



## New species of Neotropical *Melanagromyza* Hendel (Diptera: Agromyzidae) from Asteraceae flower heads

MARINA REITER BRAUN<sup>1,2</sup>, ANGELO PIRES DO PRADO<sup>3</sup> & THOMAS MICHAEL LEWINSOHN<sup>1</sup>

<sup>1</sup> Laboratório de Interações Insetos-Plantas, Depto. Biologia Animal, Universidade Estadual de Campinas, C. postal 6109, CEP 13083-970

<sup>2</sup> Graduate Program in Ecology, Instituto de Biologia, Universidade Estadual de Campinas

<sup>3</sup> Departamento de Parasitologia, Universidade Estadual de Campinas, C. Postal 6109, CEP 13083-970  
E-mails: marinareiter@gmail.com (corresponding author), aprado@unicamp.br; thomasl@unicamp.br

### Abstract

Agromyzids are well documented on plants of economic importance, especially those species whose larvae leave external marks on the plant, such as mines. They are far less known for non-commercial plants, particularly in tropical countries. In North American compilations of agromyzids, most of the species associated with Asteraceae flower heads belong in the genus *Melanagromyza* Hendel. Here we record five new seed-eating *Melanagromyza* species from the Brazilian Cerrado in the state of São Paulo: *M. falciformis* sp. nov., *M. lanciformis* sp. nov., *M. longomembranacea* sp. nov., *M. multivora* sp. nov. and *M. vernoniaevora* sp. nov.

**Keywords:** Agromyzidae, seed-eaters, Brazilian Cerrado, taxonomy, insect-plant interactions

### Resumo

Agromizídeos são bem documentados em plantas de importância econômica, mas pouco conhecidos em plantas não comerciais, especialmente nas regiões tropicais. As espécies mais estudadas são aquelas cuja herbivoria causa danos aparentes nas plantas, como as de larvas minadoras. A grande maioria das espécies de agromizídeos listada em levantamentos na América do Norte é do gênero *Melanagromyza* Hendel. No presente trabalho realizamos a descrição de cinco novas espécies de *Melanagromyza* endófagas de capítulos de Asteraceae de cerrado do estado de São Paulo, Brasil: *M. falciformis* sp. nov., *M. lanciformis* sp. nov., *M. longomembranacea* sp. nov., *M. multivora* sp. nov. e *M. vernoniaevora* sp. nov.

**Palavras chave:** Agromizídeos, endófagos de capítulos, cerrado, taxonomia, interações inseto-planta

### Introduction

Agromyzidae (Diptera: Cyclorrhapha) is a large and worldwide fly family with approximately 2,860 known species (Scheffer *et al.* 2007). The agromyzid family is comprised exclusively of phytophagous flies whose larvae develop inside host-plant organs as strictly endophagous herbivores (Spencer 1990). Agromyzids are frequently called “leaf miner flies” because circa 80% of known agromyzid species feed within the leaf lamina in their larval stage (Spencer 1990); however, many species whose larvae feed cryptically inside plant organs are likely to be still undetected or undescribed.

Agromyzids are well documented for plants of economic importance (Spencer 1973, 1990) but far less known for non-commercial plants, especially in tropical countries. Association records between Agromyzidae