



Emerald Ash Borer: A threat to Oregon's ash trees

*Oregon Department of Forestry
Forest Resources Division: Forest Health Unit &
Urban and Community Forestry Assistance Program*

EAB detected in Oregon

- Reported to ODF June 30, 2022
- Joseph Gale Elementary School, Forest Grove
- First discovery of this insect on West Coast



Dead and declining ash trees



EAB adults and larvae found



What is EAB?

- Woodboring beetle
- *Agrilus planipennis*
- Larvae girdle trees
- Host trees species:
 - ***Fraxinus* spp. (Ash)**
 - Cultivated olive
 - White fringetree
- Has never been eradicated



What does EAB look like?

- Slender, approx. ½” long
- All green
- No lines or sculpturing on “back”

EAB



NOT
EAB



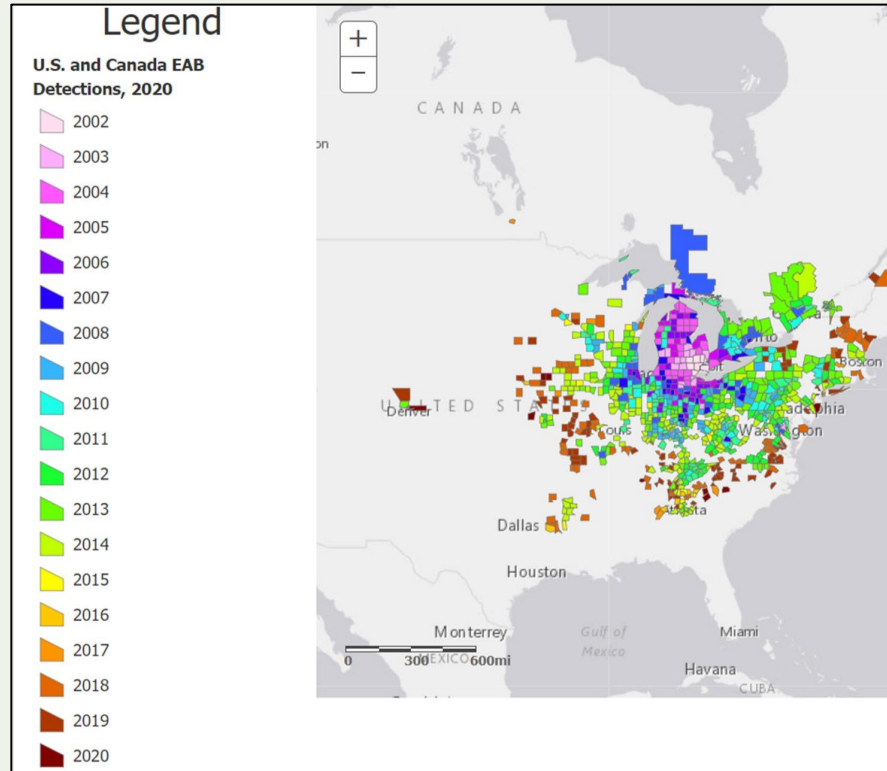
Please note: these images and the text have been enlarged for detail.

