

Redbay Ambrosia Beetle and Laurel Wilt in Florida's Forests

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Unusual mortality of redbay (*Persea borbonia*) was first observed in Florida in the fall of 2004 on Fort George Island in northeast Jacksonville (Duval County). A vascular wilt fungus, *Ophiostoma* (anamorph = *Raffaelea*) sp. was isolated from redbay wood samples from this site in August 2005 and the redbay ambrosia beetle (*Xyleborus glabratus*) was initially detected there in October 2005. Wilt disease in redbay was detected in six additional Florida counties in 2006 (Baker, Bradford, Clay, Nassau, St. Johns and Indian River) and in Putnam County by January 2007. Percent mortality among 132 redbays monitored on plots at Ft. George Island increased from 10% to 92% in the course of just 15 months (July 2005-October 2006). Lindgren funnel flight traps baited with diseased redbay bolts and 95% ethanol caught *X. glabratus* year round, with very low numbers (<1.5 beetles/trap/day) from winter through early summer, increasing numbers through late summer, and peak catches (>11 beetle/trap/day) in September and November. Sixteen avocado (*Persea americana*) plants (basal caliper range 1.7-5.6 cm) were planted for monitoring purposes at Ft. George Island in 2006. Both *X. glabratus* and the *Ophiostoma* sp. were recovered from a dead avocado seedling in December 2006 but it was uncertain whether the wilt fungus caused the mortality. Florida has developed (and will continue to update) informational resources about the disease, including pest alerts, firewood posters, and a video segment. The effect of this wilt disease on mature redbays has been devastating and will likely continue to expand geographically. Management strategies to slow the spread and reduce impact are badly needed.