

# OREGON DEPARTMENT OF AGRICULTURE PEST ALERT

## For more information

If you have questions or would like more information, please visit us at: [ODA.direct/IPPM](https://oda.direct/IPPM)

Monthly tree health and pest updates at: [oregoninvasivespeciescouncil.org](https://oregoninvasivespeciescouncil.org)

To report a possible invasive insect please call:

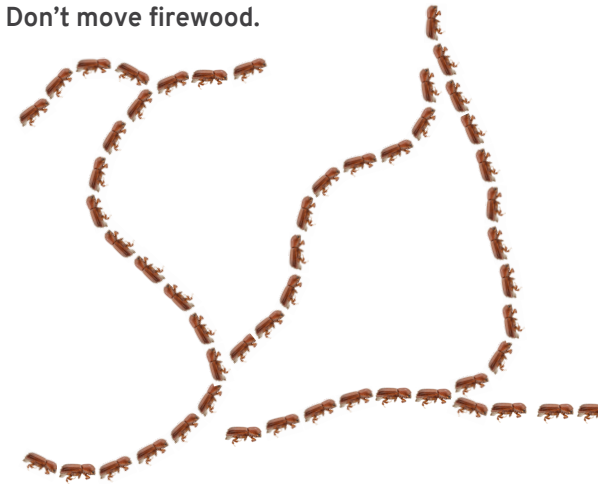
1-800-INVADER or 1-800-468-2337

or visit [oregoninvasiveshotline.org](https://oregoninvasiveshotline.org)

Text by: Josh Vlach, Daniel Mix, and Max Ragazzino

**Help protect Oregon from invasive pests**

**Don't move firewood.**



MOB Adults line up in their galleries  
Allison Monroe, OSU



## MEDITERRANEAN OAK BORER

A Pest of Forests  
and Natural Areas



**OREGON  
DEPARTMENT OF  
AGRICULTURE**



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**Insect Pest Prevention & Management Program**

26755 SW 95th Ave. Wilsonville, OR 97070

503-986-4636 or 1-800-525-0137

[ODA.direct/IPPM](https://oda.direct/IPPM)



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Black fungal stained galleries in the outer wood of a valley oak in California. Image by Bob Rabaglia, USFS.

## Identification

It is unlikely that the beetles will be seen. They are brown, cylindrical beetles about 1/10 of an inch (3mm) long. It is much more likely that their damage to a tree will be found first. The most apparent symptom is black stained galleries about 1/25 of an inch (1mm) wide, that branch through the wood. Trees are often attacked at the top first, causing flagging and branch dieback. Eventually, the entire canopy may wilt and die.

MOB female beetle, mechanical pencil tip for scale  
Image by Curtis Ewing, CAL Fire



## What can I do to help?

Let ODA know right away if you believe you have found MOB. Early detection is vital to preventing this pest from rapidly spreading. You can report an invasive at: [oregoninvasiveshotline.org](https://oregoninvasiveshotline.org)

Infested wood should be disposed of appropriately, by being burned, chipped, or heat treated.

## References

Ewing, C.M. Dimson, B. Nobua-Behrmann, R. Oliver, J. Kabashima. 2020. Pest alert: Mediterranean oak borer, *Xyleborus monographus*. University of California Agriculture and Natural Resources. [www.mobpc.org](https://www.mobpc.org)

Ripley, K, and W. Williams. 2022. Forest Facts: Mediterranean Oak Borer *Xyleborus monographus* (Fabr.). Oregon Department of Forestry. [www.oregon.gov/odf/Documents/forestbenefits/fact-sheet-mediterranean-oak-borer.pdf](https://www.oregon.gov/odf/Documents/forestbenefits/fact-sheet-mediterranean-oak-borer.pdf)

California Department of Food and Agriculture. December 2020. California Pest Rating Proposal. *Xyleborus monographus* (Fabricius): Mediterranean oak borer. Coleoptera: Curculionidae. Current Rating A; Proposed Rating: B.

