USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Another day, another pathogen: Laurel wilt in the northeast

2026 CAES Forest Monitoring Workshop

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Not these “laurels”

Mountain Laurel = Ericaceae family

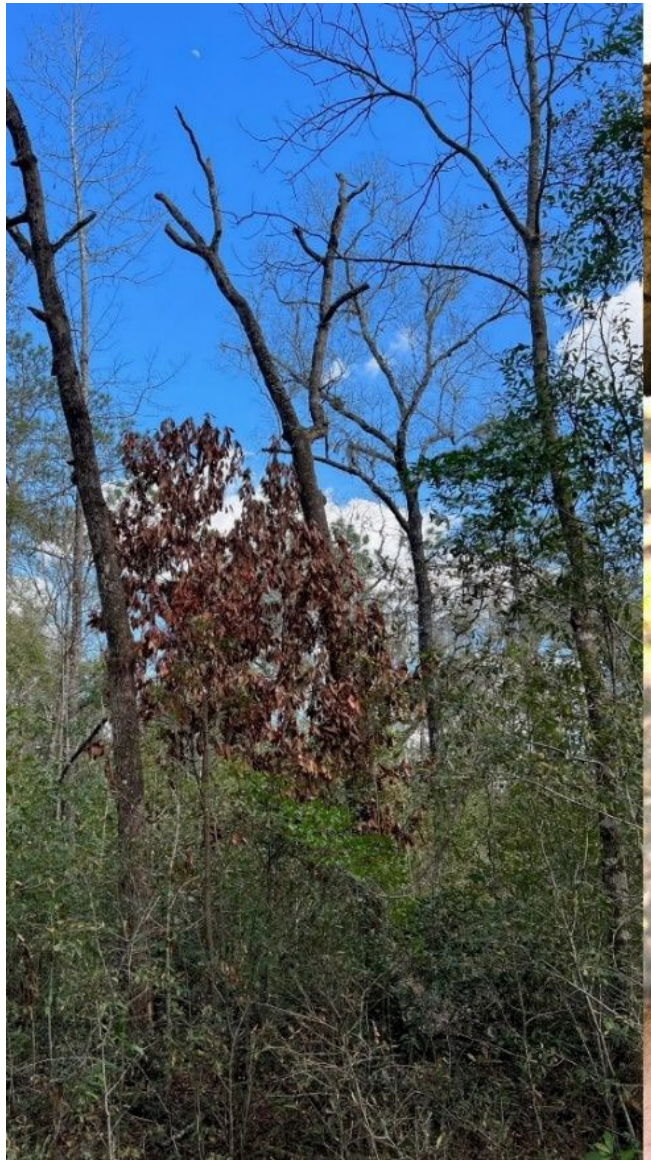
Laurel wilt infects plants in Lauraceae family

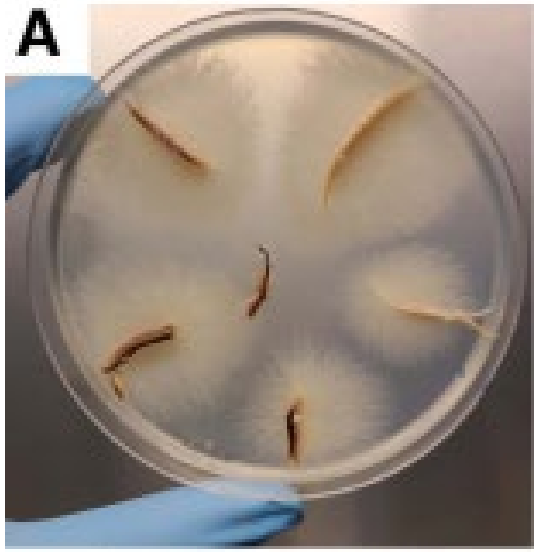
Sassafras (*Sassafras albidium*)

Northern Spice Bush (*Lindera benzoin*)

What is Laurel Wilt?

