OREGON TREE HEALTH THREATS

September 2024

Square miles known to be infested with EAB:

Forest Grove - 10.4 Butte Creek/Pudding River - 14.2

NOTE: *ODA has only just begun to survey Marion, Yamhill, and Clackamas counties. It is highly likely that our preliminary data does not encompass the full extent of the Butte Creek/Pudding River infestations. Over the next few weeks the infestation area size we report will continue to grow as we complete our surveys. This will not be because EAB has spread, it will merely better represent where EAB has established itself.*

This monthly newsletter gives updates and resources on emerging threats to the health of Oregon's trees in natural and managed landscapes. It is published by the Oregon Department of Forestry in collaboration with other state, regional, federal, Tribal, and local agencies and organizations. To subscribe, email jim.gersbach@odf.oregon.gov

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ODA confirms EAB has been found in three new Oregon counties

In August the Oregon Dept. of Agriculture received laboratory confirmation from the USDA Animal Plant Health Inspection Service (APHIS) that emerald ash borers are in Yamhill, Marion and Clackamas counties. With the infestation in Washington County, this brings to four the number of Oregon counties known to have EAB.

Earlier this year, ODF and USDA APHIS distributed 197 traps to landowners across the Willamette Valley to monitor for EAB outside of the infested area around Forest Grove in Washington County.

Jake Downer, who works for Arbormetrics, a contract firm of Portland General Electric's, recently took a class to learn to recognize the signs and symptoms of EAB infestation. Only weeks after taking the class, put on by ODA, Downer noted such signs in an ash tree in

eastern Marion County and reported it to the Oregon Invasive Species Council hotline at 1-866-INVADER.

A subsequent search of the area by ODF and ODA found EAB in several Oregon ash *(Fraxinus latifolia)* east of Woodburn along Butte Creek. Ash trees on the Clackamas side of Butte Creek and in the nearby Elliott Prairie area were also found to be declining due to EAB infestation. Several trees along Butte Creek showed serious canopy decline, indicating that the somewhat inaccessible site may have started independently from the one in Forest Grove.

In Yamhill County, a single adult EAB was found in one trap in the Gaston area. The site is only seven miles from Forest Grove, a distance easily flown by adult EABs in search of ash trees to lay their eggs on.

After the discoveries, ODF and ODA did visual surveys to determine how big an area might be infested around the new sites. The new discoveries increase the total area known to be infested to 24.6 square miles.

If you live in or near these counties, want to learn more about EAB, and are contemplating an appropriate response, check out: Managing Emerald Ash Borer in Washington State. This 8-page brochure is a helpful resource for people just coming to terms with having EAB nearby.

Emerald ash borer (EAB) quarantine expands in response to new detections in Washington, Yamhill, Marion, Clackamas Counties

The Oregon Department of Agriculture (ODA) has expanded the EAB quarantine per the Oregon Administrative Rule (OAR 603-052-1075) on ash, white fringetrees, and olive tree material in the three counties with newly confirmed infestations of EAB (Yamhill, Marion and Clackamas). This highly destructive wood-boring pest could be spread by the tree parts and wood of these restricted trees.

Please read the EAB Quarantine Alert for more information on quarantine and how to slow the spread of EAB. If you have any questions, please email us at EAB@oda.oregon.gov. For more information about EAB, visit www.OregonEAB.com.

For a guide on EAB Look-alikes, please visit this link: EAB Look-alikes guide

For those interested in starting a compliance agreement with ODA to move nursery stock of ash, olive, or white fringe trees (which are regulated materials under ODA's EAB quarantine) out of the above counties, follow this weblink: oda.direct/EAB_Nursery to learn more from ODA's Nursery program.

Free EAB workshop for arborists is being held on Sept. 13 in Hillsboro

ODF is hosting a full-day workshop on Friday, Sept. 13 for professional arborists covering management of ash and EAB in natural areas. This event is co-hosted by Clean Water Services, Tualatin Soil and Water Conservation District, City of Hillsboro, and the Pacific NW chapter of ISA. Attendees will learn

about EAB and Oregon ash biology and ecology, practical challenges of working in natural riparian areas, and tailoring management plans to different types of landowners with varying objectives. There will also be a field component for attendees to see and experience ash and EAB management at Jackson Bottom Wetlands Preserve.

Time: Doors open at 8:30 a.m. Program runs 9 a.m. to 2:30 p.m.

Location: Clean Water Services – Tualatin Room,2550 S.W. Hillsboro Highway

Attendees will be eligible to receive CEUs through both ISA and Society of American Foresters. Registration and more info can be found here: https://pnwisa.org/events/EventDetails.aspx?id=1884309&group=

Oregon white oaks are being irrigated in test to see if watering reduces risk of Mediterranean oak borer infestation

ODF's Forest Entomologist Christine Buhl reports that her agency in collaboration with Reed College and the City of Wilsonville is testing irrigation of Oregon white oaks *(Quercus garryana)* as a preventive strategy against Mediterranean oak borer (MOB).

