OREGON TREE HEALTH THREATS

January 2024

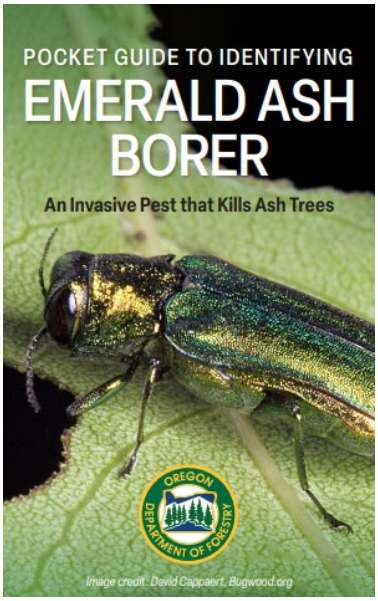
Square miles known to be infested with EAB: 10.4

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

In this issue:

ODA confirms olive trees can be infested with EAB

Olive trees, which are in the same family as ash (Oleaceae) can be infested by emerald ash borers in outdoor settings. That's what ODA researchers working with the University of Delaware and the U.S. Dept. of Agriculture's Agricultural Research Service have found. In field trials, adult EAB females were able to locate olive trees and lay viable eggs on them. The EAB larvae fed on the trees and were able to develop inside them. In light of this finding, ODA has put olive under the same movement restrictions in place for ash *(Fraxinus)* and American fringetree *(Chionanthus virginicus)* in Washington County. The field trials are still going on, and as more is learned it will be shared with growers and the public.



Pocket guide to EAB now available online

A pocket-sized guide to identifying the signs and symptoms of EAB has been posted online by ODF. Based on a document written by the City of Portland's Urban Forestry staff, the guide has color photos, including of EAB and common look-alikes to EAB to help prevent mis-identification. The guide is formatted to print with a double parallel fold (folded in half, then in half again). You can find and download the guide on the OISC EAB web page or on ODF's Forest Health web page. To request printed copies, please email Evan Elderbrock at evan.elderbrock@odf.oregon.gov or Lilah Gonen at lilah.gonen@odf.oregon.gov

Japanese beetle eradication effort by ODA continues

Oregon Dept. of Agriculture staff have been working to eradicate an outbreak of Japanese beetles (*Popillia japonica*) in Washington County since 2016. ODA is able to report that despite numbers of beetles trapped in 2023 going up last year compared to 2022, they are optimistic because the size of infested areas has fallen sharply, allowing them to concentrate efforts on the remaining pockets.

Japanese beetle is a serious invasive insect pest threatening Oregon and the western United States. The beetle can cause severe damage to over 300 plant species, including many kinds of trees. The leaves of lindens, crabapples, cherry trees, Japanese and Norway maples, pin oaks, crape myrtles and London plane trees among others are all eagerly devoured by Japanese beetles. In areas of the eastern U.S. where it has become firmly established, pesticide use has had to increase to maintain the health and appearance of crops and urban forests.

Photo courtesy of WA State Dept. of Agriculture

ODA began working to stamp out Japanese beetles in Washington County after it trapped 369 of them there in 2016. The next year, the number of beetles trapped soared to almost 24,000 as eradication efforts began. Since then, ODA has coordinated treatment of infested areas with a larvicide that kills Japanese beetles in their larval stage in the soil. As a result, the number of beetles trapped and the size of the area needing treatment have been significantly reduced.

In 2023, ODA treated 2,500 acres for Japanese beetle with the low-risk pesticide Acelepryn. Eradication of several small pockets of beetles allowed the treatment area to be 30% smaller compared to 2022.

ODA trapped 6,399 Japanese beetles in 2023, a significant increase from the number of beetles trapped in 2022. However, most trap catches (~85%) were isolated to a single blueberry farm. Trap catch numbers in areas outside this one farm have continued to shrink, dropping by 35% in 2022. Japanese beetles were first found at the blueberry farm in 2020 but could not be treated in 2021 and 2022. In 2023, however, ODA got permission from the farmer to start treatments. ODA treated the edible plants with a product called Altacor, which attacks Japanese beetles at both the larval and adult stages. Since the infestation was so severe at the farm, four treatments were conducted in 2023: one larval treatment and three supplementary foliar spray treatments.

