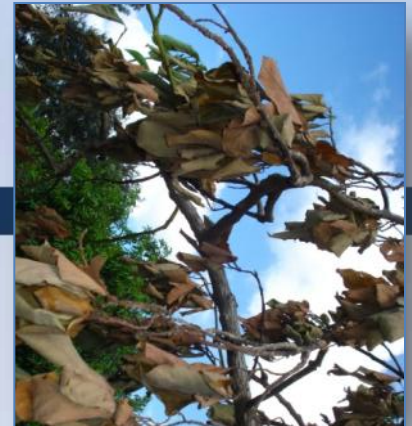


Redbay Ambrosia Beetle (*Xyleborus glabratus*) and Laurel Wilt (*Raffaelea lauricola*) in South Florida

Andrew Derksen, Karolynne Griffiths, Leroy Whilby
FDACS, USDA



The Redbay Ambrosia Beetle

(Xyleborus glabratus)

- Non-native Scolytine
 - SE Asia
- Two month developmental cycle
- Adult females
 - Alate
 - Parthenogenic
 - Minute size : 2 mm
 - Vector fungus in their mouthparts



Known Host List

- Redbay (*Persea borbonia*)
- Swamp bay (*Persea palustris*)
- Avocado (*Persea americana*)
- Sassafras (*Sassafras albidum*)
- Pondspice (*Litsea aestivalis*)
- Pondberry (*Lindera melissifolia*)
- Camphor tree (*Cinnamomum camphora*)

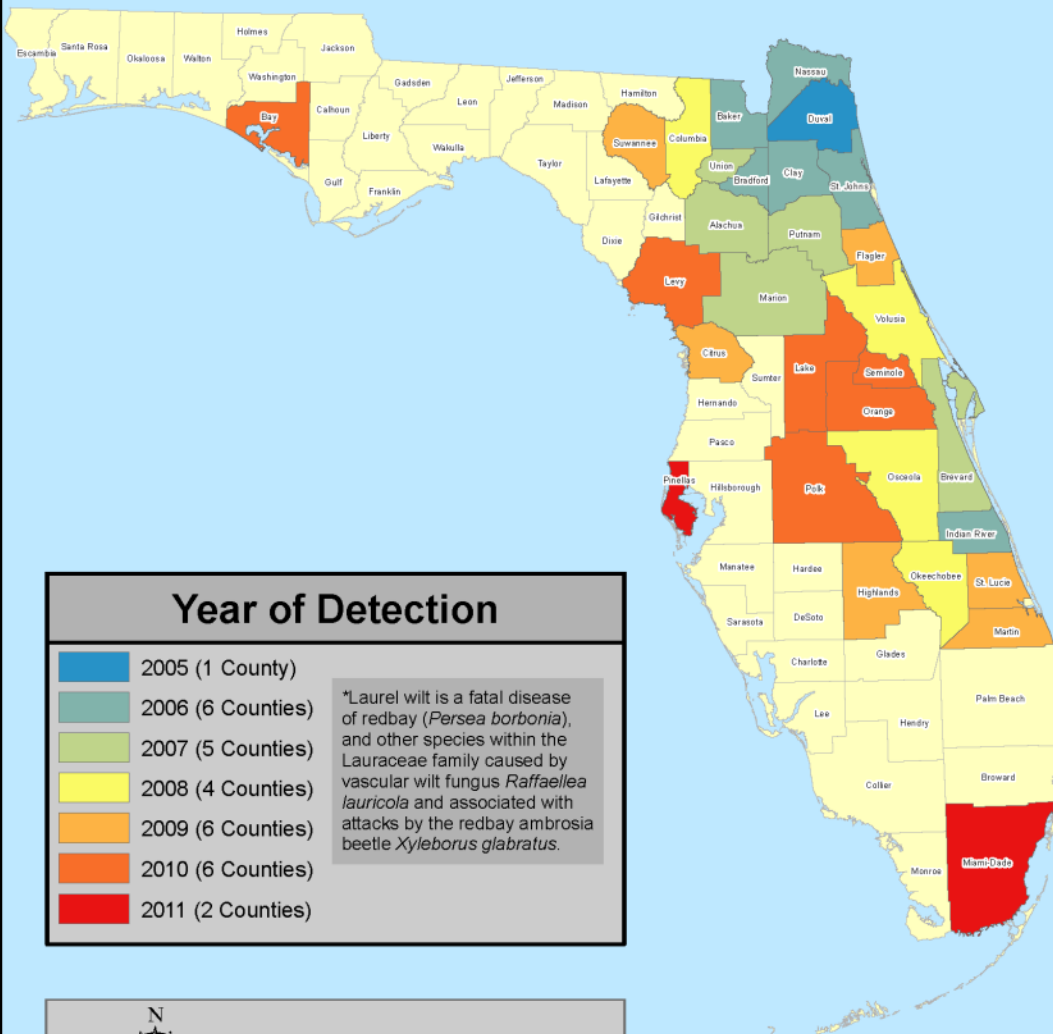
Laurel Wilt (*Raffaelea lauricola*)