- Systemic vascular wilt pathogen
- Vectored by an invasive Redbay ambrosia beetle
- Causal agent *Harringtonia lauricola* fungus
- Spread above and belowground





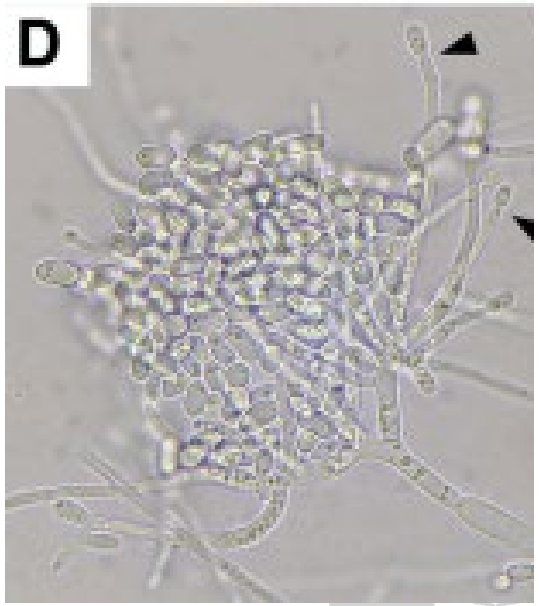
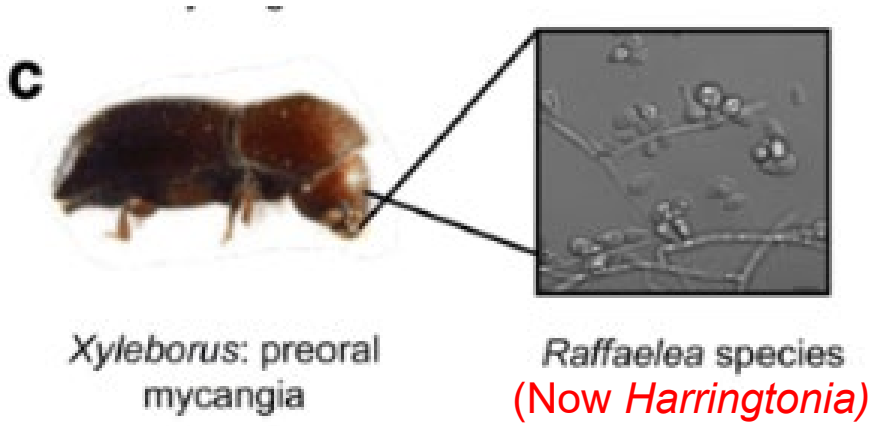
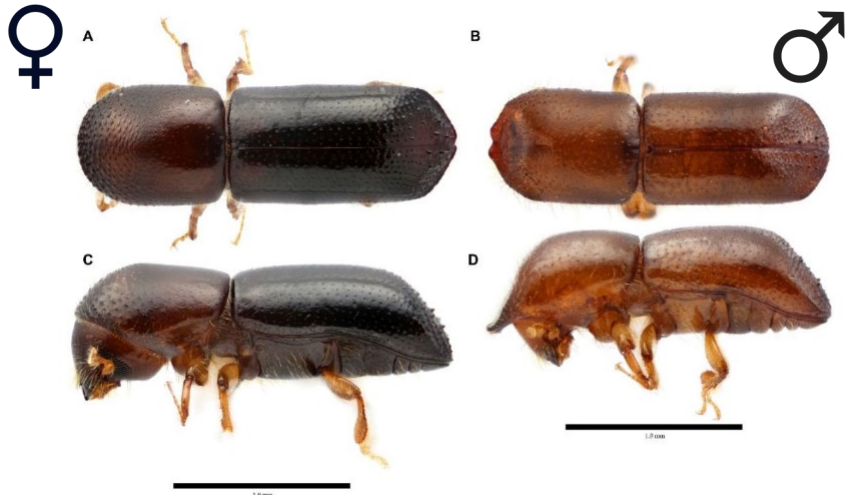


Photo credit: (left): J. Hulcur, UF EDIS, (right) Navia_Urrutia et al. 2022

Redbay ambrosia beetle vector

- *Xyleborus glabratus*
- Native to southeast Asia
- Haplodiploidy lifecycle
- Females are important for disease cycle “all it takes is one”
- Males usually remain in trees





