

Pest Alert

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Florida Department of Agriculture and Consumer Services, Division of Plant Industry
Charles H. Bronson, Commissioner of Agriculture

The Fig Whitefly *Singhiella simplex* (Singh) (Hemiptera: Aleyrodidae): A New Exotic Whitefly Found on Ficus Species in South Florida

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INTRODUCTION: Specimens of the fig whitefly, *Singhiella simplex* (Singh) (Hemiptera: Aleyrodidae), were recently collected from *Ficus benjamina* L. by Henry Mayer (UF-IFAS, Miami-Dade County Extension agent) and Ernie Martin (homeowner). This find was thought to be the first find of this whitefly for the Continental United States. However, an earlier sample collected by FDACS/DPI inspector Keith Richardson on August 3, 2007 on *Ficus benjamina* was initially misidentified. Upon further review of the slide, the identity of this whitefly was determined to be *Singhiella simplex* and should be considered as a US CONTINENTAL RECORD.

DESCRIPTION: Infestations of fig whitefly are easy to locate on *Ficus benjamina*, as infested plants with severe infestations will appear to be dropping or “shedding” many of their leaves and may appear defoliated (Figs. 1, 2). If the foliage is disturbed, there will be small clouds of tiny white, gnat-like adult whiteflies flying from the foliage. The body of the adult whitefly is yellow in color and the wings are white with a faint grey band towards the middle of the wing (Fig. 3). Immature stages (eggs, nymphs and pupae) can be found on the underside of the leaves. The pupae are small tan to light green discs with red eyes (Fig. 4) measuring about 1.3 mm long and 1 mm wide.

BIOLOGY: There is little literature on the biology of the fig whitefly. In Florida, the life cycle may be similar to that of the other *Singhiella* species that are present in Florida (*Singhiella citrifolii* (Morgan)), with at least three generations per year.

HOSTS: **Moraceae:** *Ficus altissima* Blume, *Ficus bengalensis* L., *Ficus benjamina* L., *Ficus racemosa* L.

ECONOMIC IMPORTANCE: *Singhiella simplex* is reported as a pest of *Ficus* species in India.

NATURAL ENEMIES: *Encarsia tricolor* Foerster (Hymenoptera: Aphelenide)

DISTRIBUTION: Burma, China and India

FLORIDA DISTRIBUTION: Miami-Dade County

SELECTED REFERENCES:

- David, B.V. and T.R. Subramaniam. 1976. *Studies on some Indian Aleyrodidae. Records of the Zoological Survey of India.* 70: 133-233.
- Dubey, A.K. and R. Sundararaj. 2005. *A taxonomic study of the genus Pealius Quantaince & Baker (Homoptera: Aleyrodidae) in India. Journal of the Bombay Natural History Society.* 102 (2): 162-165.
- Jesudasan, R.W.A. and B.V. David. 1991. *Taxonomic studies of Indian Aleyrodidae (Insecta: Homoptera). Oriental Insects* 25: 231-434.
- Martin, J. and L. Mound. 2007. *An annotated list of the world's whiteflies (Insecta: Hemiptera: Aleyrodidae). Zootaxa* 1492 : 1-84.



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Singh, K. 1931. *A contribution towards our knowledge of the Aleyrodidae (Whiteflies) of India. Memoirs of the Department of Agriculture in India. 12: 1-98.*

Singh, K. 1932. *On some new Rhynchota of the family Aleyrodidae from Burma. Rec. Indian Museum. 34: 81-88.*

Fig Whitefly Distribution Map

([http://www.fl-dpi.com/maps/fig_whitefly/Singhiella_simplex\(Tri-County\).pdf](http://www.fl-dpi.com/maps/fig_whitefly/Singhiella_simplex(Tri-County).pdf))

More Fig Whitefly Information

(http://www.fl-dpi.com/enpp/ento/fig_whitefly.html)



Fig. 1. Fig whitefly, *Singhiella simplex*, infestation on *Ficus benjamina*
Photo credit: UF-IFAS, Miami-Dade County Extension



Fig 2. Severe defoliation of weeping fig caused by fig whitefly infestation.
Photo credit: UF-IFAS, Miami-Dade County Extension



Fig 3. Adult fig whitefly.
Photo credit: UF-IFAS, Miami-Dade County Extension



Fig 4. Puparia of fig whitefly on *Ficus benjamina*.
Photo credit: UF-IFAS, Miami-Dade County Extension