- Vascular wilt
 - Samples must include xylem tissue
- Rapid decline
 - 3 months to symptoms
 - 6 months to death



Mary Yongcong, FDACS 2011

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



Year of Detection

- 2005 (1 County)
- 2006 (6 Counties)
- 2007 (5 Counties)
- 2008 (4 Counties)
- 2009 (6 Counties)
- 2010 (6 Counties)
- 2011 (2 Counties)

*Laurel wilt is a fatal disease of redbay (*Persea borbonia*), and other species within the Lauraceae family caused by vascular wilt fungus *Raffaella lauricola* and associated with attacks by the redbay ambrosia beetle *Xyleborus glabratus*.



0 15 30 60 90 120 Miles

Date: 7/18/2011

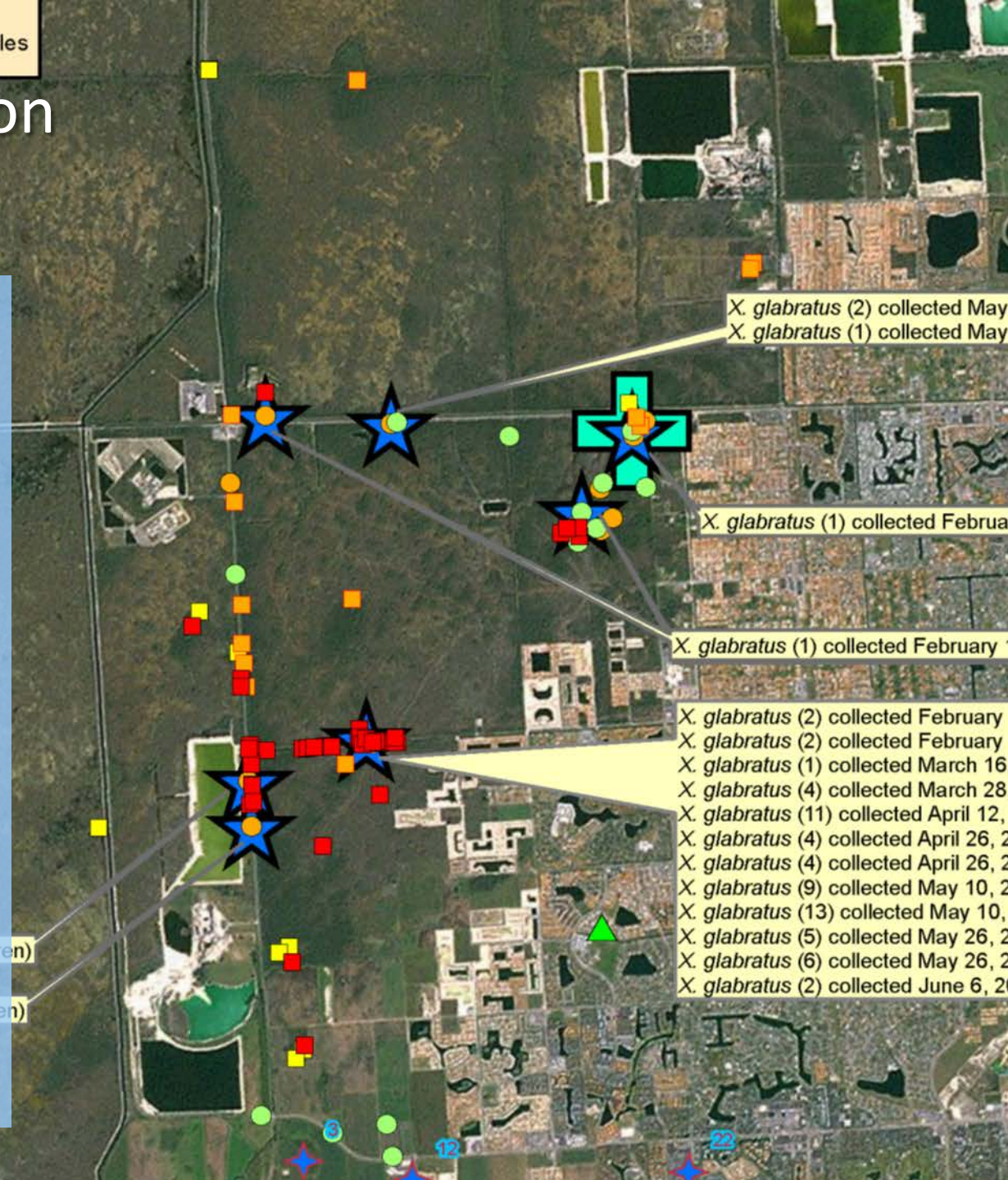
Current Range

- 30 counties positive so far
- Expected soon:
 - Palm Beach
 - Monroe
 - Broward
 - Collier

