

### Emerald ash borer in Oregon

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### **Emerald Ash Borer (Agrilus planipennis)**





- First detected in U.S., 2002
- 100+ million trees killed in 30 states since 1990s
- Over 95% mortality in some areas
- Several ash species at risk
- Highest cost forest pest in history of U.S.

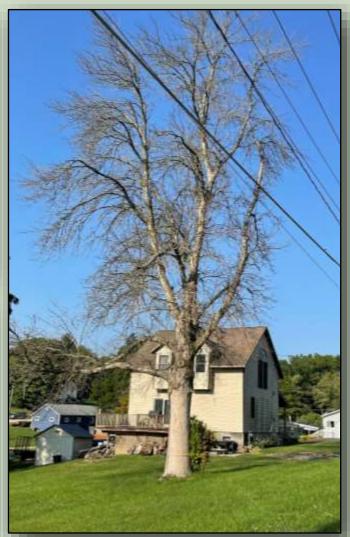
## Emerald Ash Borer (Agrilus planipennis)



 Invasive and highly destructive woodboring beetle that kills ash trees (Fraxinus spp.).







### Emerald Ash Borer (Agrilus planipennis)



- Invasive and highly destructive woodboring beetle that kills ash trees (*Fraxinus* spp.).
- Larvae feed beneath bark, eventually girdling and killing the tree.



