

The bandedwinged whitefly, *Trialeurodes abutilonea*, in Florida (Homoptera: Aleyrodidae: Aleyrodinae)¹

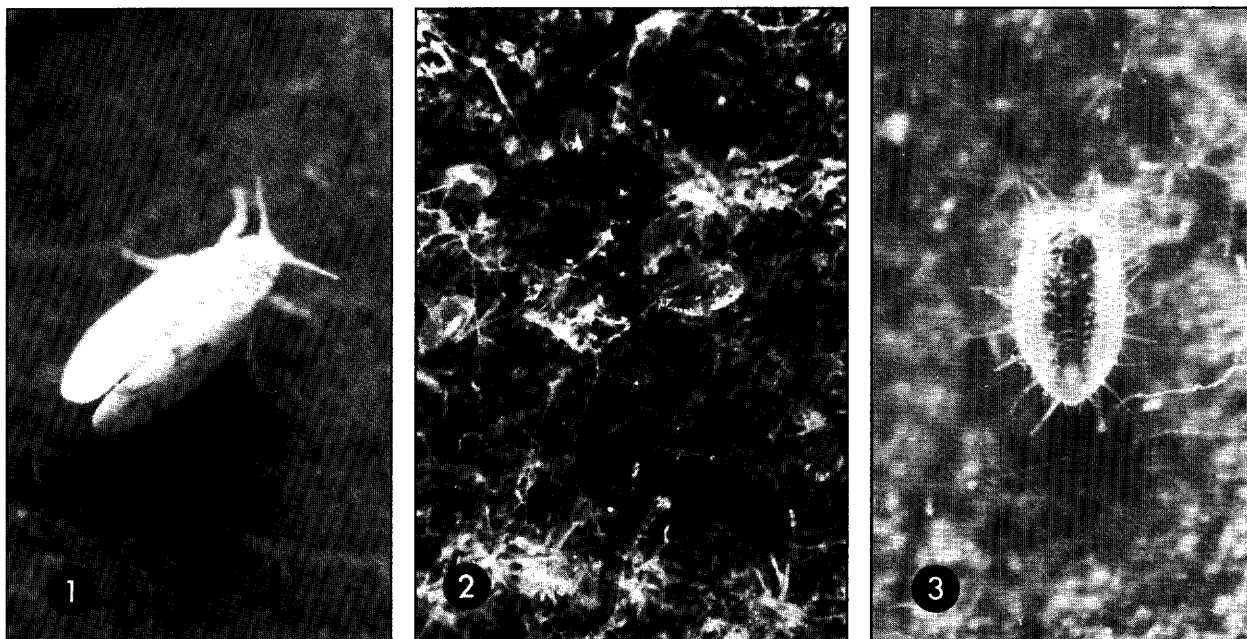
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INTRODUCTION: The bandedwinged whitefly was described as *Aleurodes abutilonea* Haldeman, 1850 from *Sida* (*Abutilon*) *abutilon* collected in Pennsylvania. The known synonyms were given by Russell (1948) and Mound and Halsey (1978). Records of this whitefly in Florida date back to Quaintance (1899), who described the synonym *Aleurodes rolfsii* from specimens sent to Prof. P.H. Rolfs on a cultivated geranium in South Florida. At that time it was considered a severe pest on geranium (Quaintance, 1899). Presently, bandedwinged whitefly is an occasional economic pest of some ornamental plants in Florida.

DESCRIPTION: The adult bandedwinged whitefly (Fig. 1) is pale yellow with a tinge of green on the thorax. The front pair of wings have 2 irregular zigzag smoky-grey lines transversely across each wing. When the wings are folded these zigzag lines appear continuous from wing to wing (Quaintance, 1899). The hind pair of wings are without bands. With the exception of the banded front wings, the adult is very similar to the greenhouse whitefly, *Trialeurodes vaporariorum* (Westwood).

Eggs are usually placed irregularly (Fig. 2), but at times are placed in neat circles. Newly deposited eggs are pale yellow and turn pale pink just before hatching (Garman and Jewett, 1922). When the mobile first instar settles down it begins to secrete a wax fringe which will become the vertical side walls of the so-called pupal case (4th instar skin). As growth and molts of the nymphs occur they will secrete a marginal fringe of translucent wax filaments, and the dorsal medial area of the integument turns brown (Fig. 3). This dark area in the dorsal integument readily distinguishes *T. abutilonea* from *T. vaporariorum* (Garman and Jewett, 1922).

HOST PLANTS: Originally described from velvetleaf, *Abutilon theophrasti* Medic. (Syn. *Sida abutilon* L.), but is now considered a polyphagous feeder. Some common weed hosts are *Ambrosia*, *Bidens*, and *Sida*. The most frequent ornamental hosts in Florida are *Hibiscus* spp.



Figures 1-3. *Trialeurodes abutilonea* (Haldeman). 1) adult. 2) eggs and nymph. 3) nymph. Photographs by Jeff Lotz, DPI.

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DISTRIBUTION: Arizona, California, Colorado, District of Columbia, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, New Mexico, New York, North Carolina, Pennsylvania, South Carolina, Texas, Utah, and Virginia. In northern areas this whitefly survives the winter only in greenhouses, but in warmer areas lives outdoors on weed hosts.

DAMAGE: Infested plants become chlorotic and unthrifty from sap removal. Honeydew and sooty mold also detract from the aesthetics of the crop.

LITERATURE CITED:

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