0 0.4 0.8 1.6 2.4 3.2 Miles

Current distribution in Miami-Dade

- 5 FEB 2010:
initial detection
- JAN 2011:
IFAS reports
symptomatic
trees along
Krome Ave
- Symptoms
appear
concentrated
along Bird
Road Canal



X. glabratus (2) collected May
X. glabratus (1) collected May

X. glabratus (1) collected February

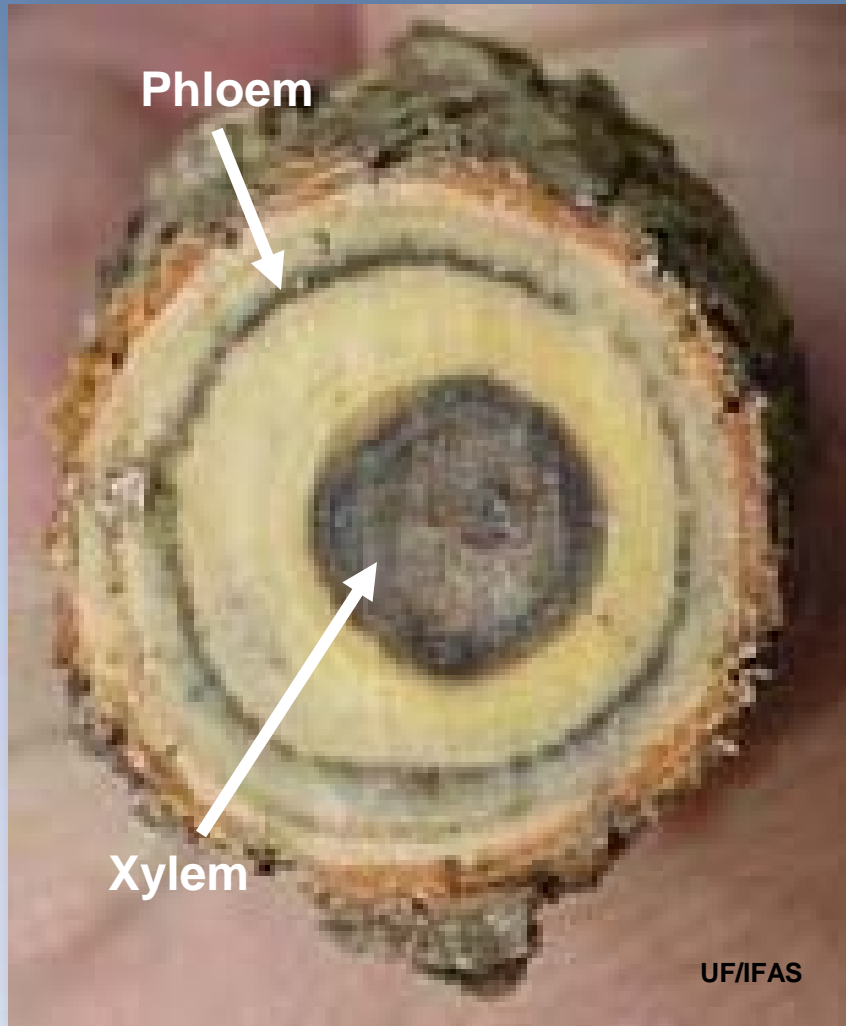
X. glabratus (1) collected February

X. glabratus (2) collected February
X. glabratus (2) collected February
X. glabratus (1) collected March 16
X. glabratus (4) collected March 28
X. glabratus (11) collected April 12,
X. glabratus (4) collected April 26, 2
X. glabratus (4) collected April 26, 2
X. glabratus (9) collected May 10, 2
X. glabratus (13) collected May 10, 2
X. glabratus (5) collected May 26, 2
X. glabratus (6) collected May 26, 2
X. glabratus (2) collected June 6, 2

X. glabratus (1) collected February (Lindgren)

X. glabratus (1) collected February, 2011 (Lindgren)

Sampling



- Pest is established and spreading
 - No management plan available
 - If you have redbay, you will eventually see decline
- Samples must include
 - Xylem tissue
 - GPS coordinates
 - Overnight shipping

Sampling

- Overnight samples to:

Dr. Tim Schubert
ATTN: Laurel Wilt Samples
Division of Plant Industry
1911 SW 34th Street
Gainesville, Florida 32608

- Call the DPI hotline to report suspicious trees: 1-888-397-1517

Acknowledgements

- Multi-agency project
 - FDACS
 - USDA
 - IFAS
 - DERM
 - NPS
 - FFWCC
 - SFWMD
- Any questions?



Andrew Derksen, FDACS 2011