



This letter is being sent by Connecticut's Emerald Ash Borer Response Team. This team consists of representatives from the Connecticut Agricultural Experiment Station, CT DEP Division of Forestry, the University of Connecticut Cooperative Extension System, USDA Animal and Plant Health Inspection Service - Plant Protection and Quarantine (APHIS-PPQ) and the USDA Forest Service. Thank you for your time and your interest in the health of Connecticut's trees.

March 25, 2011

Dear Tree Warden:

We send this letter to bring you up to date regarding the emerald ash borer (EAB). As you are probably aware, EAB is an invasive insect with the potential to devastate ash trees in Connecticut. At this writing, there are no confirmed finds of this beetle in our state. However, EAB was found last summer in Saugerties, NY, 30 miles west of the northwest corner of Connecticut. Because EAB is easily spread through the movement of ash wood and because it becomes established rapidly, we feel that there is a high likelihood that EAB will be found in Connecticut at some point soon. Given that possibility, it is important that tree wardens be prepared for this insect.

Essentially, we would like to ask you for three things. First, we would like for you to know what the emerald ash borer looks like, what its habits are and the damage it causes. That way, you will be able to identify the insect and to answer questions from folks in your town. Second, we would like you to be aware of what the likely state and federal regulatory response will be should EAB be discovered in your part of Connecticut. Third, we would also ask that you begin formulating a local response plan to EAB, in case it is found in your town.

EAB – what it looks like, what it does

The adult emerald ash borer is a relatively small, bright green insect that is less than ½ of an inch long. It feeds exclusively on ash trees. This includes all species of ash trees (please note – mountain ash is not truly an ash tree). The adults are active primarily in June and early July. Given their size and the limited amount of time they are out, the adults are not the most readily identifiable life stage of the insect.

EAB is more likely to be found either through a formal monitoring process or due to the damage it causes ash trees. As a larva, it feeds on the inner bark of the tree, at the cambial layer between the bark and the sapwood. Its feeding galleries are winding ('serpentine'), with frass (chewed-up wood) packed behind the feeding insect. It is a flat-headed borer, which means that the larva is a light-colored grub that is largely flattened in appearance, including its head. The insect takes from one to two years to mature, from egg to adult, so for most of its life the insect is in the larval form.

Before the insect emerges from the tree, it turns from a larva into a pupa. The pupa then matures into an adult, which then chews its way out through the bark. In the process, the beetle leaves behind a characteristic D-shaped exit hole, very similar to the exit hole left by the bronze birch borer in white birch trees or that left by the two-lined chestnut borer in oak trees.

Infestations tend to start near to the top of the tree, where the bark is just starting to thicken. As the population grows and the number of beetles attacking a tree increases, the lower parts of the tree, including the trunk, will become riddled with EAB.

Infested ash trees lose vigor due to the girdling effect of the insects' feeding. Upper parts of the crown of the tree die back and, in compensation, the tree sends out numerous epicormic sprouts (also called water sprouts or witches brooms) from the lower trunk.

Ash trees may display a loss of vigor and extensive epicormic sprouting for a variety of reasons. In addition to the loss of vigor, there are 3 other key indicators that point towards EAB being present:

- The presence of D-shaped exit holes
- numerous serpentine feeding galleries under the bark and,
- unique flaking of the bark done by woodpeckers searching for the larva.

This last indicator is perhaps the easiest to spot. As woodpeckers are attracted to infested trees, they tend to chisel off the outer bark to expose the larvae in and under the bark. Observers have described the characteristic bark damage caused as being very similar in appearance to that when a tree falls against another and slides to the ground, knocking off the outer bark. Seeing this sort of damage on ash trees should cause you to investigate further.

What happens if EAB is found – quarantine provisions

If EAB is found in an area, the state, working with the federal government, will set up a quarantine zone. Under this quarantine, restrictions will be placed on the movement of ash out of the area, including ash in the form of nursery stock, firewood, yard waste or logs. With regards to firewood, all hardwood species will be restricted. Ash lumber will likely be permitted to be moved out of the quarantine area, but only if all bark has been removed, along with the outer ½ inch of sapwood.

Within the state, the quarantine will be administered by the Connecticut Agricultural Experiment Station (CAES). An interstate quarantine will also be declared, to be overseen by the USDA Animal and Plant Health Inspection Service (APHIS). Details on the specifics of any quarantine will be posted in the CAES web site (www.ct.gov/caes).

