



New Hampshire Department of Agriculture, Markets & Food

Frequently Asked Questions about Emerald Ash Borer (EAB) In New Hampshire

Updated October 5, 2018.

1) Where has emerald ash borer been found in New Hampshire?

Emerald ash borer (EAB) was first found in New Hampshire in 2013 in the city of Concord. Since that time, state crews have continued surveying. <u>Find the most current list of towns with EAB</u>.

The state of New Hampshire has different management zones based on where EAB has been found, which include the categories "generally infested area," "potential expansion area," and "alert area." The general infested area in New Hampshire is measured by applying a three-mile buffer (a conservative estimate of EAB's natural spread) around the location of all known infested trees. The management zones are shown <u>on this map</u> and can help landowners and municipalities determine where they are in relation to the affected areas and, in turn, when they should start managing their ash trees.

2) How does emerald ash borer spread?

Emerald ash borer is most often moved long distances in infested ash products, such as firewood. New Hampshire implemented an <u>out-of-state firewood quarantine</u> in 2011 to reduce the probability of transporting emerald ash borer and Asian longhorned beetle into the state.

3) What types of trees does emerald ash borer attack?

Emerald ash borer (EAB) colonizes and kills all species of true ash (*Fraxinus* spp.), which includes white ash, green ash and black/brown ash in New Hampshire. Mountain ash is in the genus *Sorbus* and isn't attacked by emerald ash borer. EAB kills ash trees within 3-5 years of infestation.

In October 2014, EAB was also collected from white fringetree (*Chionanthus virginicus*) in Dayton, Ohio, and specimens were confirmed by the U.S. Department of Agriculture (USDA) as EAB. White fringetree is a native ornamental not known to grow wild in New Hampshire but it is sometimes planted as a landscape tree. <u>USDA Animal and Plant Health</u> <u>Inspection Service (APHIS</u>) research is currently underway to determine the full extent to which EAB can use white fringetree as a host.

White fringetree and ash (genus *Fraxinus*) are both in the olive family (Oleaceae). Other, more common members in the olive family, such as lilac and privet, were tested for host suitability early on and aren't considered suitable hosts for EAB.

4) How important are ash trees in New Hampshire?

Ash are important ecologically, economically and aesthetically. We estimate 25 million ash trees over 5-inches in diameter and another 750 million seedlings and saplings are growing in New Hampshire—6% of the northern hardwood forest. Though not as plentiful as some of our other trees, ash is used for firewood and lumber and is an ecologically important part of unique natural communities. As a forest product, ash contributes over \$1 million dollars to New Hampshire's economy annually.

Turkey, grosbeaks, cardinals, cedar waxwings, black bear and small rodents eat ash seeds. Beaver eat the inner bark. The potential disappearance of ash trees in the long-term means one less food source for wildlife.

Ash is a commonly used landscaping tree and is widely used as a street tree in urban and residential areas.

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5) What are some signs I can look for to determine if my ash tree is infested with emerald ash borer?

Woodpecker activity on ash trees might indicate an emerald ash borer (EAB) infestation. EAB larvae live just under the bark of ash trees, and woodpeckers search for the larvae by flecking away outer layers of the bark. The bark ends up looking lighter where woodpeckers have been active, which is known as "blonding" (shown in the image to the right). Woodpeckers searching for EAB larvae will not gouge deep holes in an ash tree. A good time to check your ash trees for heavy woodpecker activity is in the winter and spring, before the trees leaf out. This will give you a good view of the bark.

Also, the canopy of ash trees infested with EAB begins to thin above infested portions of the trunk and major branches. This is because EAB destroys the water and nutrient-conducting tissues under the bark. Heavily infested trees exhibit canopy dieback (dead branches) usually starting at the top of the tree. One-third to one-half of the branches may die in a year. Most of the canopy will be dead within 2 years after the first symptoms of decline appear. Sometimes stressed ash trees sprout from the trunk when infested with EAB. This may be more common in green and black ash.

You can view pictures of the signs of emerald ash borer infestation here and here.

6) What does emerald ash borer look like?

The adult beetle is dark metallic-green; ½ inch-long and 1/8 inch wide. Please see <u>www.nhbugs.org</u> for photos of emerald ash borer (EAB) adults, larvae and symptoms of infestation.

It is very rare for landowners to see an EAB adult. Most reports of EAB sightings received at <u>www.NHBugs.org</u> turn out to be the native six-spotted tiger beetle. Check out some pictures of <u>common EAB look-alikes</u>.

7) Where do I go for more information?

UNH Cooperative Extension is the public information clearinghouse, using information developed by the N.H. Division of Forests and Lands, N.H. Department of Agriculture, Markets & Food, and other partners. New Hampshire-specific emerald ash borer (EAB) information is available at the website <u>www.nhbugs.org</u>, or through the UNH Cooperative Extension Forestry Information Center hotline at 1-800-444-8978. More information is on the national EAB website at <u>www.emeraldashborer.info</u>.

8) I think my ash tree has emerald ash borer. How do I report suspect trees?

Report suspect trees and submit photos of damage to <u>www.nhbugs.org</u> or call 1-800-444-8978.

9) I live near an affected area. What can I do to protect my ash trees?

It's a good idea to inventory the trees on your property—determine which are ash and their value to you. There are many resources available to you online to help <u>identify which of your trees are ash</u> and to determine the <u>value and</u> <u>management options for your ash</u>.

Once you know which of your trees are ash, look for dead or dying branches and woodpecker activity. If you have a suspect ash, report it to <u>www.NHBugs.org</u> or call 1-800-444-8978.

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Systemic insecticides are an option and are available in homeowner formulations and formulations which can only be applied by a licensed applicator. Find more details about treatment options <u>here</u> and <u>here</u>.

10) Can I move ash firewood or ash logs?

Be aware of transporting potentially infested materials. It takes years to decades for EAB to spread naturally; humans can spread it in hours. Consider chipping or burning ash wood waste on site rather than transporting it. Try to avoid moving ash logs and firewood between June 1 and September 1. Separate ash from your firewood and use the ash firewood locally (within 5 miles). Season ash firewood on site for at least one year before transporting. For a summary of these suggestions see <u>Best Practices to Help Stop the Spread of EAB in New Hampshire</u>.

11) Ash trees have been on the decline in some areas of New Hampshire for years. Why are we concerned now?

Past ash mortality we have seen in the state isn't indicative of long-term infestation by emerald ash borer (EAB). The seacoast region, in particular, has experienced some ash decline, from the diseases ash yellows and ash rust. Ash can decline due to other factors, including environmental stress, especially since ash is frequently planted near roads and walkways. While these other ash problems may kill some of the ash, EAB will kill all of the ash, making it a greater concern.

12) What is the state of New Hampshire doing to respond?

EAB response in New Hampshire is a coordinated, multi-agency effort. Partner agencies include the Department of Natural and Cultural Resources, Department of Agriculture, Markets and Food, UNH Cooperative Extension, the U.S. Forest Service, and the USDA Animal and Plant Health Inspection Service. Arborists, landscape managers, loggers, and tree care professionals are also an important part of the response.

The EAB program in the state consists of:

- 1. Detection of new EAB populations and monitoring EAB populations in the state and in neighboring jurisdictions.
- 2. Development of science-based management recommendations including treatment of landscape and forest ash trees.
- 3. Recommendations of best management practices for moving or disposal of potentially infested materials.
- 4. Release of biocontrol agents.
- 5. Outreach about the risks and responses to this pest.