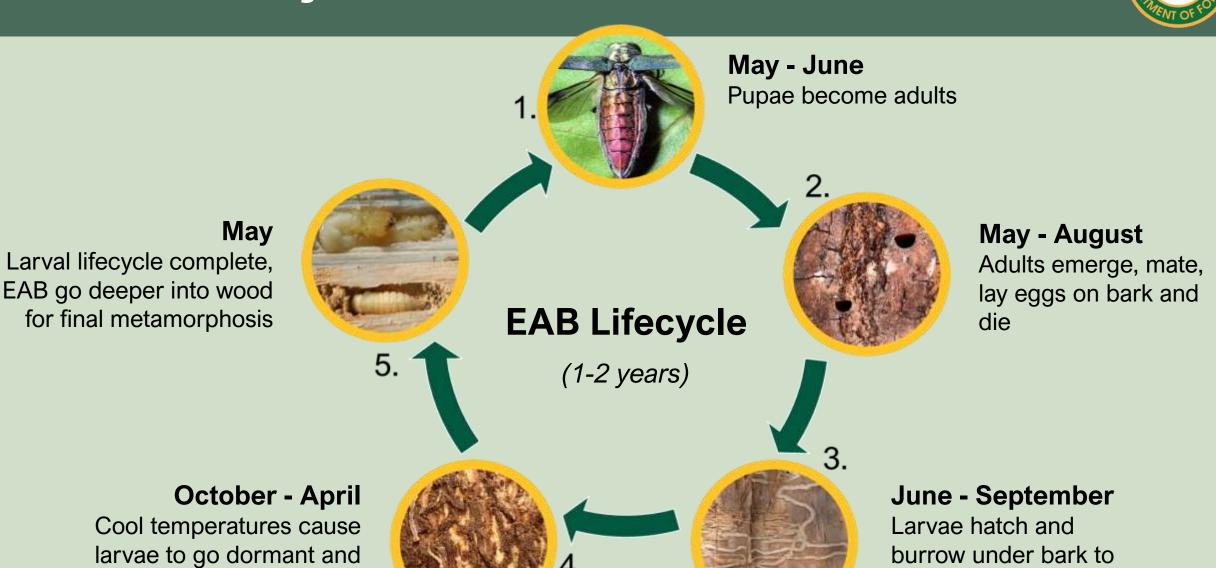


### **EAB: Lifecycle**

overwinter in tree

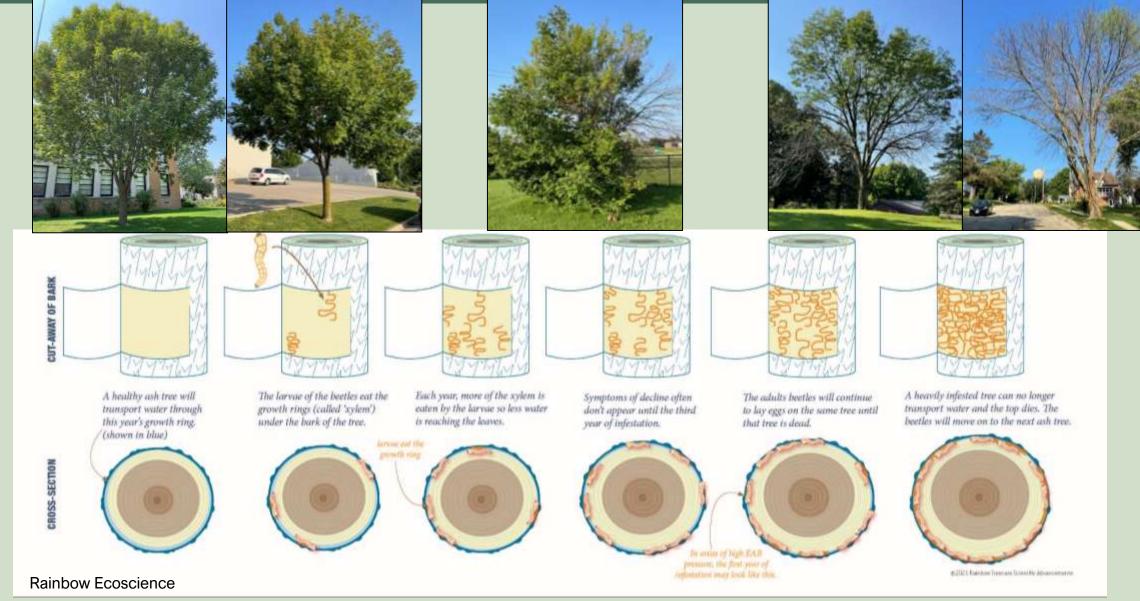


begin feeding



### **Infestation Timeline – Tree Scale**

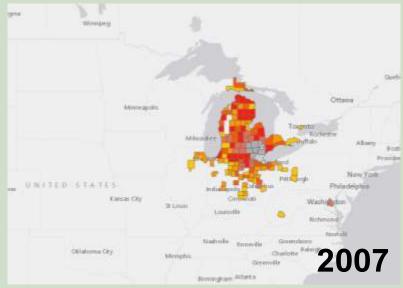


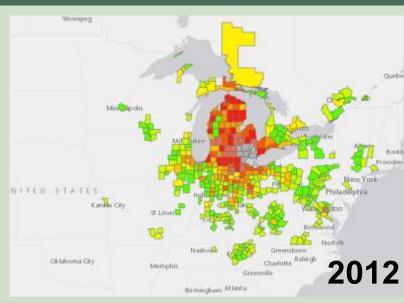


### **EAB: History in the US**

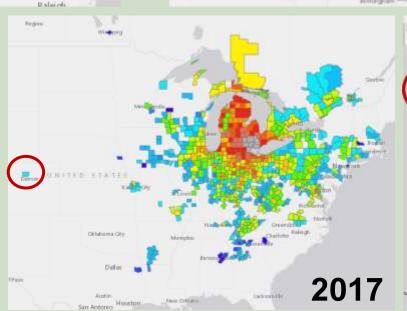


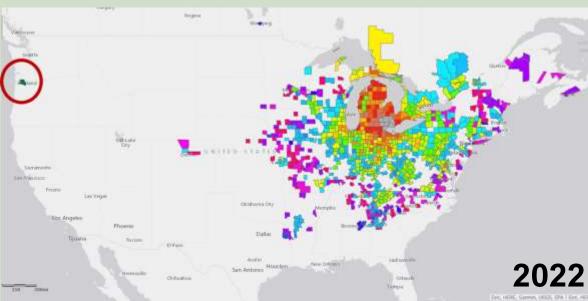






- Found in Michigan in 2002, now in 37 states and 6 provinces.
- Detected in Forest Grove, Oregon in June 2022.





