

## West Indian Flatid Planthopper, *Melormenis basalis* in Florida (Hemiptera: Flatidae)<sup>1</sup>

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**INTRODUCTION:** West Indian flatid planthopper (*Melormenis basalis* (Walker 1851)) (Fig.1) was found in Florida for the first time in Miami-Dade County in 1997 by Florida Department of Agriculture and Consumer Services, Division of Plant Industry (DPI) inspector James R. Martin. The species was known previously only from Puerto Rico and the Leeward Islands (Fennah 1965) and Hawaii (Florida State Collection of Arthropods (FSCA) specimens from 1988). This species is established in southern Florida and now is known from Broward, Palm Beach, Martin, Collier, Hendry and Lee counties. There is no record from Monroe County, but the species presumably occurs there. The species is known to DPI inspectors as “Puerto Rican planthopper.”



**Fig. 1:** *Melormenis basalis* (Walker). Photography credit: Lyle J. Buss, University of Florida.

There is some confusion surrounding the scientific name of this bug. Originally, it was described as *Cicada quadripunctata* Fabricius 1794; however, Kirkaldy (1909) discovered that there was another species with the same name: *Cicada quadripunctata* De Villers 1789, and De Villers' (1789) use of the name predates Fabricius (1794). By 1909, the genus had become *Ormenis*, but the problem in the original genus (*Cicada*) rendered the species name *quadripunctata* invalid. Thus, Kirkaldy (1909) proposed a new name, *Melormenis antillarum* Kirkaldy for the bug (Metcalf 1957, p 329-332). Later, it was discovered by Fennah (1965) that *M. antillarum* was the same insect as *Flatoides basalis* Walker 1851. Walker's (1851) name predates Kirkaldy's (1909), so the correct name became *Melormenis basalis* (Walker 1851). To further confuse the issue, there was also a *Melormenis basalis* Caldwell 1951, also from Puerto Rico. It was moved to the genus *Capistra*, also by Fennah (1965). Since the move of Caldwell's *M. basalis* to *Capistra* precedes the transfer of Walker's *F. basalis* to *Melormenis* (by half a page of text!), there is no homonym problem according to Fennah (1965), but also see comments by Bartlett (2014).

**DESCRIPTION:** West Indian flatid planthoppers are about 6 mm long. They are brown, with a dusting of gray wax. They look quite similar to *Metcalfa pruinosa* (Say), but the spots on the wing are different (Fig. 2). In *M. pruinosa*, the spots form a triangle, and the clavus is free of spots (Mead 1969, republished 2004). The spots on the wing of *M. basalis* form a line, and the top spot is on the clavus (Fig. 1).

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**Fig. 2:** *Metcalfa pruinosa* (Say). Photography credit: Lyle J. Buss, University of Florida.

**LIFE HISTORY:** West Indian flatid planthoppers complete their life cycle on various plants. Nymphs are arrowhead-shaped and covered with wax. As is characteristic of flatid planthoppers, the posterior end of the nymph has large wax glands that produce tufts of wax that protrude from the back of the insect. Mixed colonies with other species of flatid planthoppers are common, so diagnosis of the nymphs can be problematic.

**DISTRIBUTION:** This species is known currently from Puerto Rico, the Leeward Islands of the Caribbean Lesser Antilles, Florida and Hawaii (Bartlett 2014; Bourgoin 2014).

**HOSTS:** West Indian flatid planthoppers have a wide host range, especially as adults. Fennah (1965) reported only *Acacia* sp. (Fabaceae) and *Coccoloba uvifera* (L.) L. (Polygonaceae) as hosts, but in Florida we have found immature stages of the insects on *Chrysobalanus icaco* (L.) L. (Chrysobalanaceae), *Eugenia uniflora* (Myrtaceae), and *Podranea ricasoliana* (Tanfani) Sprague (Bignoniaceae), and we have hand collected adult specimens from 32 other plant species, representing 20 plant families in total. Adults were collected from several crop plants, including cotton (*Gossypium* sp.), citrus (*Citrus* spp.), mango (*Mangifera indica* L.), fig (*Ficus carica* Linnaeus, Sp. Pl. 1059. 1753), papaya (*Carica papaya* Linnaeus, Sp. Pl. 1036. 1753), and mustard (*Brassica juncea* (L.) Czern.). The species is recorded from coffee (*Coffea arabica* L.) in Hawaii (Fukada and Jones 2011).

**SURVEY AND DETECTION:** West Indian flatid planthoppers are found on the stems of many different plants. Often the colonies are surrounded by white wax produced by the insects. No damage has been observed except the wax and some honeydew and accompanying sooty mold. Adults of this species also are common on sticky boards used for fruit fly trapping.

**CONTROL:** Consult local University of Florida Extension offices for control of West Indian flatid planthoppers. In most cases, control will not be needed. This species is not known to transmit any plant pathogens, but no transmission testing has been done.

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