



**Howard County Department of Public Works, Bureau of Highways**  
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410-313-7450 • [highways@howardcountymd.gov](mailto:highways@howardcountymd.gov)

## **FREQUENTLY ASKED QUESTIONS about the EMERALD ASH BORER**

### **What is the Emerald Ash Borer?**

It is an invasive species of beetle whose larva feed on and destroy ash trees. Its first appearance in the United States occurred in 2002 in Michigan, after which it began spreading across Canada, New England and down the East Coast. Its first confirmed sighting in Maryland was in 2003. An individual borer can live between one to two years.



Leah Bauer, USDA Forest Service Northern Research Station, Bugwood.org

### **Why is it a problem?**

The emerald ash borer is highly destructive and poses a threat to the ash tree population across North America. So far, all varieties of ash have been found to be susceptible to the borer. It has killed between 50 to 100 million ash trees in the United States and Canada. The vast majority of infected trees die within two to six years. For the ecological health of our urban forests, we must promote biodiversity. The destruction of even one type of tree, such as the ash tree, can disrupt the natural balance of local food chains and cause a ripple effect of consequences throughout our forests and parks.



Daniel Herms, Ohio State University, Bugwood.org

### **What can be done to save the ash trees?**

The borer does not have any natural, effective predators in North America. Some hard hit areas in Canada and Colorado have opted to fight back by importing Chinese eulophid and braconid wasps. These endoparasitoid wasps reproduce by laying their eggs inside ash borer larva. Upon hatching, the young wasps exit by eating their way through the host, killing the larva. Because using one potentially invasive species to fight another might pose risks of its own, this treatment option is not the best fit of every community's ecological needs. Certain tree inoculations and insecticides have been found effective at curbing the spread of the borer in healthy trees. However, for the best results, these treatments must be done before an infestation begins, and must be continued every two years after the initial treatment. To a large degree, the best way to prevent infestations is by not introducing foreign plant life to forests, parks and neighborhoods.

### **What steps is Howard County taking to minimize ash tree destruction?**

To offer the best protection for our remaining healthy ash trees, the County has implemented a two year continuous inoculation cycle. This care is reserved for trees in excellent condition – those most likely able to fend off an infestation. Ash trees of marginal health are removed in the winter or early spring seasons to reduce the risk of their weakened state leaving them vulnerable to a borer attack. The stumps and exposed roots are removed as soon as possible by mechanically grinding to a depth of six inches below the surrounding ground level.



David Cappaert, Michigan State University, Bugwood.org

In an effort to cut down on future infestation rates, the County is emphasizing a greater diversity in the choice of street trees. At-risk ash trees are replaced in the spring or fall with a variety of species: maple, crabapple, oak, elm, ginkgo, zelkova and others. To measure the success rate of our efforts and improve upon our methods, the County's Bureau of Highways began a pilot program in the Village of Oakland Mills which incorporated a planned timetable of ash tree inoculation and removal. Highways has since copied this methodology throughout all of the Columbia Villages and hopes to evaluate this method for effectiveness, environmental impact and fiscal responsibility. For more information and updates on infestation rates, visit <http://mda.maryland.gov/plants-pests/Pages/eab-current.aspx> or [www.emeraldashborer.info](http://www.emeraldashborer.info)



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### What has Howard County accomplished so far?

Unfortunately, the exact number of ash trees within the County road right-of-way is unknown, and it is difficult to get a precise count. However, the County is doing what it can to accurately record tree maintenance and estimates that there are 20,000 County ash trees to monitor. Highways has taken the initiative to track ash tree infestation, inoculation and removal. The below numbers can be used to confirm the County's progress:

	2012/13	2013/14	2014/15	Total
<b>Inventoried</b>	1,160	1,132	1,125	3,417
<b>Removed</b>	608	584	549	1,741
<b>Treated</b>	441	433	551	1,425
<b>Replaced</b>	502	490	470	1,462
<b>Watched</b>	111	115	25	251

### How can I help? Start by learning the main warning signs of an ash borer infestation:

- Epicormic sprouting (sucker growth) around the tree trunk
- A sparse or dead canopy
- Bark splits
- Serpentine tunnels (or "galleries") under the bark
- A "D" shaped borer hole
- Strips of removed bark ("flecking") from woodpecker feeding



Daniel Herms, Ohio State University, Bugwood.org



James W. Smith, USDA APHIS PPQ, Bugwood.org



Edward Czerwinski, Ontario Ministry of Natural Resources, Bugwood.org



Kenneth R. Law, USDA APHIS PPQ, Bugwood.org

When you find the telltale signs, contact the Bureau of Highways at 410-313-7450 or the Department of Recreation and Parks Natural Resources Division at 410-313-1636 immediately. The faster the County knows about the issue, the better chance we have at minimizing the damage from the pest on public land.

**Remember**, the County is not responsible for trees located on private property. Please contact a professional arborist to aid in maintaining privately owned ash trees. Also, please keep in mind the importance of the quarantine rules: Do not move ash trees, firewood or wood chips/bark from one area to another. Details of the Maryland quarantine order can be found online at [http://mda.maryland.gov/plants-pests/Documents/eab\\_quarantine\\_2011\\_july\\_final.pdf](http://mda.maryland.gov/plants-pests/Documents/eab_quarantine_2011_july_final.pdf). These measures will go a long way in helping us maintain and restore our valuable woodland assets.



Debbie Miller, USDA Forest Service, Bugwood.org