### EAB detections in Canada



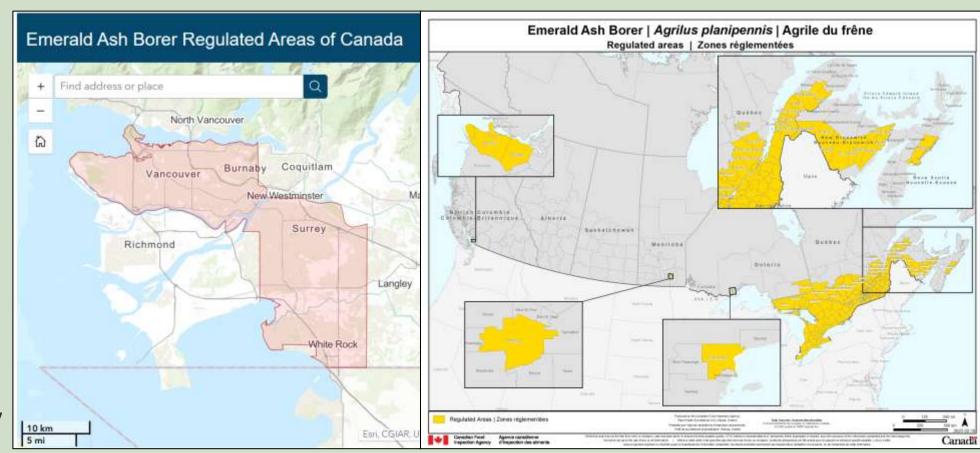
• 2002: Ontario

2008: Quebec

2017: Winnipeg, Manitoba

2018: New-Brunswick and Halifax, Nova-Scotia

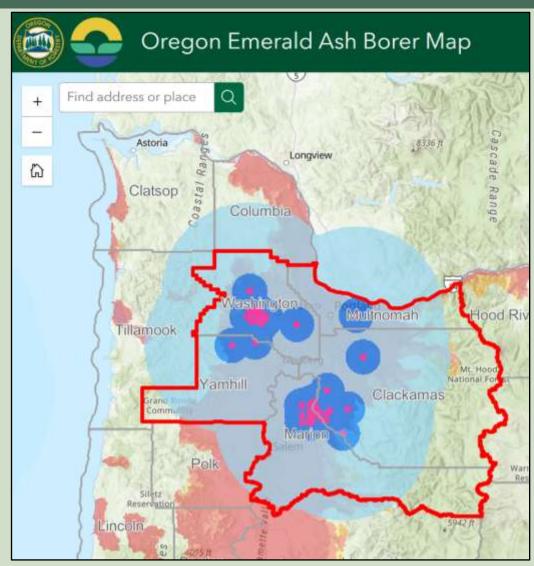
2024: Vancouver, British-Colombia



Regulated areas and items: Emerald ash borer - inspection.canada.ca

### **EAB** in Oregon





https://www.oregonEAB.com

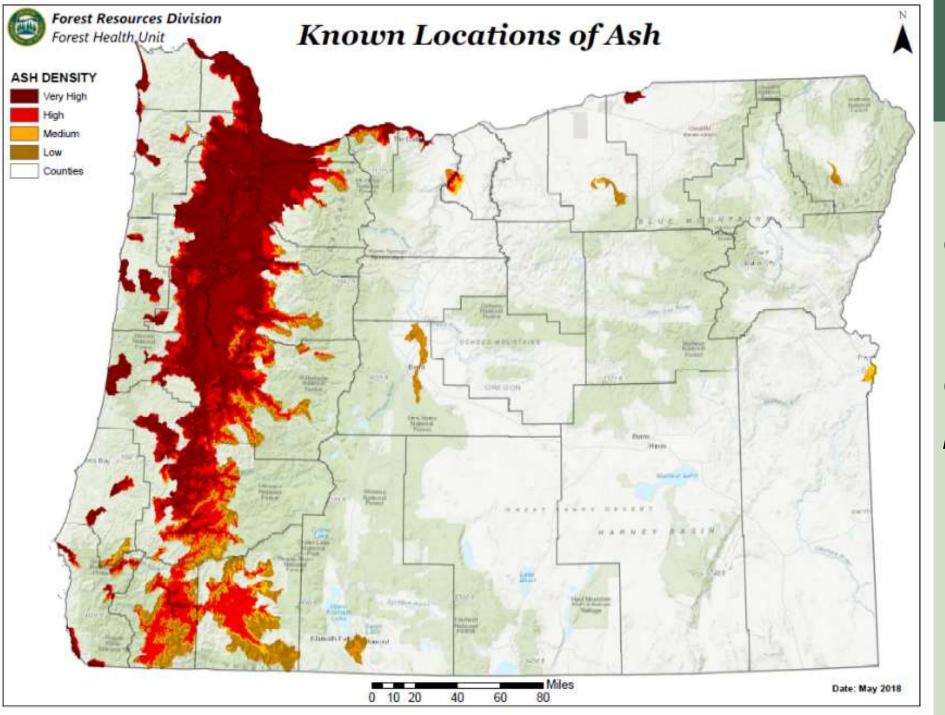
Forest Grove: June 2022

Butte Creek: July 2024

Portland: Aug 2025

Five counties under quarantine







Oregon has one native species of ash:

Oregon ash
Fraxinus latifolia

# Oregon ash (Fraxinus latifolia)



- Oregon's only native ash tree
- Important riparian tree
- Shading, bank stabilization
- Habitat for T&E species
- Cultural resource





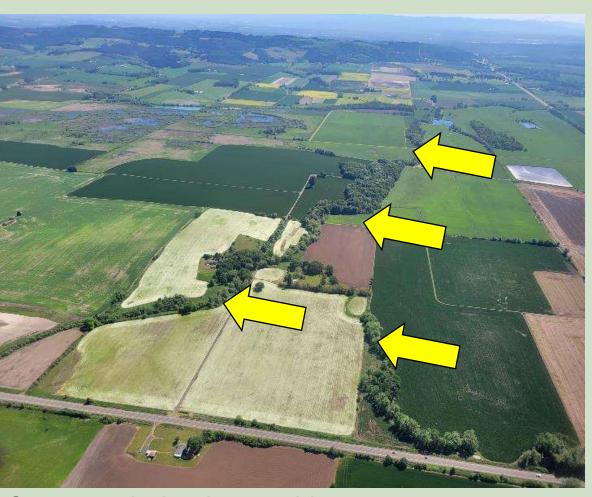


# Dominant in Willamette Valley riparian areas





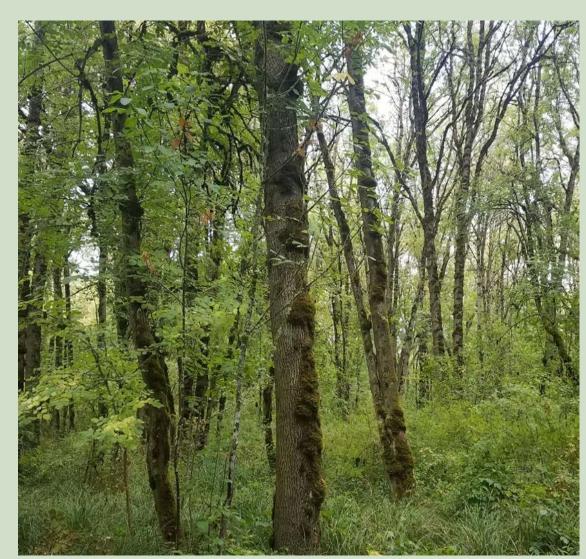
Gales Creek, W of Forest Grove



Oregon ash riparian corridors

### **Ash wetland forests**





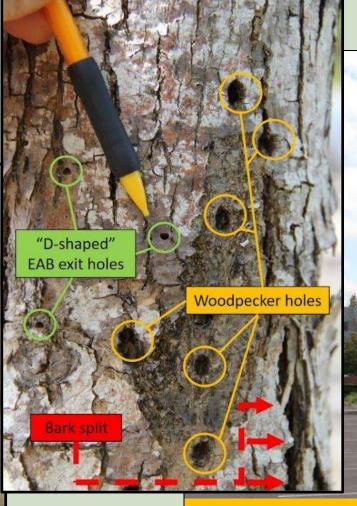
Ankeny National Wildlife Refuge

Confederated Tribes of the Grand Rhonde

### EAB Forest Grove – June 30, 2022





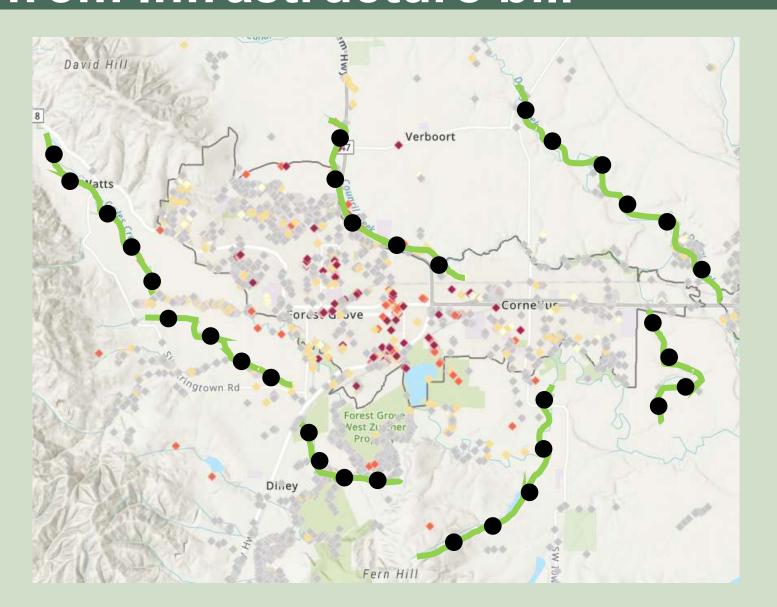




Joseph Gale Elementary School Forest Grove, OR

# 2023 – 2024 *Slowing ash mortality* – funded from Infrastructure bill





- Set up perimeter
- Intentionally girdle trees
- Attract EAB to trees
- Fall and destroy trees
- = very effective
- = very labor intensive
- = requires stable government funding
- = requires significant coordination

