

# OREGON TREE HEALTH THREATS



April 2024

**Square miles known to be infested with EAB: 10.4**

*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 with the collaboration of other state, regional, federal, Tribal, and local agencies and organizations. To subscribe, email [jim.gersbach@odf.oregon.gov](mailto:jim.gersbach@odf.oregon.gov)*

## In this issue:

- *Removal of EAB infested trees gets underway in Forest Grove*
- *Oregon's EAB strategy is in keeping with global best management practices*
- *ODF and USDA APHIS are coordinating an early detection trapping survey for EAB*
- *Pocket EAB guides still available in English and Spanish versions*
- *New hires at ODF add to urban forestry team's EAB knowledge and experience*

## ODF grant helps ODA remove trees infested with EAB in Forest Grove

Residents of Forest Grove whose street trees have been infested with emerald ash borer are having those trees removed at no cost this month. The Oregon Dept. of Agriculture is using funds from the Oregon Dept. of Forestry to contract for the removal work, which should be completed by the end of April. Replanting is planned to happen this fall or winter and will be covered by Inflation Reduction Act funds awarded to ODF's Urban & Community Forestry program by the USDA Forest Service. About 80 infested ash trees in all are being felled and destroyed before the emergence of adult beetles. Adult emergence is estimated this year to begin around the first week of June.

The removals should help slow the spread of EAB by reducing the number of larvae that turn into adults that can fly out to infest new trees. Two streets heavily planted with ash will lose the most trees – 13<sup>th</sup> and 22<sup>nd</sup> streets.



Because of the damage the beetles have already done to infested trees in Forest Grove, it was deemed too late for treatment to be effective. But in nearby Cornelius, ODF is working with residents to identify high-value trees that can be treated with the insecticide emamectin benzoate this spring to protect them from infestation.

## ***Annual Review of Entomology* recaps global EAB research, best practices**

Volume 69 of the *Annual Review of Entomology* published in January 24, recaps EAB management and research worldwide. Reading the article, [\*Emerald Ash Borer Management and Research: Decades of Damage and Still Expanding\*](#), shows that Oregon has been following best management practices for trying to slow the spread of this invasive insect. Two that stand out are:

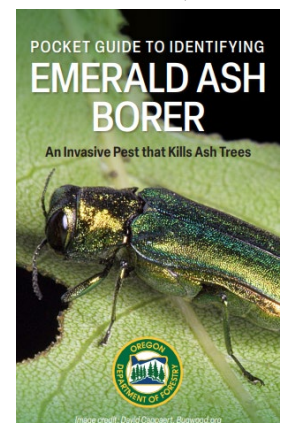
- ODA has collaborated with the federal Animal and Plant Health Inspection Service (USDA-APHIS) to release tiny stingless parasitoid wasps as biological control agents near Forest Grove.
- ODA has also been girdling selected ash trees in a ring around Forest Grove to attract females to lay their eggs on those stressed trees. This concentrates the egg-laying on the girdled trees. To track EAB spread into new locations and trees, entomologists can look for larvae developing inside the girdled trunks. Healthy ash nearby are treated by injecting the trunk with the insecticide emamectin benzoate to knock down any populations of EAB starting to appear in the area. The girdled trees are felled and destroyed, eliminating EAB larvae. This effort creates a population sink, helping cut down on the overall numbers of EAB in the given area and slowing its spread.

Other interesting research findings from Europe and Asia include:

- EAB outbreaks in China occur mostly in plantations or urban plantings of susceptible non-native ash and are rare in natural stands of resistant native Chinese ashes.
- China has planted many EAB-susceptible non-native North American and European ash trees in its urban forests. This has led to ash mortality in many Chinese cities. For example, EAB damage in Beijing increased tenfold from 2010 to 2017.
- Exactly how Asian ash trees resist EAB is not perfectly understood, but may involve production of biochemicals in the phloem that are toxic to EAB larvae.
- Although EAB is native to the mixed conifer-hardwood forests of Russia's far eastern Pacific region, it was not found west of the Urals. Like China, many North American ash species have been planted in Russian cities. Once EAB made its way to Moscow, it started infesting and killing those susceptible ash trees. From Moscow the pest has now spread to at least 20 administrative regions in western Russia, as well as Ukraine, with fears it could escape into the rest of Europe.
- Although a secondary host, olive trees are widely planted in many parts of southern Europe, North Africa, and the Middle East. Loss of those olive groves would be economically and culturally devastating.

## **Pocket guides for identifying EAB still available from ODF**

ODF's new pocket guides for identifying EAB and signs of infestation flew off the shelves, requiring a second printing. The guides are in Spanish or English and have photos to help people identify ash trees, the signs and



symptoms of infestation, and EAB itself. Contact Lilah Gonen ([lilah.gonen@odf.oregon.gov](mailto:lilah.gonen@odf.oregon.gov)) to request printed copies.

## EAB early detection traps are now available to local government and non-profit organizations



ODF and USDA Animal and Plant Health Inspection Service (APHIS) are working in coordination with local federal, state, and municipal organizations to conduct an early detection trapping survey for EAB in western Oregon. The goal of this survey is to investigate the leading edge of the EAB infestation around Forest Grove and to monitor ash stands across western Oregon for emergent satellite populations of EAB. Early detection of EAB facilitates improved management options including proactive treatments and the identification of additional biological control release sites. **Additional**

**trapping supplies are available to organizations with the capacity to place and monitor traps as a part of the statewide survey.** For more information, or to obtain traps, please contact ODF [Invasive Species Monitoring](#) Specialist Emily Martin at [Emily.J.Martin@odf.oregon.gov](mailto:Emily.J.Martin@odf.oregon.gov).

