

NEW DISEASE EPIDEMIC THREATENS REDBAY AND OTHER RELATED SPECIES

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Laurel wilt, a new disease of redbay (*Persea borbonia*) and other plant species in the family Lauraceae, is causing widespread mortality in the coastal regions of South Carolina, Georgia and Florida. The disease is caused by a fungus (*Raffaelea* species) that is introduced into trees by an exotic insect, the redbay ambrosia beetle (*Xyleborus glabratus*), which is native to Asia and is the 12th new species of ambrosia beetle introduced into the U.S. since 1990.

Redbay trees grow in the Coastal Plain region from eastern Texas to Virginia and are ecologically and culturally important, although of minor commercial timber value. Redbay trees provide fruit for song birds, turkey, and quail; deer and black bear browse on the foliage and fruits. Additionally, the larvae of the Palamedes swallowtail butterfly require redbay leaves for development.

The redbay ambrosia beetle was discovered in Savannah's Port Wentworth area in spring 2002; however, it is likely to have been established in the area prior to 2002 when the three adult specimens were trapped at the port. The beetle likely entered the country in solid wood packing material with cargo that was imported at Port Wentworth. Redbay trees began dying in Georgia and South Carolina in 2003. By early 2005, officials with the Georgia Forestry Commission (GFC), South Carolina Forestry Commission (SCFC), and USDA Forest Service began to suspect the newly discovered ambrosia beetle was associated with this mortality. Subsequent research has found that the mortality is caused by a pathogenic fungus that is carried by the beetle. The fungus is believed to be transmitted to healthy redbay trees when they are attacked by the beetle, resulting in a wilt disease. The disease has also been discovered in individual plants of the federally endangered pondberry (*Lindera melissifolia*), the threatened pondspice (*Litsea aestivalis*), sassafras (*Sassafras albidum*) and avocado (*Persea americana*).



Abrosia galleries



"Toothpicks" can be found on trees under attack.



Dead redbays

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