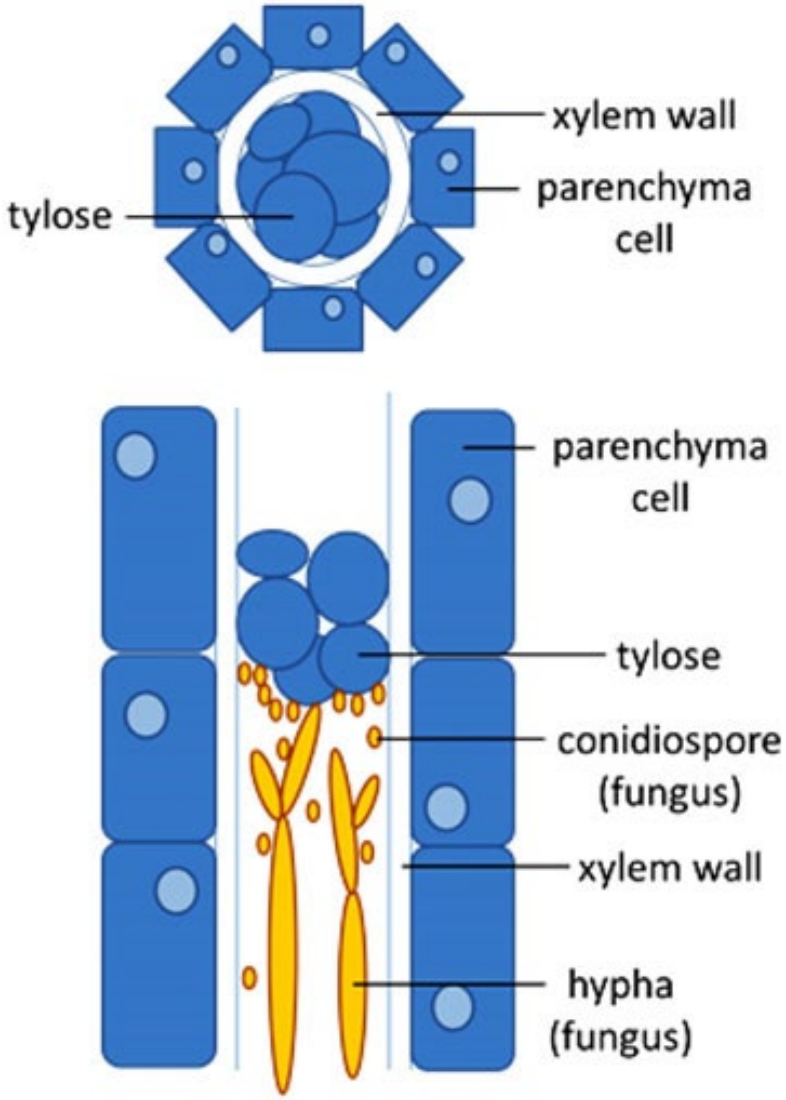
(top) Joseph and Keyhani 2021,
(bottom) Dong et al 2024 UF EDIS

Ambrosia beetles

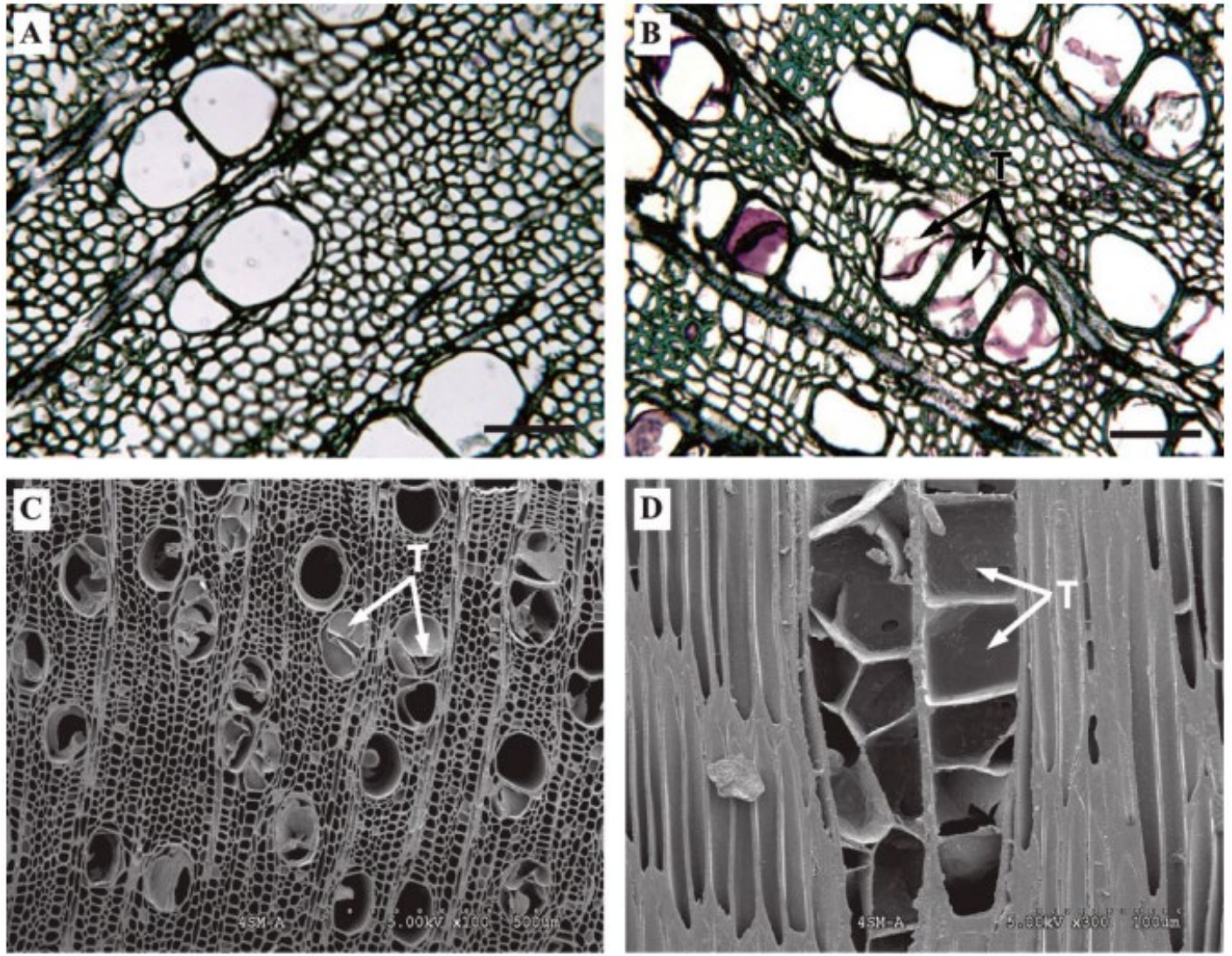
- Beetles symbiotic relationship with fungi
- “Fungal farmers”
- Generally attack already stressed / dying trees
- Fungi generally not pathogenic

