

## A new species of *Coenosopsia* Malloch (Diptera, Anthomyiidae) from southern Brazil and a reappraisal of the cladistic relationships of the genus

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### Abstract

A new species of *Coenosopsia* Malloch (Diptera, Muscidae), *C. albuquerquei* Bortolanza and Carvalho, **sp. nov.**, is described from Telêmeço Borba, in the state of Paraná, southern Brazil. With this new species included, a cladistic re-analysis of the genus was performed, using the data matrix of Nihei and Carvalho (2004). Results of this analysis suggest a close relationship between *C. albuquerquei* and *C. ferrari*. This clade is the sister-group of the other *Coenosopsia* species: (*C. prima* (*C. brasiliensis*, *C. peruviana*) (*C. michelseni* (*C. floridensis*, *C. mexicana*))). Biogeographically, the vicariant events previously proposed for South America support the evolutionary history of this genus. Additionally, we discuss the possibility that *C. michelseni* and *C. ferrari* were not always restricted to the “cerrado” of central Brazil.

**Key Words.** Anthomyiidae, biogeography, *Coenosopsia*, taxonomy

### Introduction

*Coenosopsia* Malloch is a New World genus of Anthomyiidae comprising seven described species. Distributed from southern North America to southeastern South America (Michelsen 1991; Nihei & Carvalho 2004), this genus was recently revised by Nihei and Carvalho (2004). Phylogenetic and biogeographical hypotheses were proposed for the evolution of *Coenosopsia*. Two major groups (clades) within the genus *Coenosopsia* were found in a cladistic analysis: a small, two-species, clade with *C. brasiliensis* Michelsen and *C. ferrari* Nihei and Carvalho, and a larger clade with *C. peruviana* Michelsen, *C. prima* Malloch, *C. michelseni* Nihei and Carvalho, *C. floridensis* Michelsen and *C. mexicana* Michelsen.