

Emerald Ash Borer: A New Pest on our Doorstep

| Here's what you need to know to help stop the invasion of the emerald ash borer.

By Jennifer Forman Orth



By now, most of you have heard about the devastating impact that the Asian longhorned beetle infestation has had on the city of Worcester and surrounding towns, and the subsequent find of a much smaller infestation in Boston this past summer. In the flurry of news about the Boston find of ALB, you might have missed a new invader on our doorstep: the emerald ash borer. In July of 2010, USDA workers monitoring traps in Ulster County, NY discovered the emerald ash borer in the town of Saugerties, less than 25 miles from the western border of Massachusetts.

Background

The emerald ash borer (*Agrilus planipennis*, “EAB”) is a wood-boring beetle that attacks ash trees. The EAB kills trees by boring into the wood just under the bark, cutting off nutrient and water flow, leading to death in just a few years. While EAB has a very specific diet compared to other pests impacting our state, white ash (*Fraxinus americana*) is a significant component of our state’s hardwood forests, and green ash (*F. pennsylvanica*) is a frequently planted tree along roadsides and in more urban areas. Other native ash species, as well as European species and various cultivars, are present in our state as well. All of these trees are at risk.

Emerald ash borer is thought to have been accidentally introduced to the U.S.A. in the late 1990s via contaminated solid wood packaging material used to import goods from Asia. Since its arrival, it has spread to fifteen different states as well as Canada, and led to the loss of millions of ash trees, including over 30 million trees

in southeastern Michigan alone. An adult EAB only flies about one-half mile from a tree once it has emerged; it is the unintentional transport of EAB through movement of infested wood that has led to the beetle spreading so far, so fast.

Recognizing EAB and EAB Tree Damage


The EAB is considered by some to be a charismatic beetle, with brilliantly green, metallic wings, and a slender body small enough to fit on the head of a penny. As with most wood-boring insects, the main damage to the tree is done, not by the adults, but by the white, wormlike larvae. Signs of EAB include small, D-shaped exit holes (about 1/8 inch [3 mm] wide) and serpentine tunnels just under the bark. These tunnels (or “larval galleries”) weave back and forth in s-shaped patterns across the grain of the wood and are typically filled with sawdust-like frass, the waste product of the larvae. Check for these signs on wild ash trees, nursery stock, and wood products such as planters made from ash.

Other external signs of EAB infestation include canopy dieback in the upper third of the tree and epicormic shoots—sprouting of new growth from the roots or trunk of the tree, or from just below where dieback is occurring. Larval galleries may also become visible as the bark of the tree splits and fissures open up vertically along the trunk or branches. In other parts of the country where EAB infestations have occurred, an increase in woodpecker activity on infested trees has been reported.

All photos courtesy Pennsylvania Department of Conservation and Natural Resources - Forestry Archive, Bugwood.org

EAB: What's Next?

This past December, representatives from Massachusetts state agencies including the Department of Agricultural Resources (DAR); the Department of Conservation and Recreation (DCR); and Department of Fish and Game (DFG) met along with representatives from UMass Extension and the USDA's Plant Protection and Quarantine Program to discuss emergency preparedness plans for dealing with the likely discovery of emerald ash borer within Massachusetts. These plans include a large-scale survey effort underway by DCR, focusing on the four counties in the western part of the state (Berkshire, Franklin, Hampshire and Hampden). Over 700 EAB traps will be placed and then monitored throughout the spring and summer. Plans are also underway to continue statewide outreach efforts using a network already in place due to the Forest Pest Outreach and Survey Project, a regional multi-agency effort to educate people about Asian longhorned beetle and other forest pests.

New England, Delaware, and New Jersey are the only remaining sections of the Northeast and Great Lakes Region where EAB has not been found. Quarantines preventing the transport of live trees, lumber, firewood, and ash products are in place in states where EAB has been found, but Massachusetts and other EAB-free states will remain at risk as long as surrounding states continue to struggle with their own infestations. While state agencies are continuing their outreach efforts, we rely on an educated green industry to report any signs of EAB infestation. If you think you've seen an emerald ash borer or a potentially infested tree, please report it using the link listed below, or call the USDA at 1-866-322-4512. 

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USEFUL LINKS:

Emerald Ash Borer Information Site: <http://emeraldashborer.info/>

DAR Online Pest Reporting Form: <http://massnrc.org/pests/report.aspx>