ODA expects the total number of beetles trapped in 2024 to be much lower as a result of being able to do multiple rounds of treatment at the blueberry farm. The treatment map for 2024 is only 1,315 acres, a 47% decrease from last year. Areas currently infested and being treated in 2024 include Washington, Multnomah, and Clackamas counties, specifically NW, SW, NE Portland, Lake Oswego, and Beaverton. The agency expects at least several more years of treatments will be needed to completely rid Oregon of Japanese beetle.

The year ahead

Here's what you can expect on the EAB and Mediterranean oak borer front in 2024.

Winter

- OSU Extension agents will continue providing EAB and other forestry-related information, classes and outreach.
- Tree School Clackamas in March will have a class on EAB. Registration opens Feb. 6.
- ODA and ODF staff will continue to check trees suspected of being infested to confirm presence or absence of EAB and MOB.
- ODF is helping develop templates for local outreach materials in collaboration with a group of Washington County agencies, such as Clean Water Services, Metro, Tualatin Soil and Water Conservation District and Tualatin Hills Park and Recreation District.
- ODF will begin seeking applications for urban forestry grants, some of which could cover EAB-related costs. These will be primarily focused on historically underserved and disadvantaged communities and groups. Read an FAQ about the grants at this link.
- Trees potentially infested with Mediterranean oak borer (MOB) are being mapped over the winter by ODA and ODF crews and will be verified in spring/summer.
- Plans are underway for ODF and ODA to test emergence trapping this winter/spring to determine when MOB might first become active enough to leave trees.
- Trees infested with EAB can be safely cut down and disposed of until the end of April.

Spring

- ODF will distribute up to 200 monitoring traps to landowners to hang in ash trees in April and May.
- EAB adults typically start to emerge in May or early June.
- ODF and the Institute for Applied Ecology will continue monitoring for EAB at sites beyond Forest Grove.
- The federal agency Animal Plant Health Inspection Service (APHIS) plans on continuing to support ODA's EAB biological control response by providing additional biological control agents, tiny wasps that specialize in attacking EAB larvae, for release at locations with known EAB populations.
- Work will continue to learn more about Mediterranean oak borer in Oregon, including:
    - how far it has spread
    - whether winter tree inspections for MOB are reliable indicators of its presence
    - which oak trees seem most at risk.
- ODA will again be girdling selected ash trees in Washington County, focused around Forest Grove, to lure female EAB to lay their eggs on them.

Summer

- EAB adults continue emerging, with some stragglers as late as September
- After mating, female EAB fly to ash trees to lay their eggs

Fall

- ODA will cut down and check trap trees for signs of EAB and draw new maps of where the insect has spread.
- Trees infested with EAB can be safely cut down and disposed of from October onwards.

OSU Extension trains field agents on EAB

Oregon State University Extension staff work in counties across Oregon where they are an invaluable resource to landowners and homeowners with questions about their plants and animals. To better help Extension staff address questions from the public, OSU is giving those in western Oregon in-depth education about EAB, including the pros and cons of options for treating or removing trees.

ODF staff to teach class on fostering resilient urban trees and backyards

ODF Urban and Community Forestry staff will teach a class March 23 on making yards into healthier, more resilient ecosystems and better habitat for wildlife. The class will be taught as part of the Tree School at Clackamas Community College. Registration opens Feb. 6.

Title: **Fostering Resilient Urban Trees and Backyard Habitats**
When: **Saturday, March 23rd 10:30 a.m. – 12 p.m.**

Urban trees and backyard habitats provide many ecosystem services for both humans and wildlife. Unfortunately, they face unprecedented challenges, from climate change and development to new pests and pathogens. This class will delve into the vital role that urban areas play as a cornerstone of human and ecological well-being. You can engage in conservation efforts by learning how to enhance biodiversity and food webs in your own yard.

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)

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