



Forest Health *Notes*

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Destructive Wilt Killing Redbay Trees Nears Southeastern North Carolina

The South Carolina Forestry Commission and the U.S. Forest Service recently announced the confirmation of the highly destructive laurel wilt disease in Horry County, South Carolina. As you may be aware, Horry County borders the North Carolina counties of Columbus and Brunswick in the southeastern corner of our state. To date, Horry County is the most northerly location in which laurel wilt has been found. Laurel wilt had previously only been identified as far north as Charleston and Berkeley counties in South Carolina. Moving into Horry County was a big jump for the pest as it naturally moves at a rate of 15-20 miles per year. The disease was originally observed killing redbay trees, and other hosts in the Laurel family, in Georgia and South Carolina in 2004 and Florida in 2005. The disease has been moving outward, predominantly south and west, since that time. A distribution map can be found at the end of this document.

What is laurel wilt?

Laurel wilt is caused by a fungal pathogen (*Raffaelea lauricola*) that is introduced into trees in the Laurel family by a tiny non-native beetle known as the redbay ambrosia beetle (*Xyleborus glabratus*). Trees and shrubs susceptible to this disease include redbay and swampbay, and to a lesser extent, sassafras, pondspice, and pondberry. Note that mountain laurel is not susceptible to this disease. The host trees are killed by a fungus that the female beetle carries as she bores into the tree. The fungus spreads inside the tree essentially choking it of water, resulting in tree death. This fungus spreads quickly and the trees often die in as little as 30 days after infestation. The ambrosia fungus is virulent, and tree mortality has been observed in trees attacked by a single beetle.

How will I recognize laurel wilt?

Symptoms of laurel wilt include drooping reddish and/or purplish leaves. Even after the tree is dead, these leaves may stay attached for some time. Evidence of the ambrosia beetle attack can be found by looking at the main stem of the tree. When the beetles bore into the tree, they push out toothpick-like strings of chewed wood, called frass. These toothpick-like frass strings may not be present after wind or rain events. Trees infected by this disease will also have black staining in the outer sapwood, which can be seen after removing a section of the tree's bark.

What can be done?

Currently, there is no reliable way to save a beetle infested/wilt infected tree. Sanitation and avoiding moving affected wood will slow the spread of the beetle and fungus. This non-native invasive pest is easily moved to new locations by people via the movement of infested wood products such as firewood or yard debris.

Confirmed laurel wilt-killed trees should not be removed from the site if possible. Preferred methods of disposal include cutting the tree and leaving it **on the site**, chipping the wood **on the site**, or burying or burning dead trees **on the site** following all state and local regulations.

To date, redbay ambrosia beetles and the laurel wilt pathogen have not been detected in North Carolina. Suspected laurel wilt-killed trees should be reported to N.C. Division of Forest Resources Pest Control Branch personnel for confirmation.

Additional information on the redbay ambrosia beetle and laurel wilt disease can be found at <http://www.fs.fed.us/r8/foresthealth/laurelwilt/index.shtml>
For other non-native forest pests of concern to North Carolinians, please visit http://www.dfr.state.nc.us/forest_health/fh_firewood.htm