7/2022



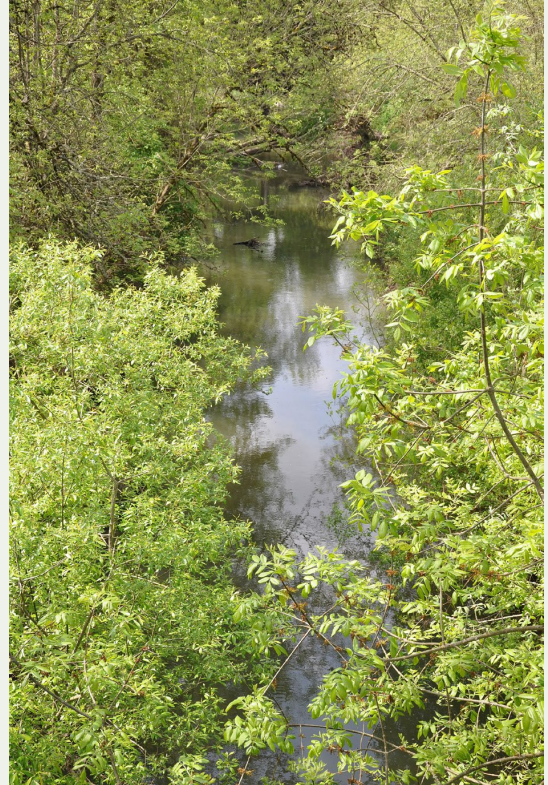
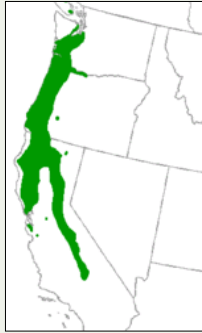
U.S. introduction and spread

- Native to E. Asia
- 2002: Detroit, MI
- 2013: Colorado
- 2019: 33 states
- **100+ million trees killed**
- 2022: Oregon



Oregon ash (*Fraxinus latifolia*)

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

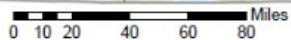
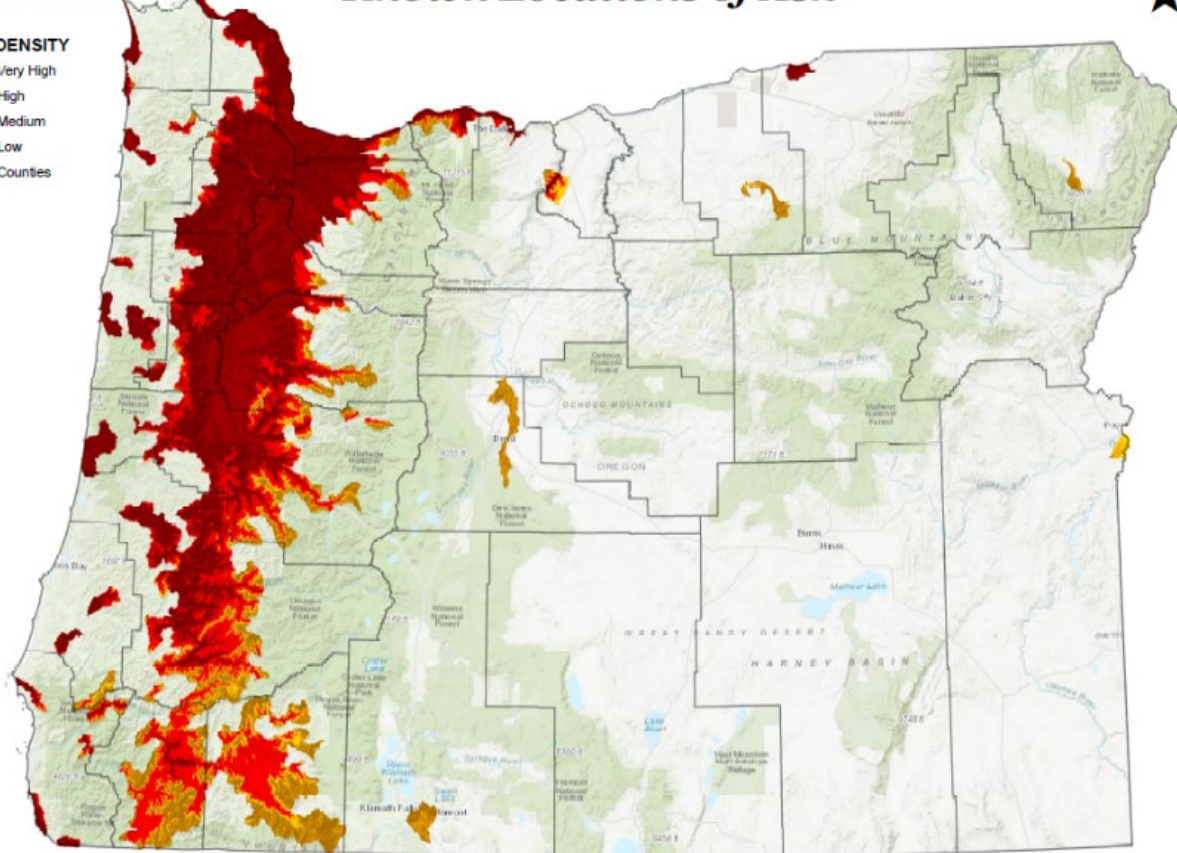
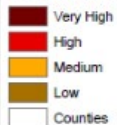




