

## Citrus Gall Midge, *Prodiplosis longifila* Gagné (Insecta: Diptera: Cecidomyiidae)<sup>1</sup>

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### Introduction

The citrus gall midge, *Prodiplosis longifila*, Gagné was first found in Florida by Rainwater (1934). This gall midge was collected on lime trees, *Citrus aurantifolia* (Christm.) Swingle, at Homestead, Dade Co., Florida during the fall of 1984 by the senior author. The adult was described in 1986 by R.J. Gagné.

### Distribution

Gagné (1986) reported *P. longifila* from Florida, South America, and the West Indies.

### Description

The adult midge is a small, black-yellowish fly about 1.5 mm in length. The wing lengths average 1.42 mm in males and 1.53 mm in females. The antenna lengths average 1.62 mm in males and 1.22 mm in females. The eggs are small, clear, about 0.27 mm in length. The larva is almost transparent when newly formed and yellowish during the last instar. A full grown larva is about 1.9 mm in length. The pupa

is light yellowish when newly formed and black and yellowish near adult emergence. Eggs hatch in one to two days. Larval development requires eight to 12 days. The larvae drop to the ground where the pupal stage is passed. The pupal stage lasts four to five days, and adults typically live 1-2 days. Gagné (1986) has provided a key to adults of Nearctic species of *Prodiplosis*.



**Figure 1.** Eggs (upper right), larva (lower left), pupa (lower right) and adult (upper left) citrus gall midge *Prodiplosis longifila* Gagné. Credits: Rita Duncan, University of Florida

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## Host Plants

This insect is known from limes, *Citrus aurantifolia*; tomatoes, *Lycopersicon esculentum*; potatoes, *Solanum tuberosum*, and wild cotton, *Gossypium* sp., etc.

## Damage

The larva of *P. longifila* is a pest of limes (Pena et al. 1987). In 1984, heavy infestations were encountered attacking lime groves in Dade and Collier counties. Larvae feed on flowers, damaging the epidermal cells of the ovary, pistils, and stamens. The mean number of larvae found per flower was 24.26.

## Survey and Detection

Look for flowers with necrosed ovary, stamens, and petals. Where infestations are heavy there may be excessive flower drop.

## Management

Control information is very limited for this pest. If control appears to be necessary contact your local county Cooperative Extension Service Agent.

## Selected References

Gagné, R.J. 1986. Revision of *Prodiplosis* (Diptera: Cecidomyiidae) with description of three new species. *Annals of the Entomological Society of America* 79:235-245.

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