Images: D. Coyle, VA Native Plant Soc.

Laurel wilt attacks living trees



Yadeta & Thomma 2013, *Frontiers*



Inch et al. 2012, *Botany*

Laurel wilt attacks living trees

Photo credit: (left) NYDEC, (right) Abby Marino

Internal symptoms

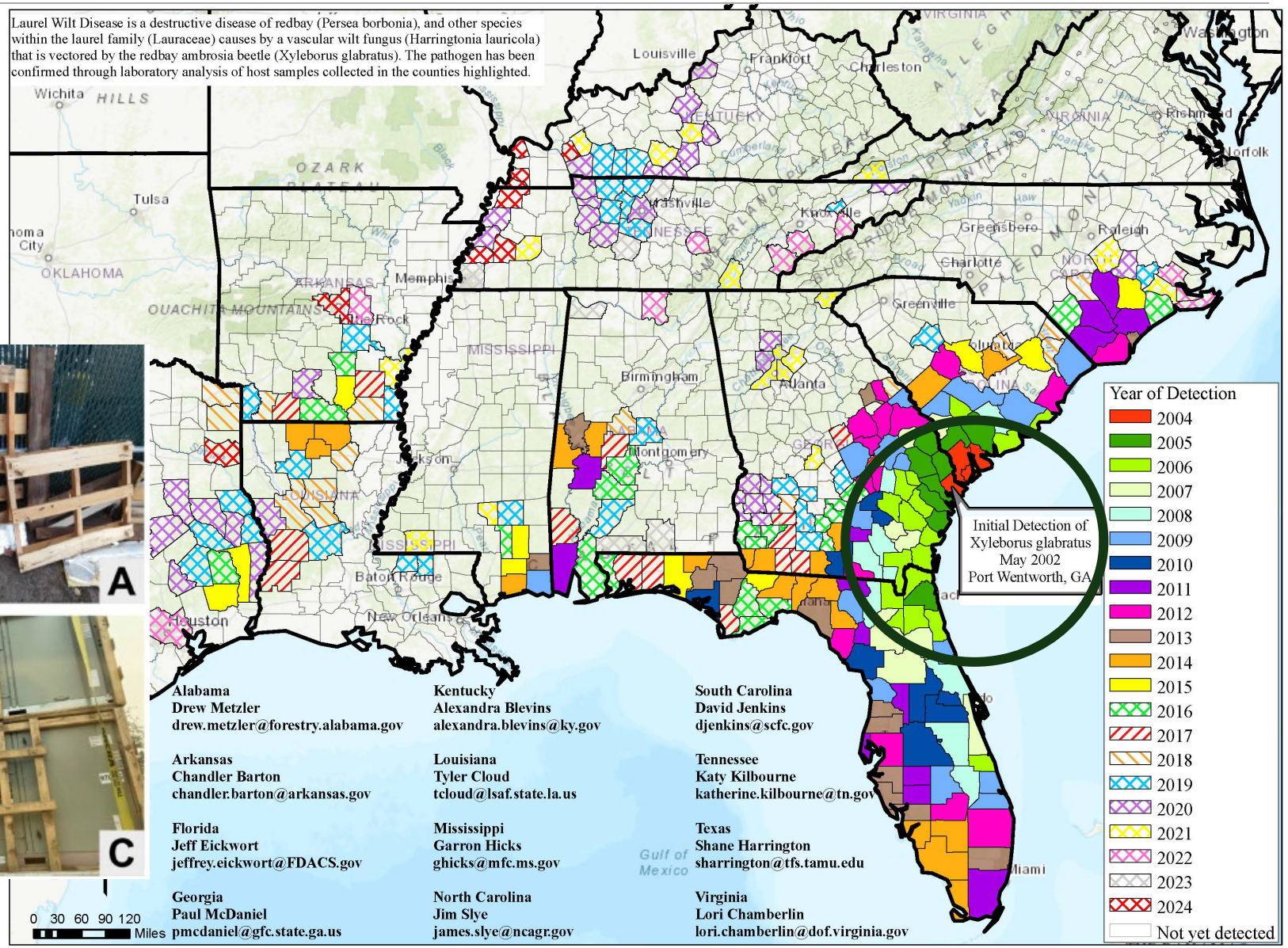
