

# *the* TROPICAL GARDEN

WINTER 2014



PUBLISHED BY FAIRCHILD TROPICAL BOTANIC GARDEN

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SAVING FLORIDA'S WILD NATIVE ORCHIDS



# The Rugose SPIRALING WHITEFLY New Bug on the Block

Text and photo by Kenneth Setzer

Whitefly at best causes unsightly blemishes on our landscaping. Depending on the species, it can cause defoliation and bigger problems.

**W**e say “whitefly” casually, but there are actually 60 species of whitefly reported within Florida.

The rugose spiraling whitefly—also known as the gumbo limbo whitefly or rugose whitefly—is a newer species to South Florida. Entomologists know it as *Aleurodicus rugioperculatus*. It is within the order of insects known as Hemiptera, which classifies it as a “true bug.” That means it, like other hemipterans, doesn’t chew with a jaw as many animals do. Instead, it has a mouth like a needle and syringe, which pierces and sucks up its food—in this case plant nutrients. Fortunately, this is not the same whitefly that causes ficus defoliation.

At about two millimeters, adult rugose spiraling whiteflies are very small (although they are larger than other whitefly species) and look much like tiny white moths with faint, irregular brown bars across their wings. Males have pincer-like “tails.” They are named for the spiral pattern in which they lay their eggs on the ventral part (underside) of leaves. Other whiteflies do the same, so an expert may need to examine them under a microscope to be certain of the species.

More than half the time, the rugose spiraling whitefly is seen on gumbo limbo, coconut palm, *Calophyllum* species, black olive, pygmy date palm, bird of paradise, Christmas palm and mango. Monitor plants by looking for the spiral egg

patterns as well as a fluffy, waxy covering underneath the leaf and black sooty mold on top. The dreaded sooty mold forms because the whitefly excretes a sticky substance called honeydew, on which the sooty black fungus grows.

This whitefly is not yet known to introduce a virus or other pathogen to its hosts, but because it does remove nutrients, heavily infested plants may be stressed. While it won’t directly harm your plants, excessive amounts of the black mold can hinder their ability to photosynthesize. The honeydew and accompanying black soot can cover just about anything under or near plants harboring the whitefly, including cars, patios, sidewalks and other plants.

Though concentrated in Miami-Dade, Broward and Monroe Counties, the Florida Department of Agriculture and Consumer Services indicated in a 2012 publication that this whitefly species has been collected in Indian River and Polk counties, meaning it might be able to survive in central Florida as well.

To treat a minor infestation, washing the plant off with a garden hose will be temporarily effective with regular follow up. Insecticide is also only a temporary fix, and it kills beneficial insects as well. Commercial growers might need to apply a systemic insecticide, but this renders fruit inedible. A safer bet for more extreme infestations is horticultural oil, which can be sprayed on plants. It

works by suffocating insects, but doesn’t discriminate between beneficial or harmful ones. One you may find available is called neem oil, a natural plant derivative. If you go this route, be careful



to follow all directions, as you can do more harm than good if you apply the product incorrectly.

Parasites and a certain beetle have already begun to attack this whitefly, so hopefully in time they will naturally reduce the rugose spiraling whitefly population.

Learn more about whiteflies at [www.flwhitefly.org](http://www.flwhitefly.org), and specifically about the rugose spiraling whitefly at [entnemdept.ufl.edu/creatures/orn/Aleurodicus\\_rugioperculatus.htm](http://entnemdept.ufl.edu/creatures/orn/Aleurodicus_rugioperculatus.htm)