Known Locations of Ash



ASH DENSITY



Date: May 2018

Oregon ash in riparian area

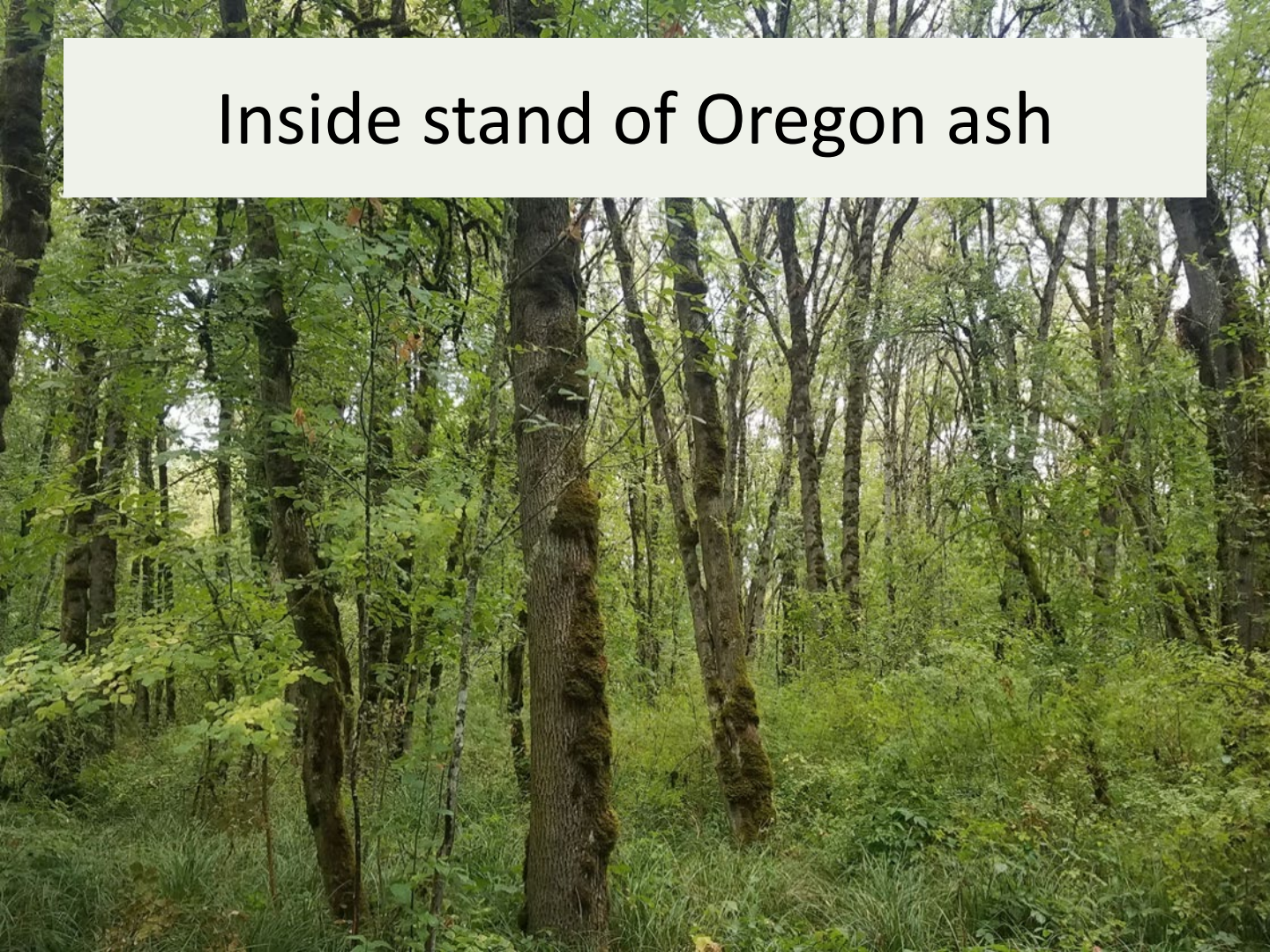


80% of Oregon ash grows below 1,000'

Oregon ash in Willamette Valley



Inside stand of Oregon ash



Likely long-term costs of EAB

- **Ecological:**
changes in water quality, species composition...
