Ficus Trees Under Attack!

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Both the Cuban-laurel (*Ficus microcarpa* [or *retusa*]) and the weeping fig (*Ficus benjamina*) have separate, new insect pests that may cause some defoliation. In late February and early March 2008, about 90% of these two main ficus hedge species were infested with two recent additions to our insect pest populations. I observed about 70 to 80% of the new foliage distorted by the **weeping ficus thrips** (*Gynaikothrips uzeli*), **pictures 1 and 2**, on weeping ficus hedges and the Cuban-laurel hedges were infested with the **blister (banyan) leaf gall wasp** (*Josephiella microcarpae*), **picture 3**. These new pests could cause significant leaf-drop and twig dieback because they have repeating generations and don't go away after a few months.

The **blister leaf gall wasp**, **picture 3**, arrived for the first time in Florida, in Naples of course, in early 2007 and attacks only the Cuban-laurel. It is caused by a small wasp about 1.5 mm long. The galls consist of a series of bumps that may run together and distort the foliage. The female wasp "stings" the foliage and inserts eggs. Larvae hatch from the eggs. These are tiny and almost transparent and grow as the plant tissue swells around each larva and provides nourishment. Information is lacking on the biology of this pest. There was an abundance of leaf drop in mid-May due to the severe number of galled leaves. This leaf drop may have been worse because of our dry weather. California reported this pest about ten years ago. However, entomologists David Kellum (San Diego Co.) and Nick Nisson (Orange Co.) report (June 2008) it is not a significant landscape pest now.

Most landscapers are familiar with the common leaf distortion on Cuban-laurel caused by a little black thrips (*Gynaikothrips ficorum*) from southeast Asia. Th f responds to the sucking type feeding of these thrips by folding upward along the mid-vein and resembles a pea pod. Because this gall hasn't normally been very abundant, it is usually of little concern.

Our ever-abundant weeping fig isn't attacked by the Cuban-laurel thrips. But, in 2003, another species of thrips arrived from southeast Asia, *Gynaikothrips uzeli*, **pictures 1 and 2**. This thrips makes a similar leaf-fold distortion, but only on the weeping fig leaves. In my June 2007, Naples Daily Newspaper column, I stated, "This damage hardly affects these vigorous ficus trees." But now, from the looks of the large number of attacked leaves this spring, there could be more damage than usual, perhaps due to our earlier, extended drier weather.

The lobate lac scale (*Paratachardina pseudolobata*), **picture 4**, also attacks ficus trees as well as wax myrtle, cocoplum and over 300 plus other plant species! Another scale insect causing ficus defoliation in the Miami area is the **fig wax scale** (*Ceroplastes rusci*), **picture 5**, which has a broad host range. I have seen it damaging Simpson's-stopper (*Myrcianthes fragrans*) hedges in Collier County.

The newest insect, the **eye-spot midge** (*Horidiplosis ficifolii*), **picture 6**, is a rather inconspicuous fly in the Cecidomyiidae family. The tiny, orange–rose colored larva (in red circle in pic. 6) initially causes a light colored, slightly elevated swelling (some literature refers to this as a "blister", but I say it is too small!) about 4 mm in diameter. With time, dark brown blotches develop resembling a stain or some fungal leaf spot disease. I prefer to call this an "eye-spot" gall. This occurs only on Cuban-laurel ficus and has only been reported in Collier County. Thanks to DPI Specialist, Scott Krueger, who discovered the pest in early January 2008. It is difficult to tell how damaging the eye-spot gall is, as the blister wasp galls are also found deforming the same leaves as the eye-spot galls.

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The **ficus whitefly** (*Singhiella simplex*), **pictures 7 and 8** (photos by Adrian Hunsberger, UF/IFAS), will be a major pest when it arrives on our coast. In late November 2007, it was causing defoliation and dieback of various ficus trees and hedges including the "banyans" and strangler figs in the Miami and Homestead areas. For more on these pests, go to: http://creatures.ifas.ufl.edu/ and http://www.doacs.state.fl.us/pi/enpp/pi-pest-alert.html .

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What To Do: Because the gall insects and thrips are protected by the plant tissue they are feeding on, the wasp larvae inside a fleshy gall and the thrips feed inside the folded leaf, most types of foliar applications won't affect these insects. A product with acephate, which is mildly systemic may reduce numbers, but certain formulations of this insecticide can have a strong sulfur odor (I'm being polite here!).

Foliar applications of products with spinosad may help reduce thrips numbers. Foliar or soil applications of products with imidacloprid or dinotefuran should help with the thrips and whitefly. However, little is known about these products on fly or wasp types of insects causing the eye-spot and blister galls, respectively. The soil treatments will be pricey, but should provide longer results, say 6 months, instead of 10 to 14 days with foliar applications.

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Stay tuned until we learn more about these pests. Hopefully, we will have some natural predator or parasitic insects that will enter into the picture and minimize the damage these pests are causing. There is a predator, the minute pirate bug, which you may also find inside the thrips' leaf-folds. If you see the minute pirate bugs in 5 of 10 leaf fold galls, you may back-off the pesticides and see if the good guys can slow the thrips populations. See this link for pictures of this predator: http://creatures.ifas.ufl.edu/orn/thrips/Cuban_laurel_thrips.htm

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