# Slowing ash mortality







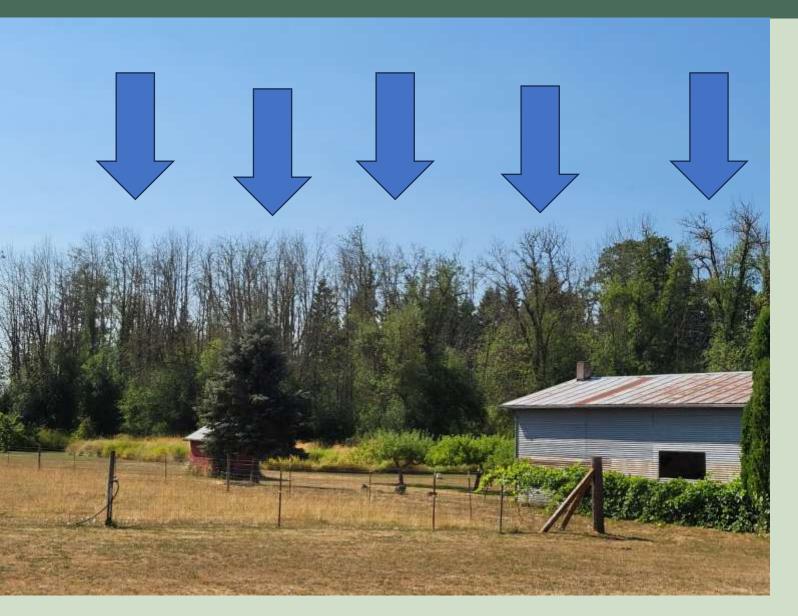




# Forest Grove, OR April 2024

### **Butte Creek 2024**







## Butte Creek (Clackamas & Marion Co.)



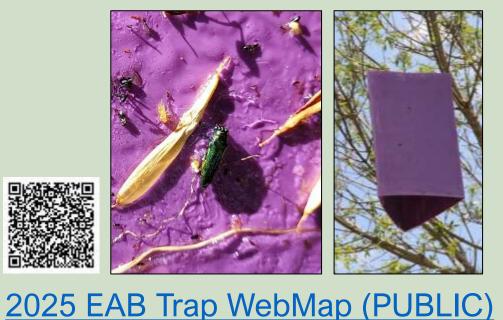


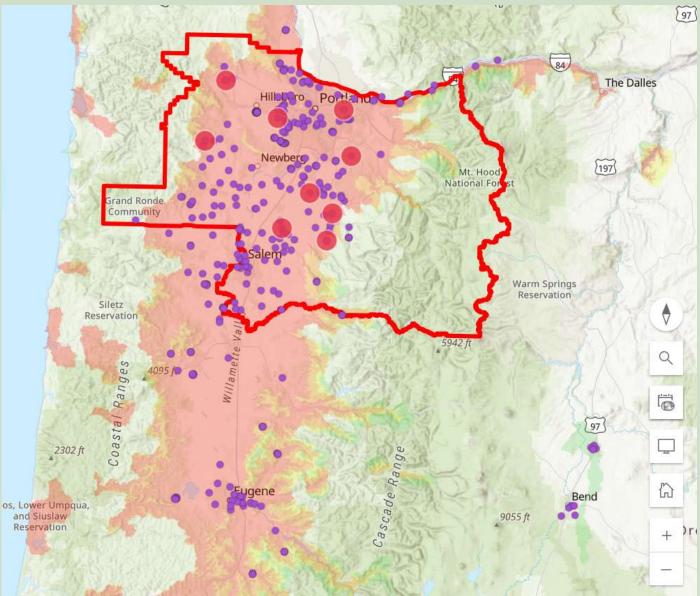


### 2025 Cooperative Trap Survey



23 cooperating agencies
335 traps
9 positives





### 2025 Cooperative Trap Survey

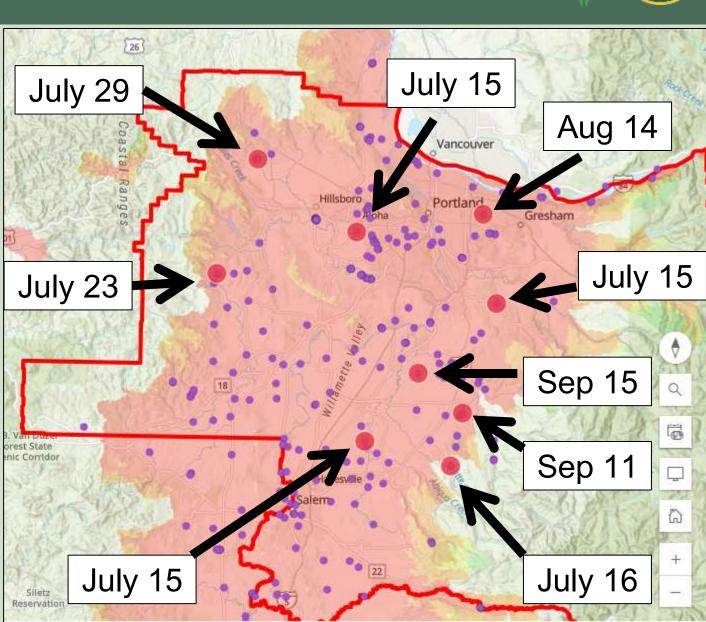


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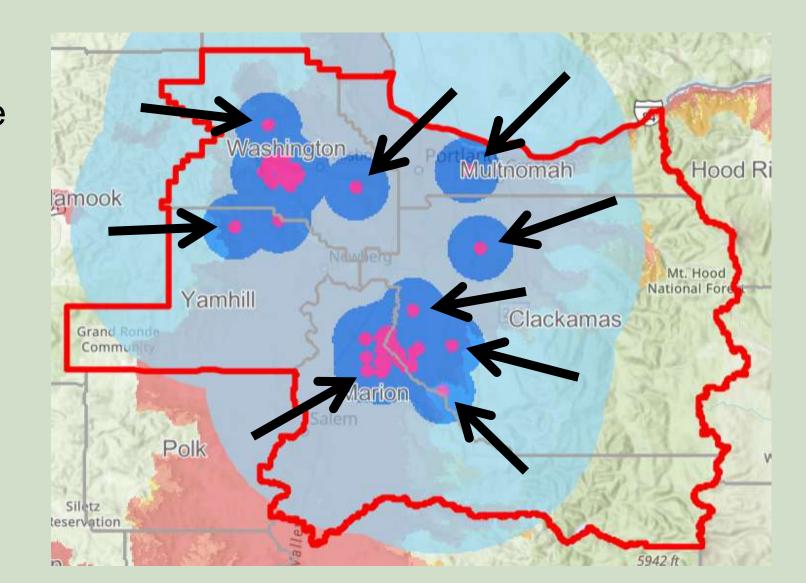
2025 EAB Trap WebMap (PUBLIC)



