

Emerald Ash Borer: Coming Soon to an Ash Tree Near You!

What is it?

The non-native emerald ash borer (EAB), *Agrilus planipennis*, is a member of the family Buprestidae or wood borers. Measuring ½ inch long by 1/8 inch wide, the adult beetles are dark metallic green in color. Emerald ash borers have either a one- or two-year life cycle with adults emerging in mid- to late May with peak emergence occurring in late June. Eggs are laid about 2 weeks after emergence and hatch in 1-2 weeks. Larvae feed under the bark in the cambium layer for weeks, usually from late July through October. There are four growth stages of larvae (instars). Larvae overwinter in the outer bark or within the first outer inch of wood. EAB pupate in the spring with adults emerging in May or June.



Where did it come from and where is it now?

EAB are native to eastern Asia, including portions of Russia, northern China, Japan and the Korean peninsula. This invasive species was most likely introduced via infested ash wood used in cargo pallets/crates; it was first detected in Michigan in 2002. Establishment probably occurred several years earlier. EAB has now been confirmed in 26 states including: Arkansas, Colorado, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and Wisconsin. EAB has also been found in Ontario and Quebec provinces in Canada.



Adult EAB on ash leaf

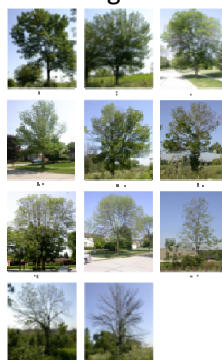
Is emerald ash borer in Texas?

PROBABLY NOT YET. Statewide trapping over the past several years has detected no EAB. It has been confirmed in six counties in southeast Arkansas, including in Columbia County just two counties away from Texas.

What does it do?

Emerald ash borers infest and kill ash trees. Both healthy and sick/stressed trees are susceptible. Ash borer larvae create tunnels or galleries that can encircle or girdle the tree resulting in nutrient starvation and tree mortality.

EAB galleries and larvae



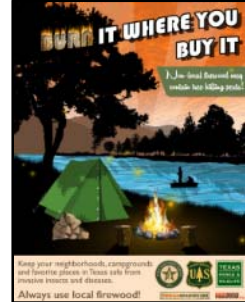
Stages of tree dieback from EAB attack

What trees are threatened?

The emerald ash borer can infest all species of ash (*Fraxinus spp.*) in Texas. This includes the following: green ash, white ash, Carolina ash, Texas ash, water ash, Mexican ash, and Arizona ash. EAB also has been confirmed infesting white fringetree (*Chionanthus virginicus*) in Ohio. It doesn't attack any other native tree species.

Can emerald ash borer be prevented?

Yes. Moving infested firewood can spread EAB. To prevent/slow the spread of EAB, don't move firewood that may be infested to un-infested areas. Burn firewood near where it is purchased. Preventative pesticide applications also are effective at reducing EAB impact. Injection of insecticides such as emamectin benzoate may be used to protect high value ash trees from EAB.



How can I tell if I have emerald ash borers in my trees?

The presence of adult beetles is a positive sign of infestation. Thinning/declining ash trees are considered suspect, especially if the trunk has excessive branching or new sprouts. During winter months, woodpeckers may make holes in the bark of infested ash trees as they feed on EAB larvae. Winding trails or galleries under the bark are another sign of infestation. Emerging adults leave small "D" shaped exit holes in the bark as they emerge. See images below for clarification.



Top dieback



Epicormic branching



EAB exit hole



Woodpecker holes

What do I do if I think I have emerald ash borers?

Contact your local Texas A&M Forest Service office or Regional Forest Health Coordinator Allen Smith by phone at 903-297-5094 or email at lasmith@tfs.tamu.edu for a positive identification.