- **Economic:**
Urban tree removal & replacement, property value losses, timber...

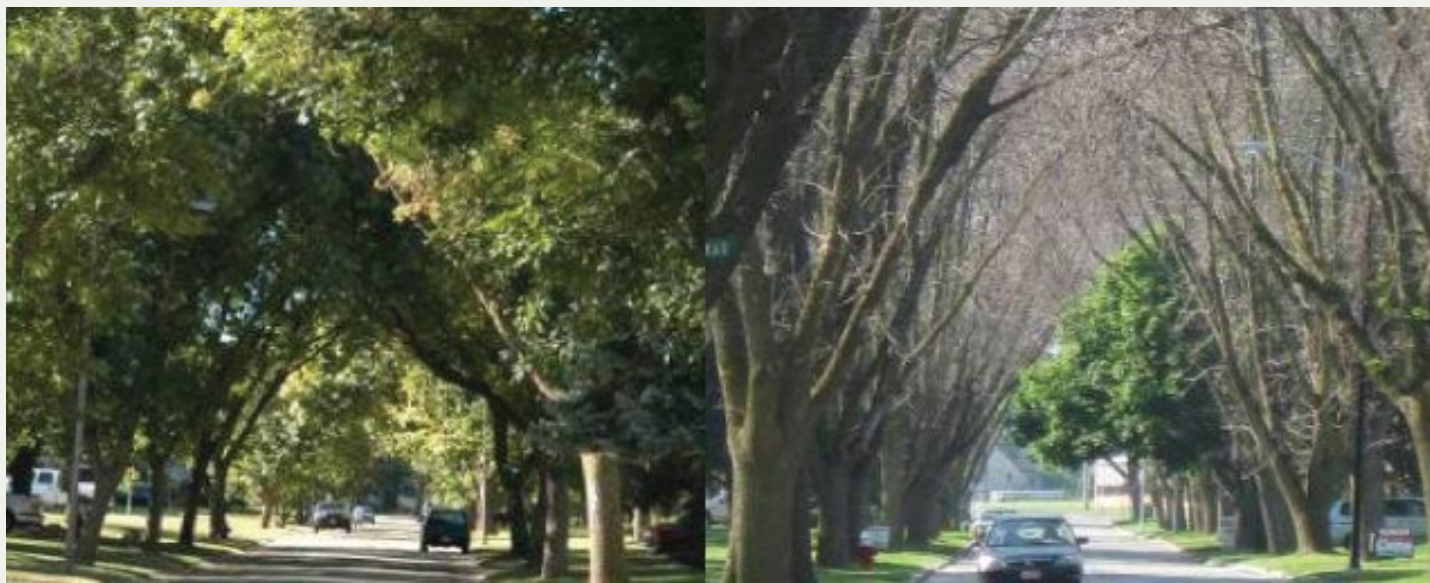


TOLEDO STREET BEFORE AND AFTER EMERALD ASH BORER

BEFORE: JUNE 2006

PHOTO COURTESY OF DAN HERMS, OSU

AFTER: AUGUST 2009



Portland Street Tree example:

