

Laurel Wilt: A New Disease Threatening Redbay and other Trees in the Lauraceae



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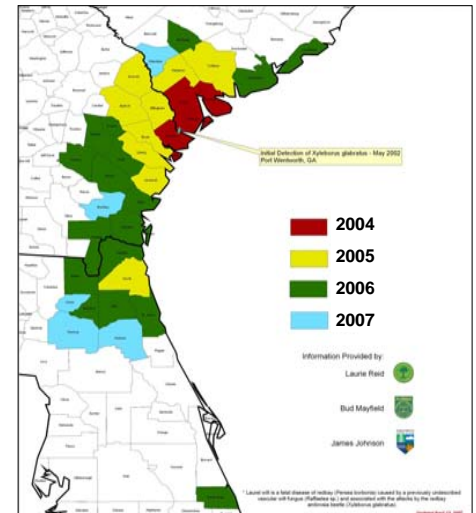
Introduction: Laurel wilt is a deadly disease of redbay (*Persea borbonia*) and certain other trees in the family Lauraceae. It has caused extreme levels of redbay mortality in the southeastern coastal plain.



Symptoms: Affected trees exhibit drooping reddish or purplish leaves that eventually turn brown. The sapwood is streaked with a dark, blackish discoloration.



Distribution: Counties with redbays exhibiting laurel wilt symptoms, by year of initial detection, as of April 2007:



Causal agents: Laurel wilt is caused by a fungus (*Raffaelea* sp.) that plugs the sapwood of host trees. The fungus is vectored into trees by the non-native redbay ambrosia beetle (*Xyleborus glabratus*), which was first detected near Savannah, GA in 2002.

The redbay ambrosia beetle (A) and points of attack on the bark (B) and sapwood (C).



Hosts: In addition to redbay, laurel wilt has been observed affecting other plant species, including:

- Sassafras (*Sassafras albidum*), distributed throughout the eastern U.S.
- Pondberry (*Lindera melissifolia*), a federally-listed endangered species
- Pondspice (*Litsea aestivalis*), a state-listed endangered species
- Avocado (*Persea americana*), a commercially valuable crop



Concerns: Laurel wilt is spreading rapidly and is likely to become distributed throughout the range of redbay (SE coastal plain) or beyond. It represents a serious ecological and economic threat to Lauraceous plants in the Americas. Management options for reducing the impact and slowing the spread of this disease are needed.

Larvae of the palamedes swallowtail are dependent on the foliage of *Persea* species as a food source.