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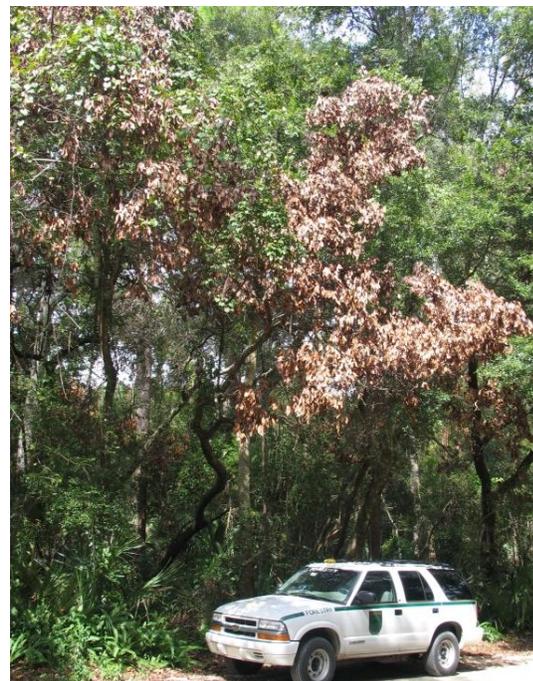
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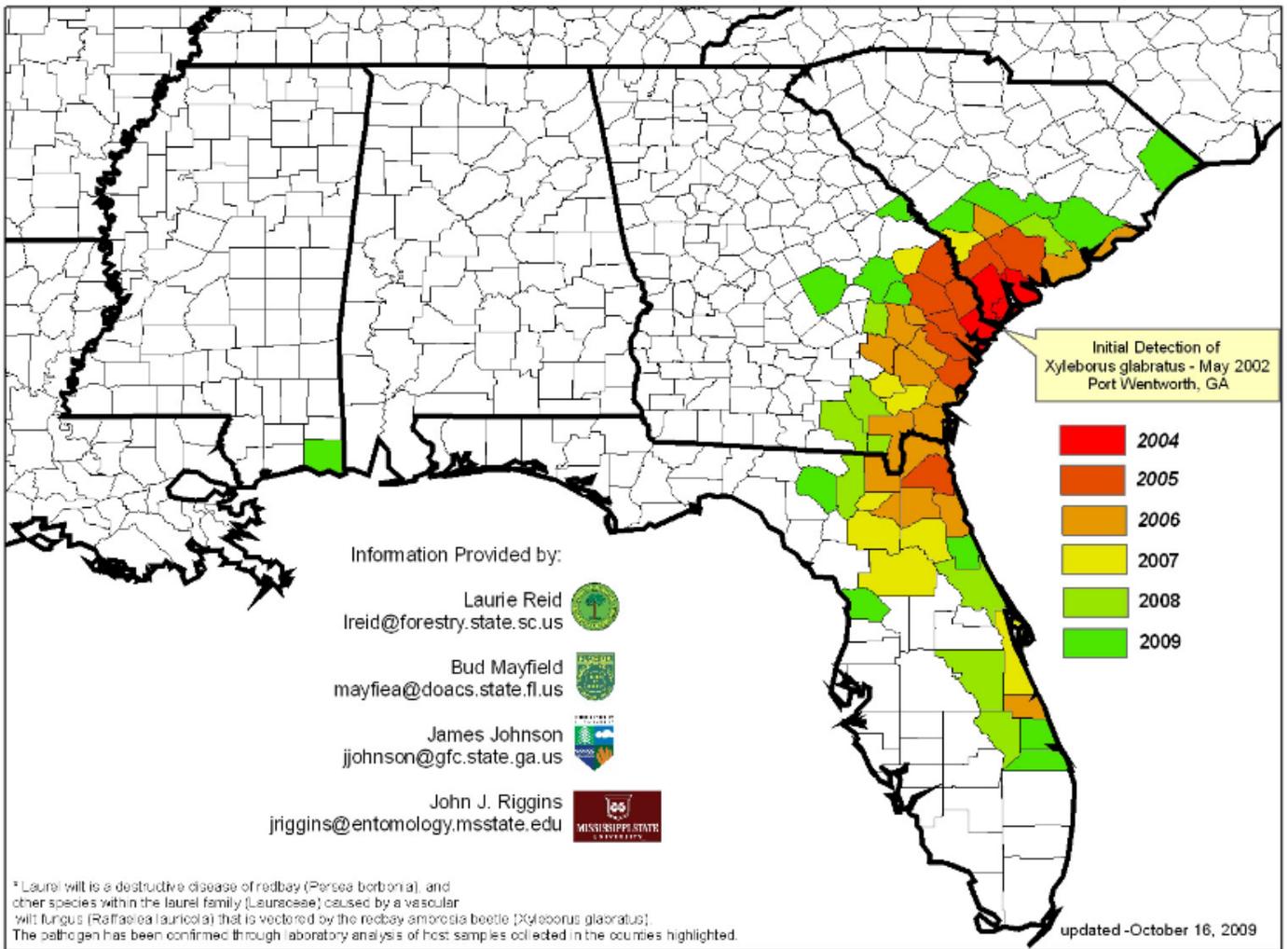
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Toothpick-like frass strings (above-left) J. Johnson, Georgia Forestry Commission

Dying redbay (above-right) A. Mayfield, Florida DACS Division of Forestry

Distribution of Counties with Laurel Wilt Disease* by Year of Initial Detection



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