### Range Expansion



- All 9 EAB trap positives on EAB Web Experience
- Trapping efforts helped document range expansion in 2025

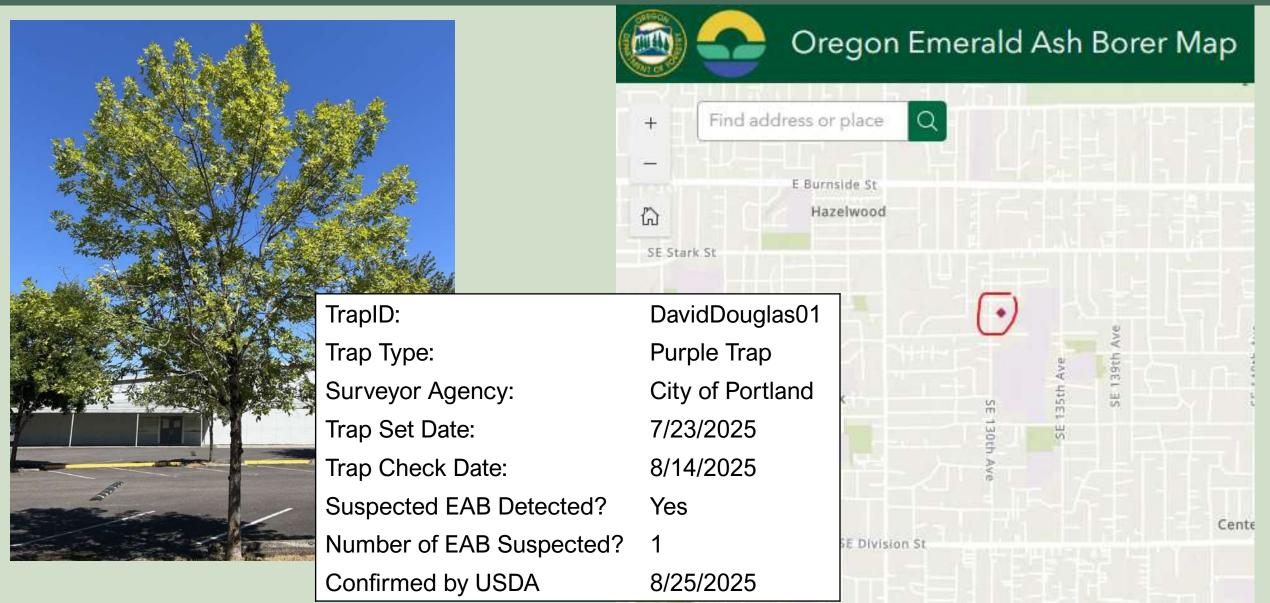




Oregon EAB Map

### Aug 14, 2025 – First Detection in Portland





### Media day, Sept 10, East Portland





THINK OUT LOUD

### Invasive emerald ash borer spreads to Portland





Broadcast: Thursday, Sep. 11

On Wednesday, the Oregon Department of Forestry announced that the emerald ash borer has now been found in the Hazelwood neighborhood in East Portland and five other new sites in the north Willamette Valley. In addition to Portland, the highly invasive and destructive beetle has now been found near other urban areas in the region, including Beaverton, Banks and Oregon City. The Oregon Department of Agriculture said that the discovery of EAB in Portland has now put all of Multnomah County into the EAB quarantine zone, which also includes Washington, Yamhill, Marion and Clackamas counties.

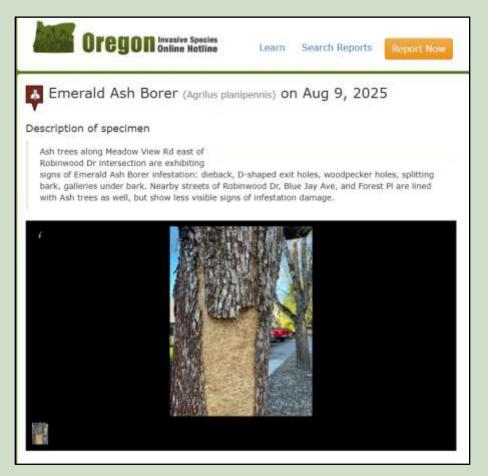
Native to Asia, EAB was first detected in Oregon in 2022 at an elementary school in Forest Grove. Considered to be the most destructive forest pest in North America, EAB has killed over 100 million ash trees nationwide since its arrival in the U.S. more than 20 years ago.

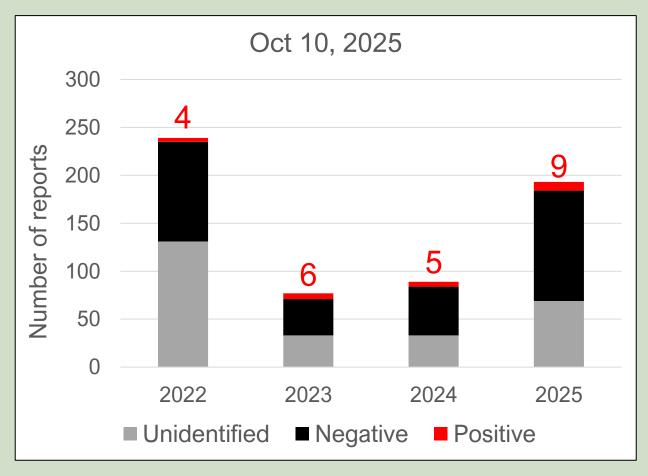
Joining us to discuss the spread of EAB and <a href="https://how.the.public.can.help">how the public can help</a> efforts to contain it are Cody Holthouse, manager of ODA's Insect Pest Prevention and Management Program and City of Portland Forester Jenn Cairo.

