The adult male is distinct in having hairy eyes. The pupa differs from other known species of the genus by the structure of the thoracic horn and the arrangement of setae on the anal spurs. The distribution of the genus *Parochlus* Enderlein is widened from an austral Andean *Parochlus* proper zone to a subtropical zone with Brazilian fauna.

**Key words:** Diptera, Chironomidae, *Parochlus*, new species, semiarid stream, South America

### Introduction

The distribution of the subfamily Podonominae displays a fascinating pattern of distribution involving disjunctions and bipolarity at very different taxonomic levels. The concentration of the majority of the extant genera, species and primitive types is confined to the circumantarctic land areas (Brundin 1966).

The large genus *Parochlus* shows a wider distribution than any other genera of the subfamily due to *P. kiefferi* (Garrett, 1925) Brundin, 1966, which lives in the Holarctic region, comprising a broad belt across North America, Greenland and Europe, and an undescribed species of the *araucanus* group in the higher elevations of Costa Rica (Watson & Heyn 1992).

The present distribution of *Parochlus* in South America is in the Andean Subregion following the biogeographical schemes of Morrone (2001), where no fewer than 26 known species are living (Brundin 1966, Spies & Reiss 1996). It stands out as a “successful” genus because of its adaptation to different habitats, mainly mountain streams, cold springs and the uppermost course of their outflow (Brundin 1966).

This genus includes seven groups. The *araucanus* group comprises 16 species divided into 5 subgroups: *spinus*, *araucanus*, *trigonocerus*, *paupeatus* and *novaezelandiae*. Five of these species live in South America. The subgroup *araucanus* includes *P. araucanus* Brundin from South Andes, *P. bassianus* Brundin from Tasmania, *P. maorii* Brundin from New Zealand and *P. kiefferi* from North America, Greenland and Europe (Brundin 1966).

The purpose of this study is to describe the new species *Parochlus carolinae* as adult male, pupa and larva and to discuss its relationship with other members of the genus.

This new species belongs to the *araucanus* group. The adult male has an extremely narrow wing cell  $r_1$ , second palpal segment lacking thickened setae, a swollen basal portion of the gonostylus, a narrower gonostylus apical lobe compared to the subapical lobe and a very short apical lobe  $t$  seta, slender and weakly visible in dorsal view. The pupa has anal spurs without denticles and never directed straight outwards at right angles. The larva has a ringed third antennal segment. *P. carolinae* is a member of the *araucanus* subgroup.