Mediterranean oak borer

Mediterranean oak borer (MOB), *Xyleborus monographus*, is an ambrosia beetle that feeds on various hardwoods. They transmit a fungal disease that damages and kills trees. It was found in the US for the first time in 2017 and is now in California and Oregon.



Oregon white oak leaf  
Image by Jody Einerson, OSU

Where is it from?

MOB is an ambrosia beetle native to Europe, West Asia, and North Africa. It was first collected in California in 2017 and confirmed in the Napa area in 2019. It was found due to damage seen on multiple species of oak. MOB has now been introduced to North America at least twice.



Pest status

MOB injures oak trees by boring tunnels into the sapwood and introducing fungi. These fungi include species of *Raffaeella spp.* and *Fusarium spp.*, which cause oak wilt. Oregon white oak, *Quercus garryana*, is susceptible to MOB and oak wilt. MOB is known to attack many species in Europe including elm, maple, walnut, and more. Our native oaks do not have a natural resistance to the oak wilt pathogen. Female MOB's can fly to infest new trees, carrying the fungi with them. Early research shows that MOB attacks stressed and dying oak trees and may also harm healthy trees as well.

Until 2022, MOB had only been detected in traps. Only 21 beetles were trapped at seven different sites. In May 2023, the first Oregon white oak was found positive for MOB around Troutdale, Ore. In 2024, MOB-infested trees were found in Wilsonville, Salem, and Portland, Ore.

Life cycle

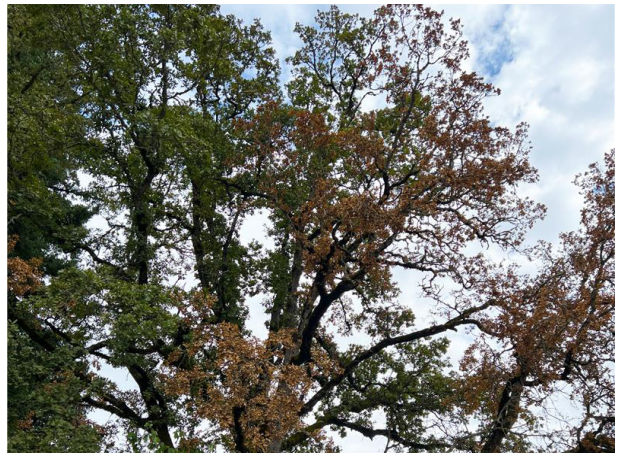


Funnel trap used to detect MOB

Oregon Department of Agriculture and Oregon Department of Forestry are working closely with the USDA Forest Service and Oregon State University to determine where MOB is. ODA and ODF are working with many local cooperators statewide to set traps for finding MOB and how far they have spread in Oregon.

Signs of MOB

Many trees in Oregon may be susceptible to MOB infestations, including Oregon's native white oak. Signs of infestation are crown dieback, wilting of leaves, and individual branch death.



Canopy dieback of MOB infested Oregon white oak.  
Image by Christine Buhl, ODF

Other signs of MOB are wood dust caught on bark ridges, a large amount of round entrance and exit holes about 1/16 of an inch (~1.5 mm) in size, and black stained galleries that fork and cross each other underneath the bark.



Wood dust on oak bark from MOB boring holes.  
Image from Oregon Department of Forestry



MOB boring holes on an oak branch  
Image by Bob Rabaglia, USFS

How does it spread?

Many invasive insects, including MOB are very hard to see, making it easy for people to accidentally move them to other areas. While female MOB can fly miles to a new host tree, moving untreated wood can spread MOB much faster than they would naturally.

Prevention

Do not move firewood. Moving untreated woody materials such as oak green waste, European wine barrels, solid wood packing material, pallets, firewood or other raw wood products will put Oregon at risk.



Inspect oak trees for signs of borer holes and reject any material that looks to be infested. Wood or trees that are infested should be burned, finely chipped, or heat treated. Please report infested oak trees to ODA.