### Oregon Invasive Species Council Hotline



### 2025 Hotline reports for EAB--69 unidentified, 115 negative, 9 positive





https://oregoninvasiveshotline.org/

## Spot EAB: Survey123 for tree inspections



Survey tool for natural resource professionals

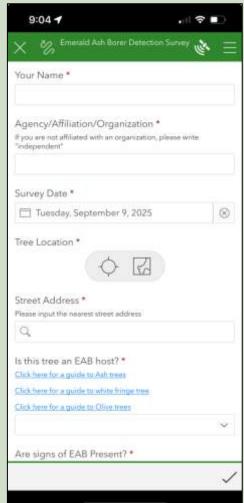
Jan 1 to Oct 10, 2025 reporting period

85 reports: 7 positive









### **Oregon 2025 EAB Detection Summary**



### **EAB Detection Summary:**

Jan 1 to Oct 10, 2025 reporting period

Public	Professional	Survey	Total #	Positives*	% Positive
	✓	Traps	335	9	2.7
✓	✓	Hotline	193	9	4.7
	✓	Spot EAB	85	7	8.2
		Totals	613	25	4.1

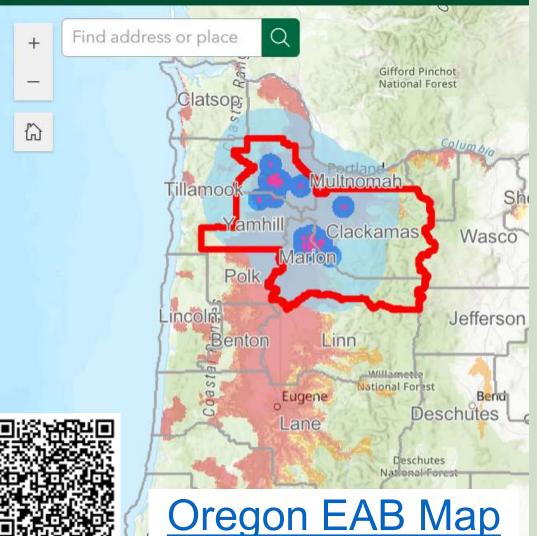


<sup>\*</sup>All confirmed positives are depicted on Oregon EAB Web Experience Map

