

1

Does my tree have emerald ash borer?

STEP THROUGH THIS GUIDE

STEP 1 > I think a tree may be infested with emerald ash borer. Go to Step 3.

STEP 2 > I suspect I have seen an emerald ash borer. Go to Step 5.

STEP 3 > Is my tree an ash?

REVIEW

2

If yes, go to Step 4.
If no, go to Step 7.

STEP 4 > Does my ash tree have symptoms of emerald ash borer?

REVIEW

3

If yes, go to Step 5.
If no, go to Step 7.

STEP 5 > Are the insects emerald ash borer look-alikes?

REVIEW

4

If yes, go to Step 7.
If no, go to Step 6.

STEP 6 > It could be emerald ash borer.

Contact University of Minnesota Extension to find a trained First Detector near you: forestry.umn.edu/extension, treeinfo@umn.edu or 612-624-3020

STEP 7 > It isn't emerald ash borer. So, what is it?

Visit the University of Minnesota Extension "What's Wrong With My Plant" website to diagnose the problem: extension.umn.edu/gardeninfo/diagnostics



2

Is my tree an ash?

ASH TREE IDENTIFICATION



Branch and bud arrangement

- > Branches and buds are directly across from each other and not staggered
- > Buds or limbs may die, so not every branch will have an opposite mate



Bark

Paul Wray, Iowa State University

- > On mature trees (left and center), the bark is tight with a distinct pattern of diamond-shaped ridges
- > On young trees (right), bark is relatively smooth

White Ash



Diana Brown-Rytlewski

Green Ash



Leaves

- > Compound
- > Composed of 5-11 leaflets
- > Leaflet margins may be smooth or toothed



Paul Wray, Iowa State University

Seeds

- > Dry, oar-shaped
- > Clustered
- > On tree until late fall or early winter



3

Does my ash tree have symptoms of emerald ash borer?

LOOK FOR THESE SIGNS

Mary Wilson and Eric Rebek, Michigan State University

Adult

- > Bright, metallic green
- > 1/2 inch long, flattened back
- > Purple abdominal segments beneath wing covers



Larva

- > Creamy white, legless
- > Flattened, bell-shaped body segments
- > Terminal segment bears a pair of small appendages



Epicormic shoots

- > Sprouts grow from roots and trunk
- > Leaves often larger than normal



Serpentine galleries and D-shaped exit holes

- > Larval feeding galleries typically serpentine
- > Galleries weave back and forth across the woodgrain
- > Packed with frass (mix of sawdust and excrement)
- > Adults form D-shaped holes upon emergence



Canopy dieback

- > Begins in top one-third of canopy
- > Progresses until tree is bare



Bark splitting

- > Vertical fissures on bark due to callous tissue formation
- > Galleries exposed under bark split



Increased woodpecker activity or damage

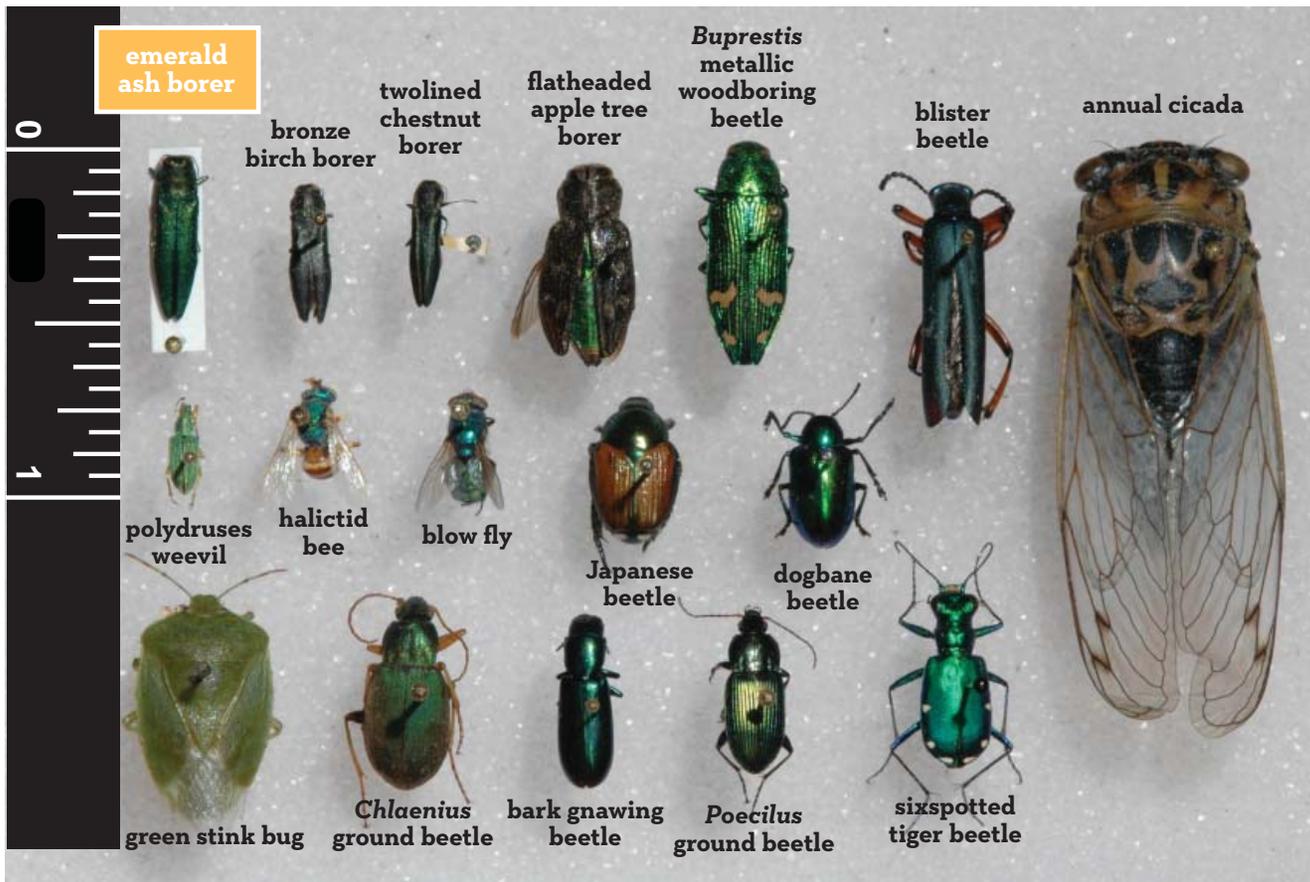
- > Several woodpecker species feed on emerald ash borer larvae/pupae
- > Peck out outer bark while foraging
- > Create large holes when extracting insects



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Are the insects emerald ash borer look-alikes?

THESE ARE THE INSECTS MOST OFTEN MISTAKEN FOR EMERALD ASH BORER



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