- 4.8%, or 72,000 ash street trees
- *\$49M total cost to for removal and replacement*



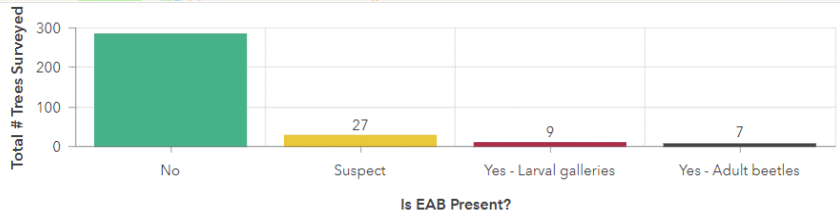
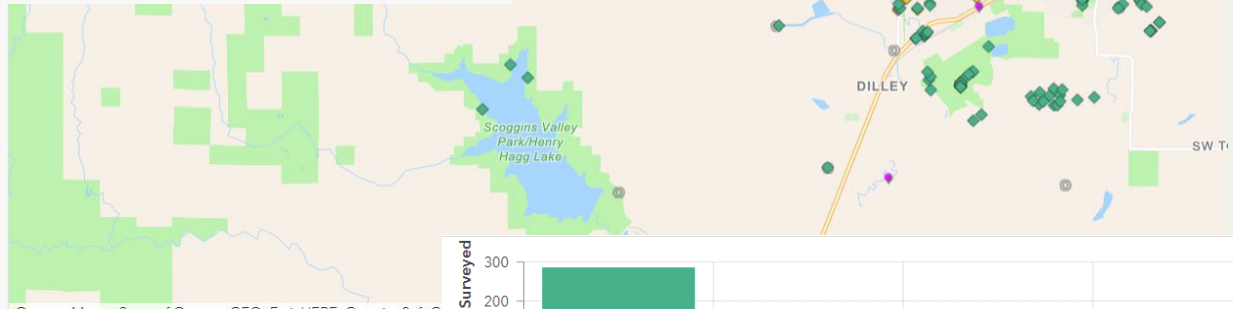
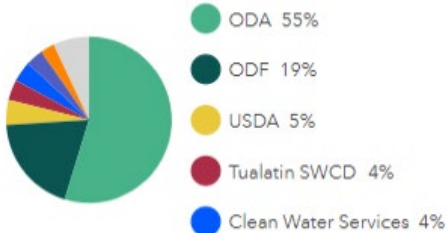
Status update:



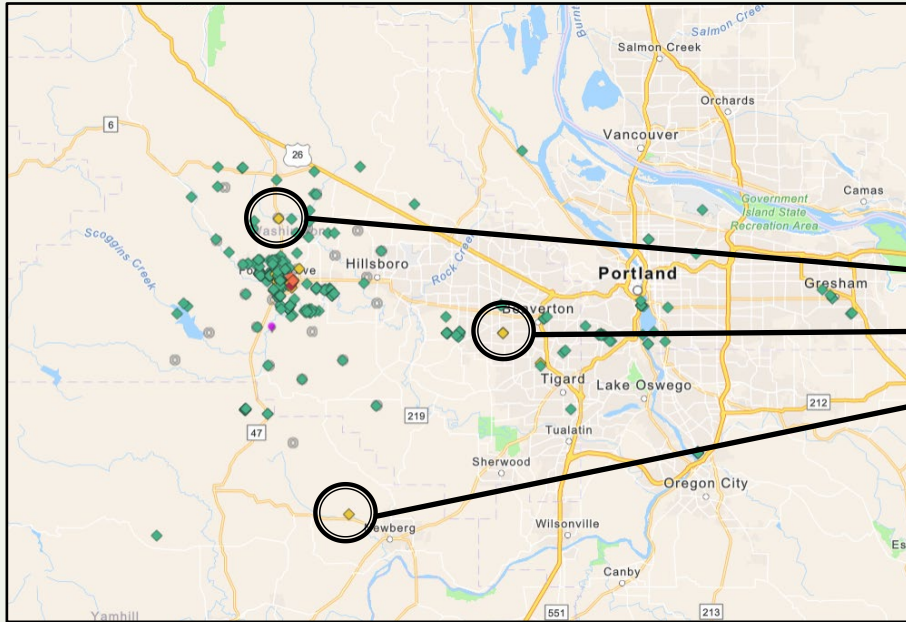
Emerald Ash Borer in Oregon: Initial Detections Dashboard