"Although Oregon white oak is a drought-tolerant tree, Oregon has faced ongoing, intensifying droughts. We're interested in learning if these native oaks may benefit from supplemental irrigation to increase resistance or tolerance to MOB," Buhl said.

In July, supplemental irrigation was provided to Oregon white oaks in a known infestation area in a suburb of Wilsonville. Aaron Ramirez, PhD, collected pre- and post-irrigation measurements of tree water potentials from leaves in canopies to determine how much water was absorbed by the trees. These trees will also be monitored for MOB infestation and the results made public to help with oak management strategies.

Left: *Aaron Ramirez collects leaf material from an Oregon white oak in the Wilsonville area to test how effectively water is being absorbed and distributed to the top of trees.*

North Dakota has become the 37th state infested with EAB

The North Dakota Dept. of Agriculture has announced that emerald ash borer has made its way to this state on the northern Great Plains. Adult EAB were collected from a trap placed in LaMoure County in SE North Dakota west of Fargo and east of the capital city of Bismarck. North Dakota agriculture staff

also collected larvae from the site. The detection is the first in North Dakota, which becomes the 37th state where EAB has been detected. Ash trees are among a limited number of species that can grow in North Dakota, where winter low temperatures can be as much as 40 degrees Fahrenheit below zero.

Estonia is sending delegation to study Oregon's EAB response

Officials from the Estonian Agriculture and Food Board in the Baltic nation of Estonia will be meeting in September with representatives of state, local and federal agencies responding to the EAB outbreak in Oregon. The Oregon EAB Interagency Task Force led by the Oregon Dept. of Agriculture is planning field trips to sites where slow-the-spread efforts are happening, as well as in-depth discussions of everything from advance planning and detection efforts to education and outreach, quarantines, funding and wood-waste handling recommendations. EAB is not yet present in Estonia but is spreading nearby in Russia and Ukraine.

Chinese fringetree appears resistant to EAB

Researchers at Ohio's Wright State University made a terrifying discovery in 2014; the invasive emerald ash borer was infesting American fringetrees (*Chionanthus virginicus*). This was concerning, but not entirely surprising since fringetrees are in the same family – Oleaceae – as ash trees. They then went to work testing what species other than ash (*Fraxinus*) might be susceptible to emerald ash borer infestation.

The American fringetree's Asian cousin, the Chinese fringetree *(Chionanthus retusus), was a high priority for testing*. After testing, the researchers found that Chinese fringetrees didn't become infested and EAB larvae could not complete their lifecycle on the tree. A link to the research abstract is at https://pubmed.ncbi.nlm.nih.gov/26314014/

This is good news in Oregon because since the early 2000s Chinese fringetrees have been planted by cities and towns in growing numbers to reduce reliance on short-lived and disease-prone trees in the rose family, such as flowering plums, pears, cherries and crabapples. Portland's Street Tree Inventory, for example, showed at least 233 Chinese fringetrees have been planted in public right-of-ways in that city.

Able to be planted under powerlines, the Chinese fringetrees are welcomed by homeowners for their showy white flowers in spring. The blizzard of flowers the tree covers itself with gave rise to the Latin name for their genus – *chion* meaning "snow" and *anthus* meaning "flower." Nurseries have introduced a number of attractive cultivars in recent years.

Publications

Modelling impacts to water quality in salmonid-bearing waterways following the introduction of emerald ash borer in the Pacific Northwest, USA. Maze, D., Bond, J. & Mattsson, M. *Biol Invasions* (2024). https://doi.org/10.1007/s10530-024-03340-3

Alternatives to Ash in Western Oregon: With a Critical Tree Under Threat, These Options Can Help Fill Habitat Niche. G. Kral, and D.C. Shaw. 2023. OSU Extension EM 9396. https://catalog.extension.oregonstate.edu/em9396

Oregon Ash: Insects, Pathogens and Tree Health by Oregon State University Extension (also available in Spanish at this same website)
https://extension.oregonstate.edu/pub/em-9380

Wood Decay Fungi Associated with Galleries of the Emerald Ash Borer by the University of Minnesota and Uruguay's *Instituto Nacional de Investigación Agropecuaria*
Forests | Free Full-Text | Wood Decay Fungi Associated with Galleries of the Emerald Ash Borer (mdpi.com)

Useful links for more information

Mediterranean oak borer fact sheet
https://www.oregon.gov/odf/Documents/forestbenefits/fact-sheet-mediterranean-oak-borer.pdf

EAB monitoring guidance
https://www.oregon.gov/odf/forestbenefits/Documents/eab-monitoring-guidance.pdf

Oregon Dept. of Agriculture
https://www.oda.direct/EAB

Oregon Dept. of Forestry
https://www.oregon.gov/odf/forestbenefits/pages/foresthealth.aspx

OSU Extension
https://extension.oregonstate.edu/collection/emerald-ash-borer-resources

Emerald Ash Borer Information Network, a collaborative effort by the USDA Forest Service and Michigan State University
www.emeraldashborer.info

USFS Forest Health Protection
https://www.fs.usda.gov/foresthealth/index.shtml