It should be noted that, unlike the Asian longhorned beetle in Massachusetts, there will not be an effort to eradicate EAB. Efforts will be geared towards containment of the insect and slowing its spread. Due to the wide extent to which EAB has spread, from Michigan to New York, and the speed at which the population grows once in an area, the beetle is now considered to be established in North America. As a consequence, neither the state nor the federal government will be mandating the removal of ash trees.

What are the plans for your community?

Each city and town in Connecticut is encouraged to have a plan in place should the EAB be found in that community. Factors to consider are:

- Does the city or town currently know the locations of its ash trees, either through inventory or some other means?
- Should EAB lead to the decline and death of significant ash trees in the community, how will the municipality deal with these trees, particularly along the street?
- Does the community have individual ash trees that are considered to be of special value?
- Is the town willing to make use of chemical treatments to protect some of their ash trees?
- What type of advice is the town going to give to its residents concerning EAB and ash trees on private property?

Ash trees make up a relatively small proportion of the population of the forests of Connecticut, including the urban forest. In the rural forest, ash makes up about 3% of the trees total, with most of those being white ash. The percentage of ash is greater in the northwest and southwest parts of the state, and in the parts of eastern Connecticut around Tolland County. In the urban forest, the proportion of ash also tends to be low, generally under 5%. However, 5% of a street tree population of, say, 10,000 trees is still a large number, when all of those trees may die within a couple of years of each other.

Tree wardens are encouraged to know where the ash trees are in their towns, and to keep an eye on them. APHIS is working with the University of Connecticut Cooperative Extension and CAES to monitor for the presence of the beetle on a statewide level. These agencies will let towns know if the beetle is found nearby. However, alert inspections at the local level might lead to the beetle being found sooner. This would allow action to be taken earlier and, possibly, a reduction in the amount of damage caused by the beetles.

Because of the quarantine restrictions, careful thought should be given to the disposal of ash trees. Restrictions on the movement of wood, logs and firewood might create a need for ash trees to be chipped, burned locally or milled in a way to remove the bark and outer sapwood. Planning as to where and how that activity might occur will help avoid confusion and delay after the beetle is found.

There are several insecticides that have been found to be effective on the EAB (please see http://www.emeraldashborer.info/files/multistate_EAB_Insecticide_Fact_Sheet.pdf for more details). Because of the effectiveness of these insecticides, urban forest managers have options beyond the removal of infested ash trees. You may wish to explore these options, both to conserve a valuable component of the urban forest and to provide a source for re-establishing the ash population should effective natural controls for EAB emerge.

Because there will not be a mandate to remove infested ash trees, towns might consider leaving some dead ash trees standing in certain publically owned wooded areas. These trees could then serve important wildlife values, until such time as they are recycled in the forest.

CAES, CT DEP, UConn Cooperative Extension and the federal governmental agencies will all be providing important information regarding EAB. If it is found in your town, it is likely that the people in your community will look to you to provide information and guidance. We aim to help you by providing you with the assistance or support you might need, as we all prepare for the possible discovery of this highly damaging insect.

With regards,

[CT DEP Division of Forestry](#)

[Connecticut Agricultural Experiment Station](#)

[University of Connecticut Cooperative Extension System](#)

[USDA Animal and Plant Health Inspection Service, Plant Protection and Quarantine \(APHIS - PPQ\)](#)

[USDA Forest Service](#)

Helpful websites:

www.emeraldashborer.info

[Coalition for Urban Ash Tree Conservation- Emerald Ash Borer Management Statement](#)

(www.emeraldashborer.info/files/conserve_ash.pdf)

www.na.fs.fed.us/fhp/eab/

paemeraldashborer.psu.edu/

www.ForestConnect.info

[www.ct.gov/dep/forestry - emerald ash borer page](http://www.ct.gov/dep/forestry-emerald-ash-borer-page)

[www.ctpa.org - emerald ash borer pages](http://www.ctpa.org-emerald-ash-borer-pages)

To report possible finds of the Emerald Ash Borer, call (203) 974-8474, or send an email to CAES.StateEntomologist@ct.gov. Digital photos of suspected insects are encouraged.