Photos: R. Gazis

Internal symptoms in sassafrass

Photo credit: NYDEC

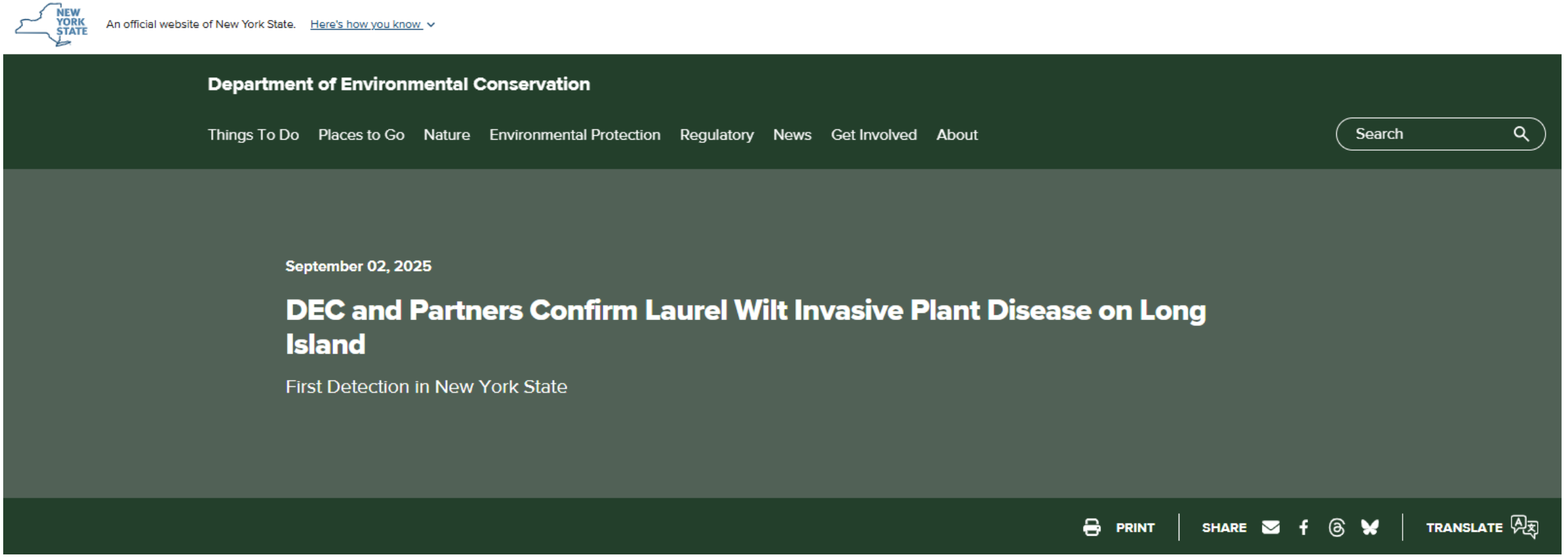
Range of Laurel Wilt (prior to 2025)

- Beetle first detected in 2002 in GA
- Beetle & fungus 2004
- Single beetle intro
- Range expansion is Changes hosts & biology



