Emerald ash borer monitoring
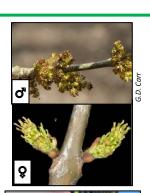
Monitoring process and resources for emerald ash borer (EAB, *Agrilus planipennis*):

1) Is it ash?
2) Assess the exterior symptoms (thinning, topkill, epicormic sprouts, etc.)
3) Look for D-shaped exit holes
4) Adults are present outside the tree in the summer and larvae are found beneath the bark, but there are many look-alikes!

Ash ID

Ash trees (*Fraxinus* spp.) have:

✓ compound leaves consisting of 5-7 leaflets
✓ opposite branching
✓ lattice-like bark as trees age
✓ flowers clustered on male trees and single on female trees
✓ single-winged seeds (samaras) on female trees

G.D. Carr

Trees and bushes commonly confused with ash include:

✕ walnut   ✕ boxelder
✕ locust   ✕ sumac
✕ mountain ash   ✕ elderberry
✕ tree of heaven

double-winged seed

Patrick Breen

EAB signs and symptoms

Signs and symptoms of drought, other insects and diseases may be confused with or co-occur with EAB infestations. Adults, larvae, feeding galleries and exit holes of other beetles can also be confused with EAB.

Insect

- EAB is ⅜ to ½ inch long; slender; entirely green; smooth without ridges, hairs, bumps. Adults emerge from trees and are present only June-Aug; larvae are under bark and in sapwood most of the year.
- D-shaped exit holes are ⅛ inch wide
- Long, skinny larvae within feeding galleries
- Serpentine feeding galleries under bark

University of Wisconsin

Ash damage

- Crown thinning or top-kill
- Shoots (epicormic) from the base or trunk of the tree below the main crown
- Cracks or separation of bark from the trunk
- Light patches of bark from woodpecker shaving

Leah Bauer, USFS

Kenneth R. law, USDA APHIS PPQ

rows of holes are from sapsuckers not EAB

Report potential infestations to: https://oregoninvasiveshotline.org
(Include image and location)

More info:

OSU EAB ID guide: https://catalog.extension.oregonstate.edu/em9127
EAB fact sheet: https://tinyurl.com/odf-eab
ODF Forest Health site with latest information: https://tinyurl.com/odf-foresthealth
Ash ID: https://tinyurl.com/osu-ash-id
Lookalikes: https://tinyurl.com/eab-lookalikes
Other ash pests: https://catalog.extension.oregonstate.edu/em9380