## OregonEAB.com



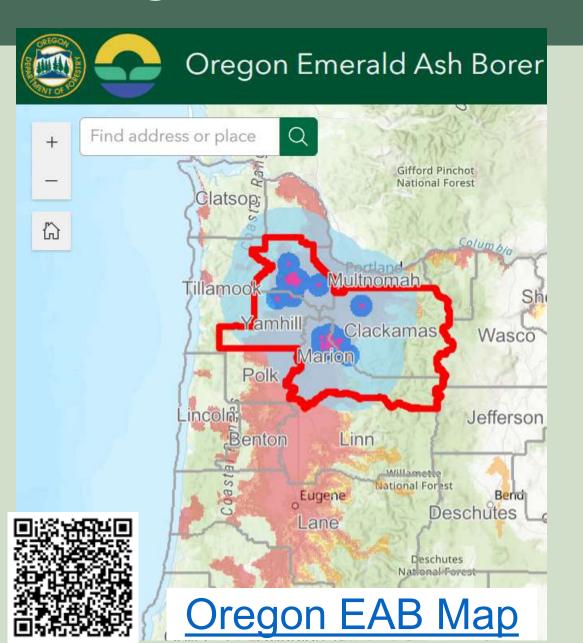


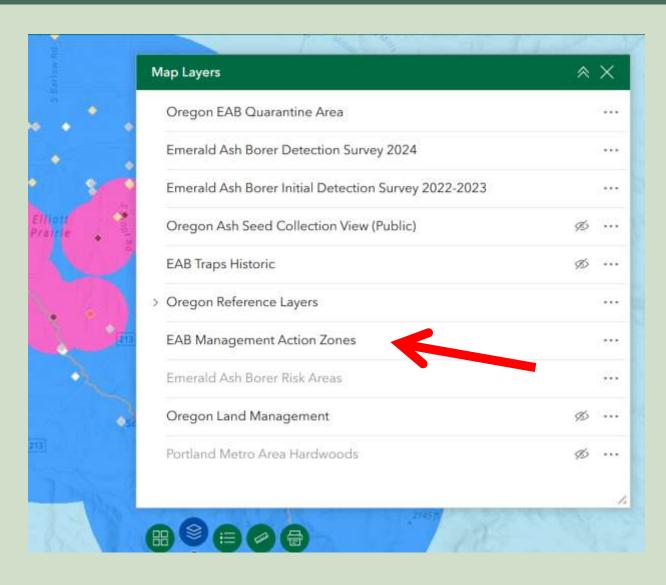




### OregonEAB.com

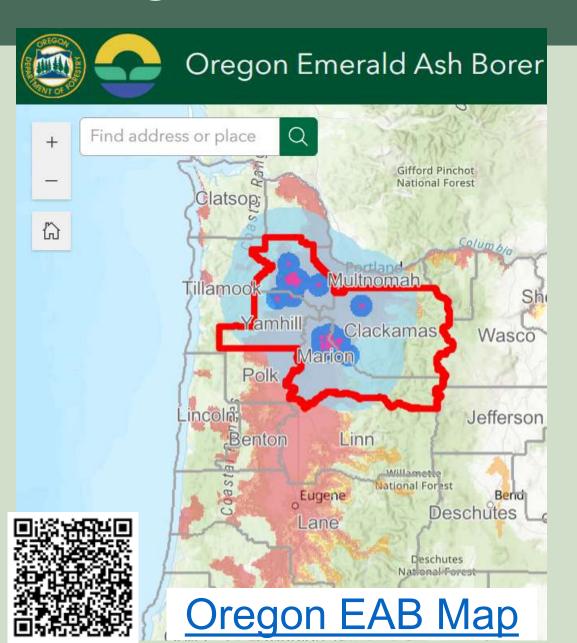


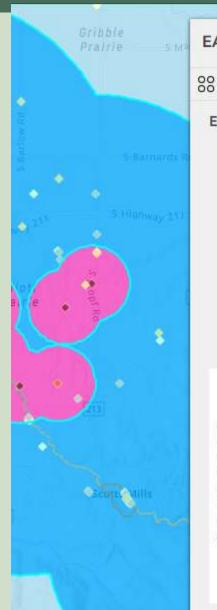




### OregonEAB.com







#### EAB Expansion Area (5 miles)

⊕ Zoom to

#### EAB will be moving into this area or may be present already

- Inject selected ash trees with insecticide and remove untreated ash trees, especially those that will pose a hazard.
- · Replace with trees not susceptible to EAB. Destroy or process any infested trees.
- · State and local partners may conduct girdled tree surveys and EAB trap surveys, as resources allow.

#### Management action zones\*

#### **Priority Actions** Don't move firewood or raw ash wood Inventory ash trees Survey trees for EAB Destroy\process infested trees Remove\replace trees Inject trees with insecticide Conduct EAB trap surveys (agencies)

1	EAB Infested	EAB Expansion	EAB Alert
	V	1	1
1		1	1
1	V	1	1
1	V	1	
1	4	1	1
1	4	1	1
ı		1	1

For all management areas: DO NOT MOVE FIREWOOD or raw ash wood.

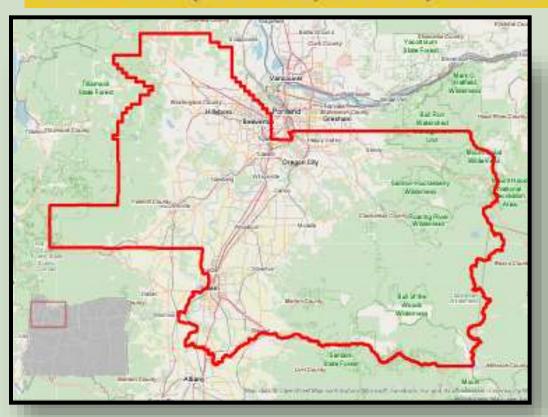
### **Active Quarantine**



# QUARANTINE ALERT



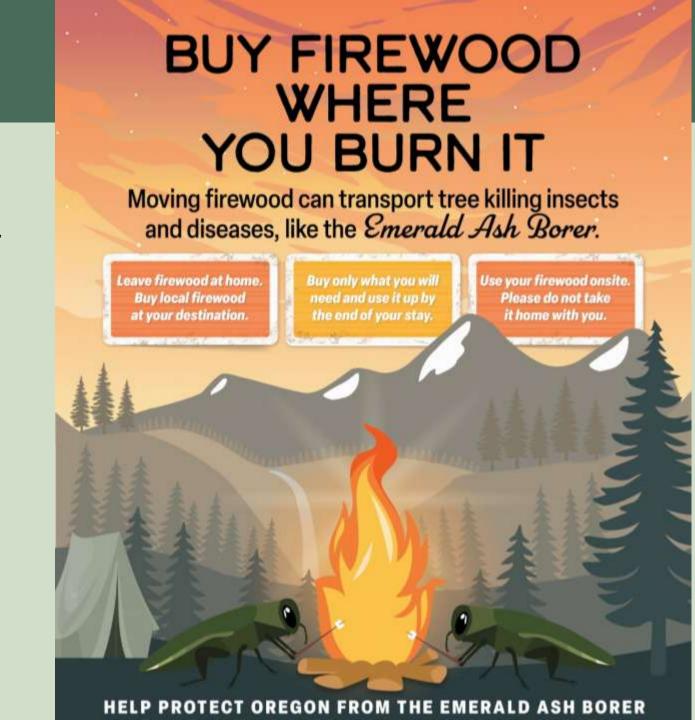
WASHINGTON, YAMHILL, MARION, CLACKAMAS COUNTIES, OREGON



- Restricts movement of ash, olive material (e.g., logs, nursery stock, chips, etc.)
- Requires treatment (e.g. chip < 1") and compliance agreement to move material outside quarantine
- Limits ash tree removal and pruning to October 1 – April 30

### **Public Education**

- You can help slow the spread of EAB: don't move firewood!
- Follow the quarantine for ash material
- Stop planting ash (for now)

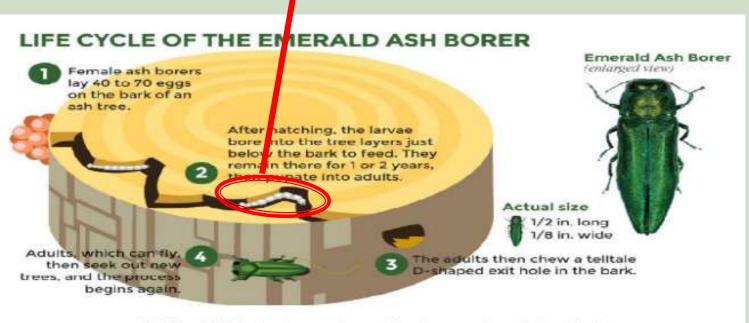


### Why not move ash wood?



EAB larvae spend several months over winter burrowed in sapwood

Solution: chip wood, or heat-treat firewood for 160°F for 60 min







### Oregon's EAB Readiness & Response





2008

Trapping throughout state Federal and state cooperation





2019

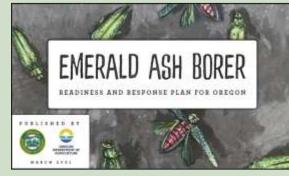


2023

Visual surveying + trapping increases

**SLAM** begins

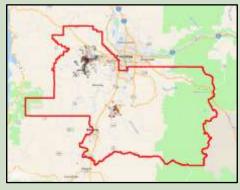
Biocontrol release







2022



2024

## EAB Task Force intiated Sept 2022



- Led by Oregon Dept. of Agriculture
- Coordinated through Oregon Invasive Species Council
- Over 40 agencies and counting