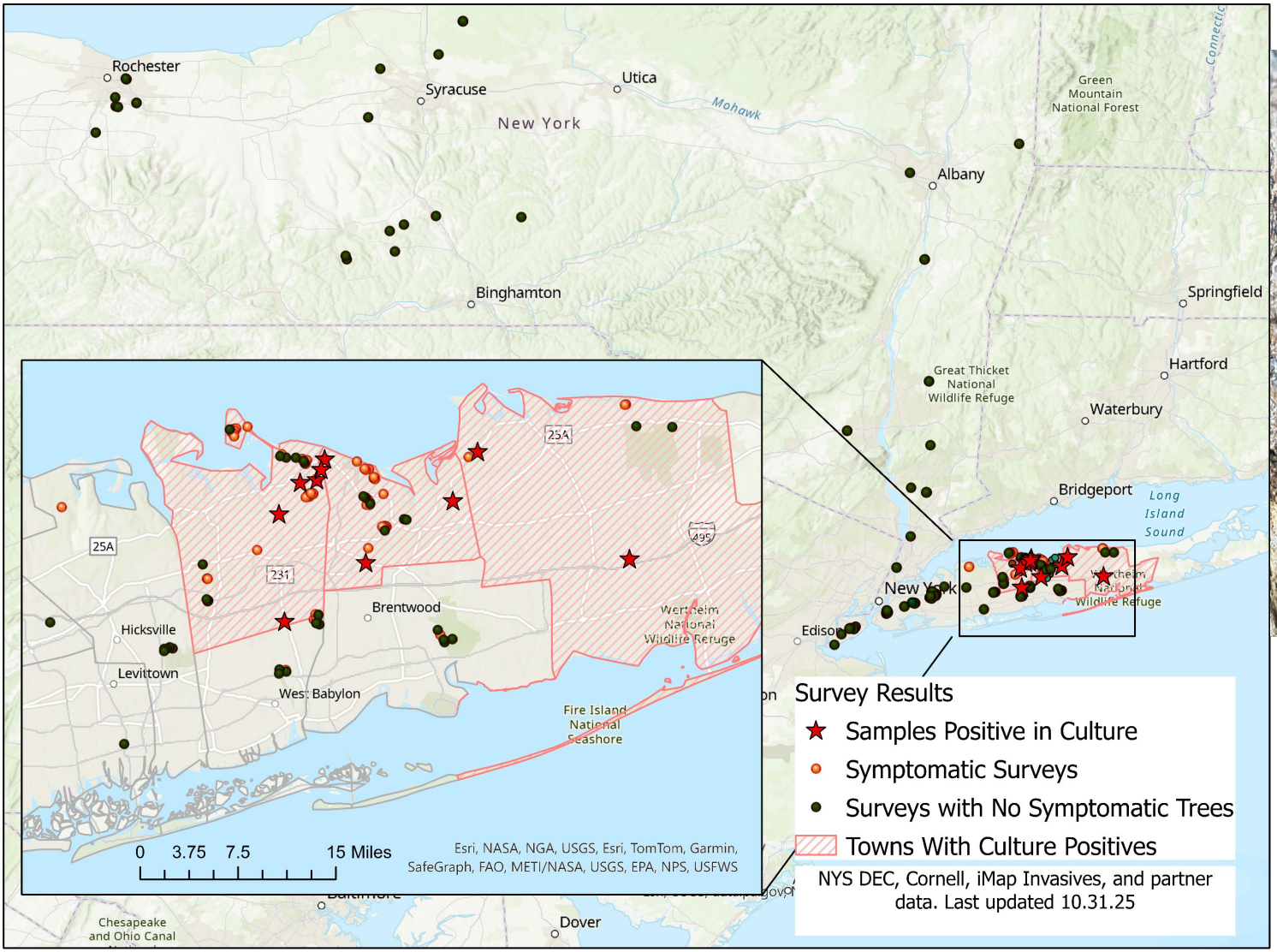
Wood: Greenwood et al. 2023 *Bio. Invas.*