## New hires in ODF's urban forestry team add deep EAB experience

ODF Urban and Community Forestry has hired Evan Elderbrock and Lilah Gonen into newly created permanent positions as community assistance foresters. Both will continue working with community partners on EAB planning and mitigation until replacements can be found.

At the same time, ODF has welcomed two more new community assistance foresters who have extensive backgrounds in EAB work. All four positions were made possible by state and federal grants ODF received to bolster its capacity to deal with urban forestry issues, such as pests, diseases, and climate change.

Jennifer Killian comes to the agency from her role as urban forester for the City of Corvallis. Killian worked on EAB management during the time it was arriving in Wisconsin. She was one of many urban foresters who helped create Oregon's EAB Readiness and Response Plan.

Alison Herrell recalls coordinating removal of 11,000 EAB-infested ash trees in the Chicago area earlier in her career. More recently she worked with Rainbow Ecoscience educating the public about effective treatment options for saving ash trees from EAB.

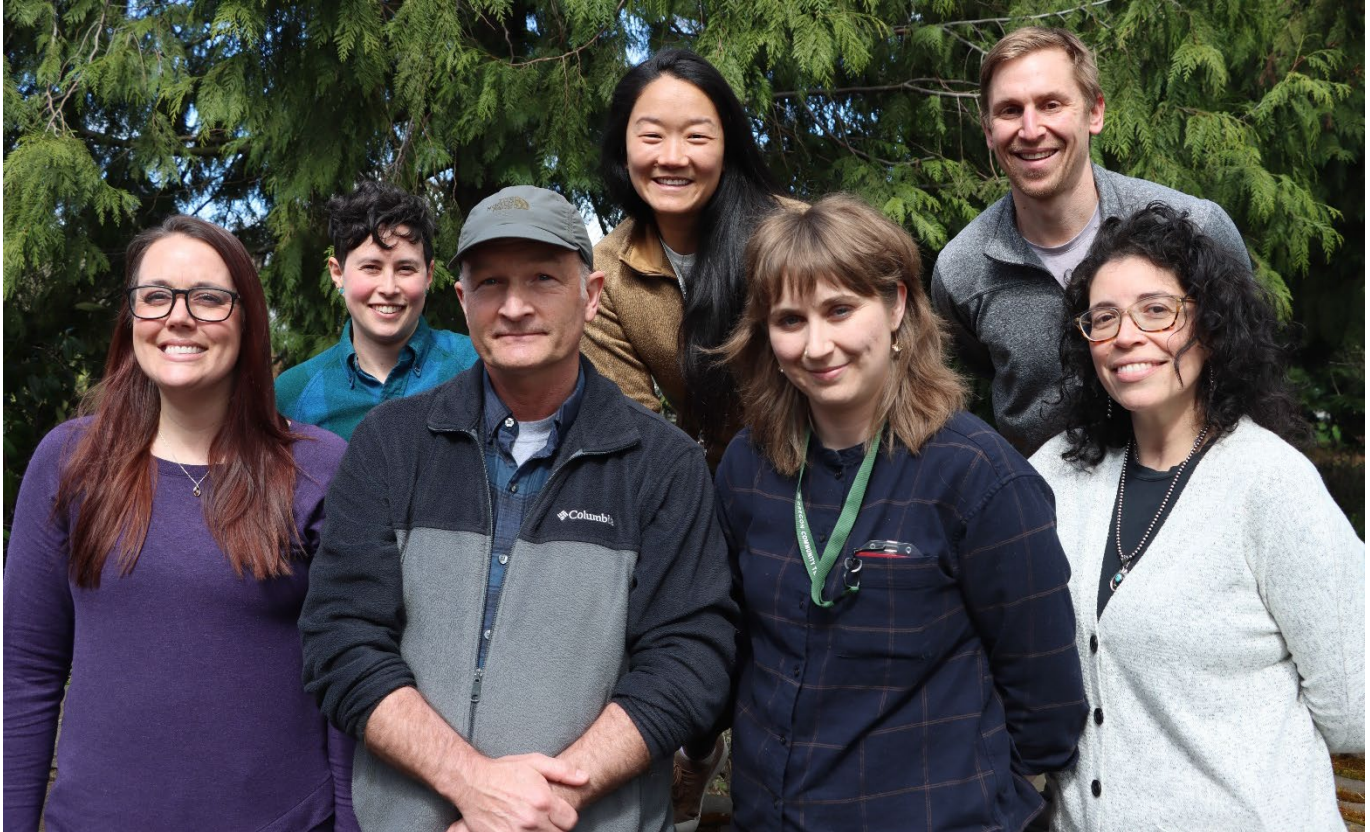


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A fifth new member of the team is Hilary Olivos-Rood, who will administer \$26.6 million in state and federal grants ODF has received to help Oregon cities, towns and Tribal governments address urban forestry issues.

*Photo below: ODF's newly expanded urban forestry team (from left Jennifer Killian, Lilah Gonen, Scott Altenhoff, Alison Herrell, Brittany Oxford, Evan Elderbrock and Hilary Olivos-Rood.)*



## Publications

*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 \(mdpi.com\)](https://www.mdpi.com/forests)



## 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](http://www.emeraldashborer.info)

USFS Forest Health Protection

<https://www.fs.usda.gov/foresthealth/index.shtml>

