

# CSI: YOUR ASH TREES

Dying ash trees. Winding S-shaped tunnels just under the bark. Small D-shaped holes on the trunk. Emerald ash borer (EAB) has destroyed millions of ash trees in at least 20 states. Help stop its spread. Use this brochure to investigate your yard or timber lot.

Call 859-257-5838 if you find evidence of EAB.

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- ◆ Small metallic green beetle, ½ inch long
- ◆ Native to Asia
- ◆ Attacks only ash trees
- ◆ First detected in the U.S. in Michigan in 2002
- ◆ First detected in Kentucky in 2009
- ◆ Has since spread to other states, including CT, GA, IL, IN, IA, KS, KY, MD, MN, MO, NH, NY, NC, OH, PA, TN, VA, WV, WI
- ◆ Larvae feed under bark, cutting off the flow of water and nutrients to the tree
- ◆ Travels in infested firewood and nursery stock



## PART 1: IDENTIFY THE VICTIM

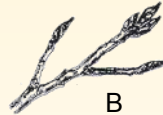
EAB attacks only ASH TREES. If your tree isn't an ash, you do not have EAB.

### Step 1: Look at the tree's branches

- Oppositely branched as in Figure A? If yes, go to step 2.



- Alternately branched as in Figure B? If yes, STOP! Your tree is not an ash.



### Step 2: Look at your tree's leaves

- Simple—a single leaf joined by a stalk to a woody stem as in Figure C. STOP! Your tree is not an ash.



- Compound—a group of leaflets joined by a stalk to a woody stem as in Figure D or E? Go to step 3.

### Step 3: Look at the leaflets

- 3 to 5 leaflets, margin smooth or coarsely toothed as in Figure D? STOP! Your tree is not an ash.



- 5 to 9 leaflets, margin smooth or finely toothed as in Figure E? Your tree is an ash. Go to Part 2.



## PART 2: EXAMINE THE VICTIM

Does your tree look healthy or is it showing signs of attack? Look for these clues. If your ash tree shows two or more of these symptoms, move on to Part 3.




		
Sparse leaves and/or branches dying in the upper part of the tree	New sprouts on the roots, lower trunk or lower branches	Short (3-5 inches), vertical splits in the bark
		
Increased activity of woodpeckers on the tree	Winding, S-shaped tunnels just under the bark	White or cream-colored larvae under the bark

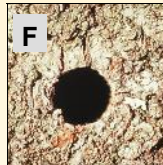
Photo credits clockwise from left: Daniel Herms, Ohio State University, Bugwood.org; James W. Smith, USDA APHIS PPQ, Bugwood.org; Joseph O'Brien, USDA Forest Service, Bugwood.org; Jim Rathert; Art Wagner, USDA APHIS PPQ, Bugwood.org; David Cappaert, www.forestryimages.org

## PART 3: CHECK FOR EXIT WOUNDS

**Step 1. Do you see multiple holes in the trunk of your ash tree? If so, what shape are they?**

*Tip: Use a knife to slightly shave the bark flat so you can gauge the true shape of the hole.*

- Round as in Figure F? STOP! EAB does not make round holes



- Oval-shaped as in Figure G? STOP! EAB does not make oval holes



- D-shaped as in Figure H? Go to step 2.



**Step 2: How wide are the D-shaped holes?**

- About 1/8 inch. Your tree may be infested with EAB. Call 859-257-5838

- ¼ inch or wider? STOP! EAB holes aren't usually this wide.



Photo credits: EAB on penny—Howard Russell, Michigan State Univ. Bugwood.org; F—Minnesota Dept. of Natural Resources Archive, bugwood.org; G—Hannes Lemme, Bugwood.org; H—Joseph O'Brien, USDA Forest Service, Bugwood.org





Ash trees near death due to EAB

## EMERALD ASH BORER

Help slow the spread of this killer. Here are some ways you can help:

Don't move firewood

- ◆ EAB can be transported long distances in firewood. When you camp, leave your wood at home. Buy only local firewood, and burn it all before you leave. Once transported into new areas, EAB can become established and kill local trees.

Avoid planting ash trees

- ◆ EAB kills only ash trees. Choose other shade trees for landscaping.

Investigate potential EAB infestations

- ◆ Follow the steps in this brochure to determine whether your ash tree suffers from EAB or some other ailment.

Photo credits: top left—Joseph O'Brien, USDA Forest Service, Bugwood.org; top right—Daniel Herms, The Ohio State University, Bugwood.org; cover adult EAB—David Cappaert, Michigan State Univ., bugwood.org; cover emergence hole—Noppadol Paothong, MO Dept of Conservation

If you believe your ash tree is infested with emerald ash borer, please call 859-257-5838

Not sure if your ash tree suffers from EAB? Call a certified arborist or forester for help. Use these websites to locate a qualified professional in your area:

[www.treesaregood.org](http://www.treesaregood.org)

[www.isa-arbor.com/findArborist/findarborist.aspx](http://www.isa-arbor.com/findArborist/findarborist.aspx)

For more information about EAB, visit the following websites:

[www.KyStateEnt.org](http://www.KyStateEnt.org)

[www.KY-CAPS.org](http://www.KY-CAPS.org)

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

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# Emerald Ash Borer CSI

Are your ash trees dying? A small green beetle could be the culprit. Do some crime scene investigation to find out.