

Research Note

FIRST REPORT OF MANGO BLOSSOM MIDGE GEPHYRAULUS MANGIFERAE (FELT) (DIPTERA: CECIDOMYIIDAE) IN PUERTO RICO^{1,2}

Irma Cabrera-Asencio³, Lydia I. Rivera-Vargas⁴ and Alberto L. Vélez⁵

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We report the presence of *Gephyraulius mangiferae* (Felt) (Diptera: Cecidomyiidae) in Puerto Rico on mango, *Mangifera indica* L. (Sapindales: Anacardaceae). *Gephyraulius mangiferae* was described by Felt in 1927 with the name *Dasyneura mangiferae* in India (Prasad, 1971). The insect has also been reported in Hawaii in the same crop (Anonymous, 1981). In 2004 came the first report in the Americas, from Guadeloupe, French West Indies (Gagné and Etienne, 2006). During 2008, *G. mangiferae* was found infesting mango inflorescences in the germplasm collection of the Agricultural Experiment Station in Juana Díaz, Puerto Rico. Voucher specimens, P.R. Acc. 4-2008, were deposited in the Museum of Entomology and Tropical Biodiversity, Agricultural Experiment Station, University of Puerto Rico, Río Piedras, Puerto Rico.

According to Gagné and Etienne (2006), the adult of this gall midge has eyes nearly contiguous at vertex; vertex of occiput is rounded. Its antenna had from 11 to 13 flagellomeres with scape and pedicel spheroid (Figure 1B). Scutum has two lateral and two dorsocentral rows of setae mixed with scales. Wing length is 1.3 to 1.5 mm for males and females, respectively. In the wing, R₅ meets C appreciably anterior to wing apex; C broken at juncture with R₅, Cu forked. The pupa has a cephalic sclerite with two raised bumps (Figure 1A). The third instar larva is yellow orange. Larva was a blossom feeder; androgynous and hermaphrodite buds are equally infected. Eggs are laid either between bud petals and sepals or inside bud cavity. The larvae hatch inside the buds and feed on anthers, stamens, pistils, ovaries and discs (Prasad, 1971). Infected buds usually fail to open (Figure 1 C). Venkatsubba (1940) mentioned that this midge can attack from 60 to 70% of buds in mango in India. In Puerto Rico we observed damage in different varieties: Haden, Pascual, Keitt, Julie, Parvin, Irwin, Davis Haden, Ruby, Kent and Sensation. Additional observation of the mango orchards at the Agricultural Experiment Station in Juana Díaz, Puerto Rico, is in progress to evaluate the extent of damage of *G. mangiferae* and its possible economic impact.

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³Professor, Dept. of Crops and Agroenvironmental Sciences, Agricultural Research Station HC-04 Box 7115, Juana Díaz, P.R. 00795; e-mail: irma@eea.uprm.edu.

⁴Professor, Dept. of Crops and Agroenvironmental Sciences, Mayaguez Campus, Mayaguez, P.R. 00681, E-mail address: lyrivera@uprm.edu.

⁵Associate in Research. Agricultural Research Station, Juana Díaz, P.R.

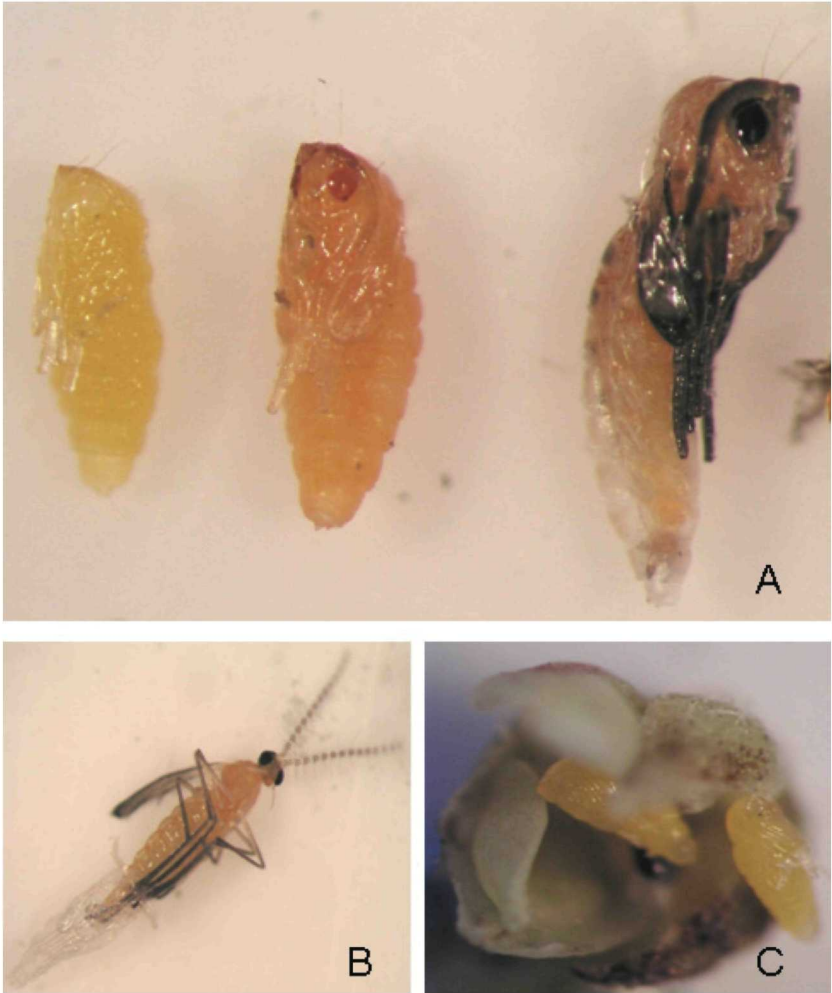


FIGURE 1. *Gephyraulius mangiferae*. a) pupa stages; b) adult and antenna; c) buds of mango infected.

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