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A new species of *Japanagromyza* Sasakawa (Diptera: Agromyzidae) from the Brazilian Amazon with notes on biology

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Abstract

Japanagromyza sasakawai sp. n. is described from the Brazilian Amazon, based on the male, female, third instar larva and puparium. This species is a leaf-miner of *Terminalia catappa* L. (Combretaceae), which is an introduced plant from the Old World tropics used in Brazil as an ornamental. The male aedeagus of *J. sasakawai* sp. n. differs from other species mainly in having the mesophallus covered with many spine-like processes. This is the third record of *Japanagromyza* Sasakawa in Brazil and first in the Brazilian Amazon. The key to Neotropical species of *Japanagromyza* by Sousa & Couri (2014) is modified to include this new species.

Key words: Acalyptratae, fly, leaf-miner, taxonomy, Brazil

Introduction

Agromyzidae is a widely distributed and diverse family which includes about 3,017 species in 41 genera (Pape *et al.* 2011). Only 149 species in 14 genera have been recorded from Brazil (Amorim *et al.* 2002). These figures are likely to be underestimates of the Brazilian fauna, since there are few collections specialized in these flies or people studying them in Brazil. In spite of considerable efforts in the study of Neotropical Agromyzidae (*e.g.* Boucher 2010; Esposito & Prado 1993; Etienne & Martinez 1996, 2003; Martinez & Etienne 2002; Sanabria de Arévalo 1994; Sasakawa 1992a, 1992b, 2005; Spencer 1963, 1973, 1982, 1984; Valladares 1981, 1998a, 1998b), knowledge of the Brazilian fauna, especially from the Amazon, is scanty and many species remain unnamed.

The genus *Japanagromyza*, once believed to be endemic to Japan (Sasakawa 1958), comprises about 80 species with a worldwide distribution and about 30 species in the neotropics (Martinez & Etienne 2002, Sasakawa 2005, Boucher & Hanson 2006). Even though it is a species-rich and widely distributed genus, only two species of *Japanagromyza* have been recorded from Brazil: *J. inferna* Spencer and *J. macroptilivora* Esposito & Prado. *Japanagromyza inferna* has been recorded from Caribbean Islands (Bahamas and Guadeloupe) and Brazil (Rio de Janeiro), and *J. macroptilivora* only from Southern Brazil (São Paulo) (Sousa & Couri 2014; Esposito & Prado 1993).

Most species of *Japanagromyza* are leaf-miners and very few are gall-inducers, mainly in plants of the family Fabaceae. However, some species are associated with Rosaceae, Loranthaceae, Elaeagnaceae, Fagaceae, Brassicaceae, Euphorbiaceae, Myrtaceae, Polygonaceae, Salicaceae and even Orchidaceae (Spencer 1974, Benavent-Corai *et al.* 2005, Boucher 2010, Sasakawa 2010). In this paper, we describe a new species of *Japanagromyza* leaf-miner of the introduced *Terminalia catappa* L. (Combretaceae) in the Brazilian Amazon.

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