



FIRST HOST PLANT RECORD FOR *ANASTREPHA AMPLIATA*  
HERNÁNDEZ-ORTIZ, 1990 (DIPTERA: TEPHRITIDAE)

PRIMER REPORTE DE PLANTA HOSPEDERA PARA *ANASTREPHA*  
*AMPLIATA* HERNÁNDEZ-ORTIZ, 1990 (DIPTERA: TEPHRITIDAE)

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The fruit flies of the Tephritidae family, represent one of the most important agricultural pests in the world, besides causing a great economic impact due to losses in a great diversity of fruits and other vegetables limit the development of agriculture in many countries and are the direct cause of a considerable number of quarantines and restrictions imposed by the importing countries, causing a detriment in the economy of fruits producing countries (Antonio-Hernández and García-Ramírez, 2017). However, in Mexico the knowledge of its hosts is generally restricted to *Anastrepha* species of economic importance, while studies on the relationship of other species of this genus with their host plants are poorly understood.

*Anastrepha ampliata* it's a species that belongs to the fraterculus group, described with specimens from Mexico and Guatemala (Hernández-Ortíz, 1990). In Mexico, it is distributed in tropical zones with warm climates in the states of Campeche, Chiapas, Jalisco, Quintana Roo and Yucatan (Hernández-Ortíz, 2007). It's a species commonly collected in the Yucatan Peninsula in multilure traps, and before the publication of this note, the aspects of its biology remained unknown.

The fruit collection was carried out in the month of July 2017, in the community of "El Ramonal", which belong to the municipality of Escarcega, Campeche (18°36'24.30"N 90°44'04.06"W) in an ecosystem belonging to subperennifolia medium forest. Ripe fruits of *Vitex gaumeri* Greenm (Verbenaceae) were collected directly from the ground; the botanical material was placed in a plastic container (20 x 30 cm) and transported to the entomology laboratory of the Escuela Superior de Ciencias Agropecuarias, Universidad Autónoma de Campeche (ESCA-UAC). A total of 72 fruits were collected, weighed in an analytical balance (LG-A, Mod. 501A) and dissected. Fruits had an average of 5.9 g, and a total weight of 425 g. A total of 28 larvae were found feeding on the mesocarp of 25 fruits, 22 of them had one larva and in three fruits were found two. Larvae were placed in a transparent plastic pupation chamber of cylindrical shape (15 cm in diameter x 30 cm high) a 10 cm thick vermiculite layer was added as substrate to favor the pupation and finally, the upper part was covered with a fine mesh cloth to allow aeration.

One week later (July 24), the pupation chamber was inspected, and 16 pupae were recovered and placed individually in small plastic containers 5x5 cm and checked daily until the adults emerged. Between August 8 and 9, seven specimens of *A. ampliata* emerged (five females and two males), which were left in the pupation vessels for 24 hours, to complete their morphological development. The specimens obtained were identified by Enrique Antonio-Hernández, placed in plastic microvials (4x0.5 cm) containing alcohol (70%) and deposited in the entomological collection of the ESCA-UAC.

*Vitex gaumeri* is a tree of unknown origin, locally called in the Yucatan peninsula and Central America by the name of Yax-nik (Benavides, 1994), it is used in traditional medicine (leaves), has a use as timber, a height between 25-30 m, light brown bark, flowers (4-5 mm long) in blue-violet clusters and green fruits (1-2 cm wide), rounded, and sweet tasting.

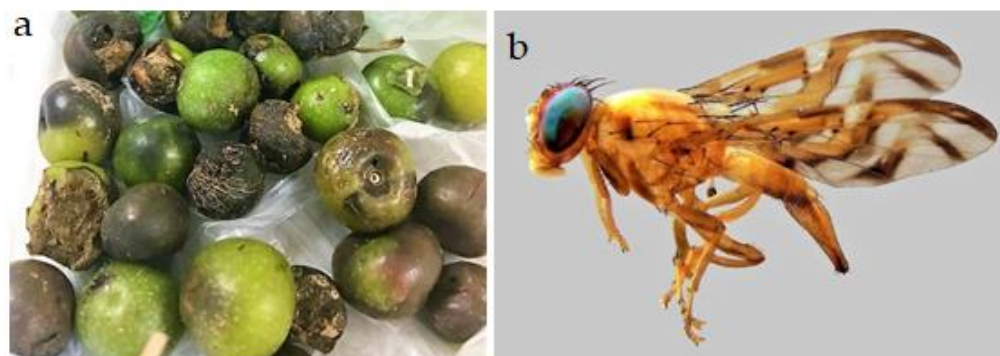


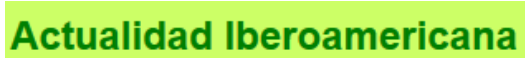
Fig. 1. a) Infested fruits of *V. gaumeri*, b) female specimen of *A. ampliata* emerged from fruits, lateral view.

Prior to this report, *V. gaumeri* had not been reported as feeding plant for the genus *Anastrepha*, however, some species of Verbenaceae have been reported as a host plant of this genus, such is the case of *Anastrepha amita* Zucchi that in Brazil has as a host plants two species of the genus *Citharexylum*; *Citharexylum myrianthum* Cham (Souza-Filho et al. 1999) and *Citharexylum poeppigii* Walp. (Marsaro et al., 2010), likewise, this species has been found infesting *Duranta erecta* (Custodio et al., 2016); on the other hand, like the previous species, *Anastrepha distincta* has been reported feeding during its larval stage on *C. poeppigii* Walp (Marsaro et al, 2010); and recently, *Anastrepha durantae* Norrbom was described from specimens obtained in fruits of *Duranta peruviana* Moldenke in Peru (Norrbom et al., 2015). With the present report, there are five known of Verbenaceae species, included in three genera, which are used as feeding plants of four *Anastrepha* species belonging to the fraterculus group.

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