Initial Detections of EAB from Visual Survey

Organizations Reporting



Status update:



Suspected
EAB

Response

- 1) 2013-2016 statewide EAB surveys (~1,000 traps)
- 2) 2015 Oregon Forest Pest Detectors with OSU (>500 professionals trained on EAB detection)
- 3) 2021 EAB Response Plan
- 4) 2019-2022 Ash seed collection (~1 million seeds for genetic conservation & resistance)



What now?

- Temporary quarantine in Forest Grove (ODA)
- Ongoing monitoring for new infestations
- Establishment of biocontrol starting spring 2023
- Task Force Subcommittees:
 1. Survey & Monitoring
 2. Wood waste & wood utilization
 3. Training & Technical assistance
 4. Integrated Pest Management
 5. Research
 6. Communication
 7. Funding



General guidance

- Know how to ID ash and signs and symptoms of EAB
- Take stock of ash locations and monitor for EAB
- EAB generally moves about 10 miles a year, be aware of which counties are infested
- Remove trees when infestation detected and chip onsite
- Emamectin benzoate to protect uninfested trees
- Plan for replacement with climate change-adapted tree species



Tree movement and disposal

LIFE CYCLE OF THE EMERALD ASH BORER



John Vanvig 2016 – <http://remagazine.coop/electric-cooperatives-ash-borer-beetle/>

EAB spends significant time in sapwood



Pest free...

- Chipped
- Kiln-dried
- Fumigated
- Incinerated



Oregon laws and EAB

Timber harvest of Oregon ash must comply with...

- **ODA quarantine rules (OAR 603)**
- **ODF Forest Practices (OAR 629)**
 - Notification of operations (FERNS)**
 - Riparian rules**

****Plan for Alternate Practice for FPA forest health exemption***



What can be replanted?

In other places, could include:

- Cottonwood
- Big-leaf maple
- Oregon white oak
- Western redcedar



Resources

EAB fact sheet:

<https://www.oregon.gov/odf/Documents/forestbenefits/fact-sheet-emerald-ash-borer.pdf>

EAB look-alikes:

<https://www.oregon.gov/oda/programs/IPPM/SurveyTreatment/Documents/EABLookAlikes.pdf>

Ash ID:

<https://extension.oregonstate.edu/gallery/recognizing-ash-trees-oregon-washington-northern-california>

Report potential infestations:

<https://oregoninvasiveshotline.org/>



ClimateSmart Award

Single, statewide, annual gold and silver awards

PURPOSE: Recognizes landowners/managers, researchers, operators, etc. that are utilizing climate change-adapted practices, or developing innovative methods for carbon capture, retention, or reduced release. The larger scale intention is to incentivize better climate and carbon practices as part of the Oregon Department of Forestry's (Department) [Climate Change and Carbon Plan](#).

OBJECTIVES:

- A. ClimateSmart forestry in silviculture
- B. Fire management, response, and fire / smoke adaption
- C. Forestlands climate resilience and ecological function restoration
- D. Carbon reduction or capture in operations
- E. Innovative research or products that reduce emissions and / or increase climate resilience