### **Task Force Subcommittees:**

- 1. Survey & Monitoring
- 2. Wood waste & wood utilization
- 3. Research
- 4. Communication
- 5. Local groups (SWCDs, cities)

### Website: OregonEAB.com





### **Management Options**



# Biological control Three species released by ODA

#### In 2025:

359 Releases at 8 sites

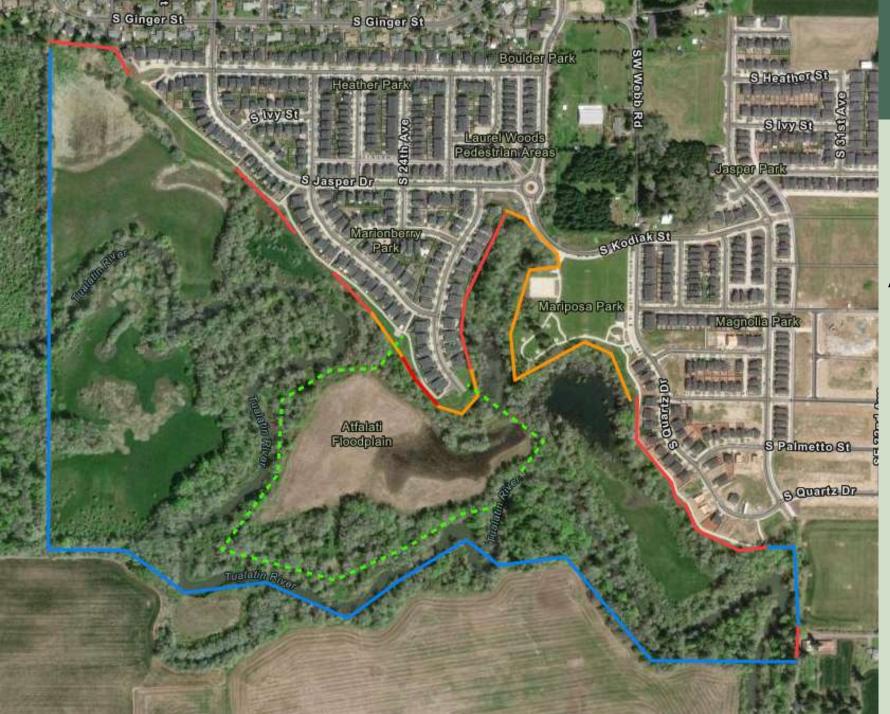
- 6,500 *Oobius argili*
- 6,280 Spathius galinae
- 9,800 Tetrastichus planipennisi



# Systemic trunk injection (Emamectin Benzoate)









# **Example of an Action Plan:**

### High-risk trees

- Felling
- Treatment

### Moderate-risk trees

- Prune and let fail
- Create snag tree

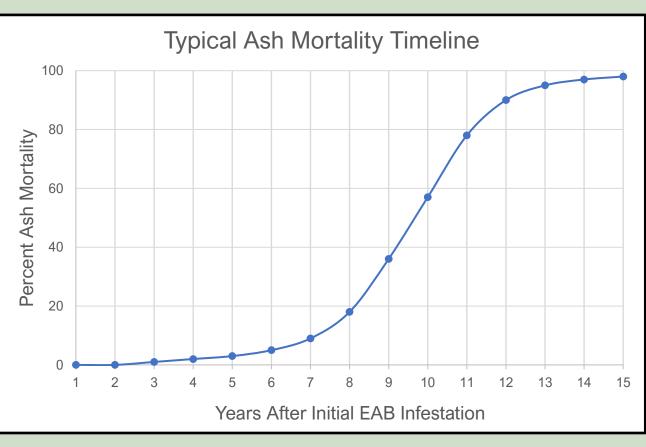
### Low-risk trees

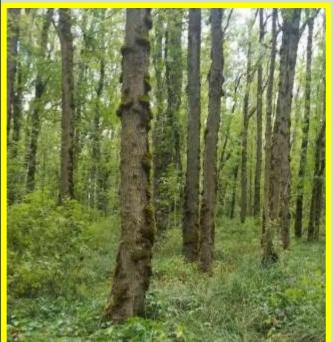
No management

### Q: How many ash will die? A: >90%



### Slowing the mortality, preparing communities is the best strategy





Oregon ash, Ankeny NWR Oregon Dept. Forestry



Dead/dying black ash Virginia Dept. Forestry

### Ash seed for conservation & research









1 million seeds collected & provided to researchers across U.S.





### Oregon's EAB Readiness & Response



- Survey & Monitoring
  - >5,000 trees surveyed
  - >1,500 traps placed
- Training & Outreach
  - >10,000 people educated
  - >50 events per year
- Management when possible
  - "Slowing ash mortality"
  - Biological control
  - Tree injections
  - Gene conservation



# Summary



- Invasive EAB found in Oregon in 2022
- Spreading throughout Willamette Valley
- Significant ash mortality expected in next 10-20 years
- Impacts to stream ecology
- High \$\$ costs in urban forests
- Don't move firewood
- Hope in finding genetic resistance



### EAB Resources - OregonEAB.com



#### **State Resources**

- Oregon's EAB Readiness and Response Plan
- ODF Forest Health Website
- Biological Control for EAB

#### Identification and Fact Sheets

- Ash Identification
- EAB Look-Alikes
- EAB Fact Sheet
- EAB Quarantine
- MOB Fact Sheet

#### **OSU EAB Resources**

- Oregon Ash: Insects, Pathogens, and Tree Health
- Alternatives to Ash in Western Oregon
- Recommendations for Tree Protection Against EAB

#### Management Resources

- 10 Recommendations for Managing Ash
- Managing Northeastern Forests Threatened by EAB
- EAB Management Review
- EAB Insecticide Treatment Fact Sheet

#### Wood Use

- Resource Directory of Wood Waste Professionals
- What To Do with Ash Wood

#### Other Forest Management

- Find an Arborist
- <u>Tree Risk Management</u>

#### Report Invasive Species

 Reporting Potential EAB Insects or Infestations