Detected in Long Island, NY June 2025



500+ mile range jump to the northeast

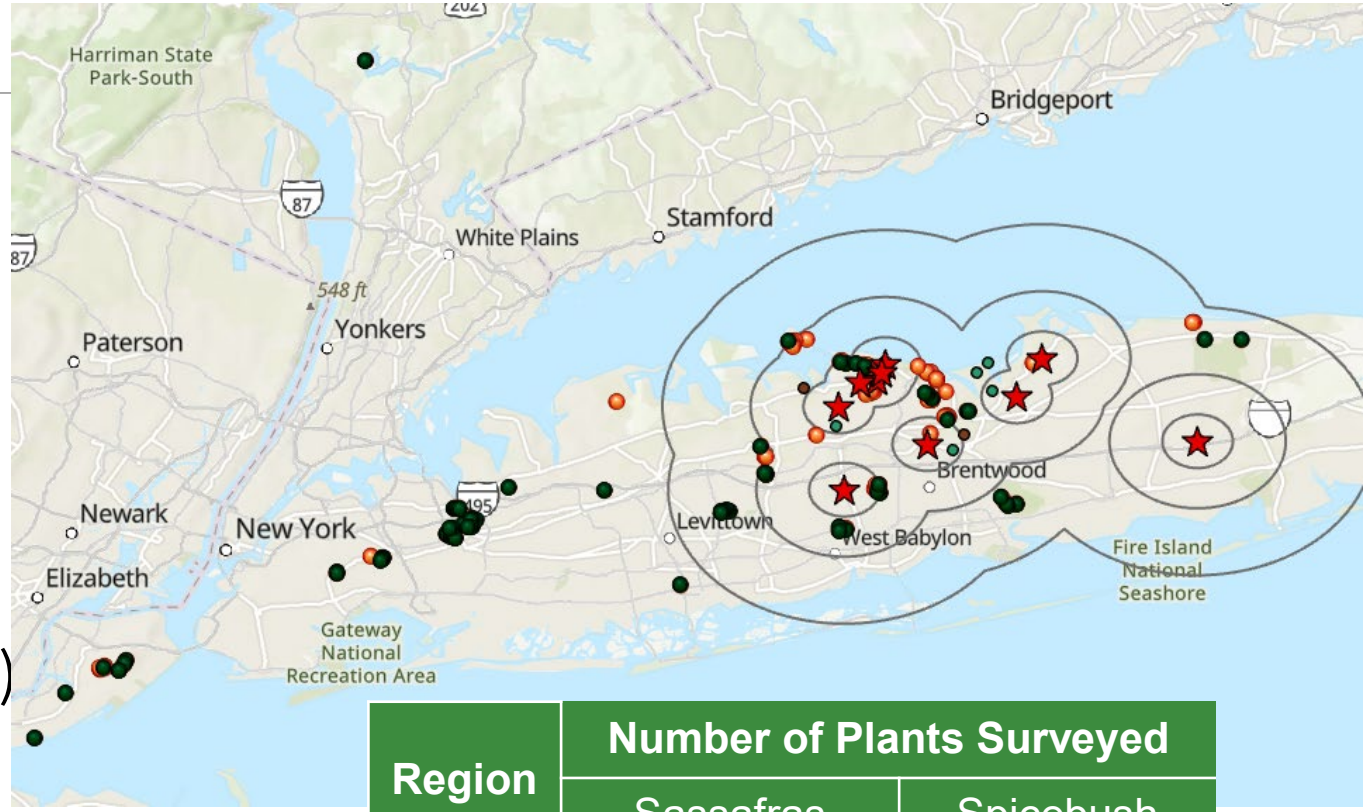
New York Laurel Wilt



Slide credit: Kelsey McLaughlin NYDEC

New York Stats

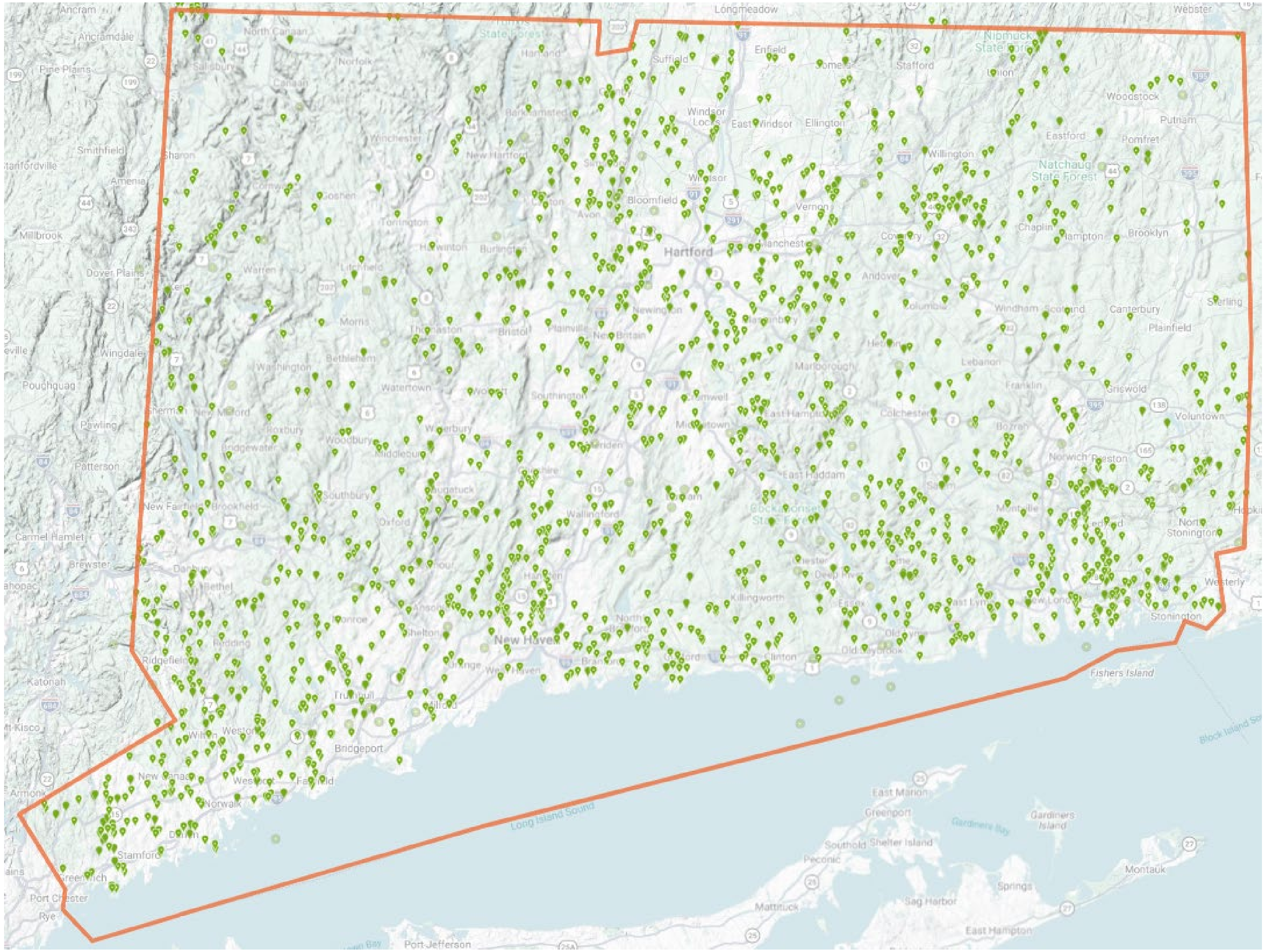
- 2415 sassafras, 880 spicebush surveyed= **3295** total host plants
- 2575 asymptomatic survey plants
- 636 wilting+106 dead plants in core area=742 (likely a slight overestimate)
- Huntington, Smithtown, and Brookehaven (all Suffolk county)
- Only sassafras



Region	Number of Plants Surveyed	
	Sassafras	Spicebush
1	1,873	150
2	269	191
3	51	114
4	81	115
7	132	115
8	54	150

Slide credit: Kelsey McLaughlin NYDEC

iNaturalist observations of Lauraceae plants CT

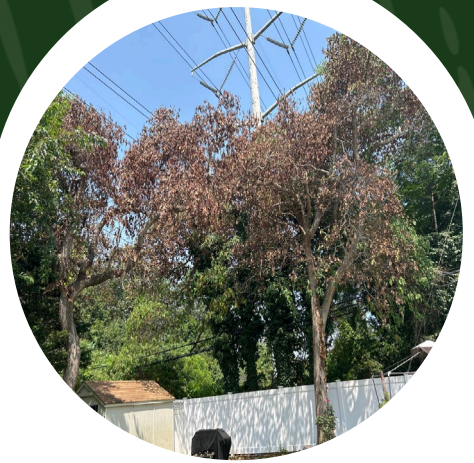


Management challenges

No effective insecticides

No effective or practical fungicides

Insect trapping less effective early on



Disease moves quickly and aggressively

Management challenges

CLONAL ADVANTAGE

Prevention

Don’t move firewood

Don’t move infected plants

Survey & Monitor

Eradicate quickly

Major research areas for LW here

- Are other insect vectors moving Laurel wilt around in the north?
- Which host plant is most susceptible?
- Is transmission mostly above or below ground?
- Temperature tolerances
- Resistance

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Suspect trees in CT

Suspect Laurel wilt samples can go to CAES PDIO

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