



Emerald Ash Borer Has Arrived to South Park, one of the Buffalo Olmsted Parks

Information Guide

June 14, 2011

Buffalo, NY -- The much dreaded invasive pest species **Emerald Ash Borer (EAB)**, highly destructive to all Ash tree species in North America has finally arrived to Buffalo. Although it has only been identified by the New York State Department of Environmental Conservation (DEC) in one Buffalo Olmsted Park, its arrival has potential damage to the region's high number of green and white ash trees. There are approximately 1,200 Ash trees throughout the 1200+acre Buffalo Olmsted Park System. This represents approximately 10% of the trees through the System.

The damage of this insect rivals that of [Chestnut blight](#) and [Dutch Elm Disease](#). To put its damage in perspective the number of chestnuts killed by the Chestnut Blight was around 3.5 billion chestnut trees while there are 3.5 billion ash trees in Ohio alone. Dutch Elm Disease killed only a mere 200 million elm trees while EAB threatens 7.5 billion ash trees in the United States. The insect threatens the entire North American [Fraxinus genus](#), while past invasive tree pests have only threatened a single species within a genus. Since its accidental introduction into the United States and Canada in the 1990s, and its subsequent detection in 2002,^[1] it has spread to [14 states](#) and adjacent parts of Canada. It has already killed at least 50 - 100 million ash trees so far and threatens to kill most of the ash trees throughout North America

How has Buffalo Olmsted Parks Conservancy Prepared for this Potential Infestation?

- Received a NY State Agriculture and Markets Grant for educating arborist (tree specialists), environmentalists, Olmsted zone gardeners, board and staff and members of the public. Two community educational events were held in early 2011.
- Buffalo Olmsted Parks Conservancy also used the grant to create an informative display, located at the Parkside Lodge in Buffalo to help educate public in identifying the EAB.
- We have met with the City, reviewed treatment options with the City and continue to work with them on a detailed multi-year plan to ensure sustainability of the treatment.
- Ongoing staff training on the EAB resulted in observant Olmsted Staff to identify an infestation of an Ash tree and immediately contact the DEC for confirmation.
- A generous donation from a Buffalo Olmsted Parks Conservancy member, Anne Joyce will enable inoculation (preventative) of the trees in South Park. While this will not permanently solve this potentially devastating event, it certainly can help us stay ahead of the "little green monster."

What can be done now to prevent this infestation?

In order to inoculate the 1,200 Ash trees in Buffalo's Olmsted parks, two more inoculation guns will need to be purchased. The process of inoculating the trees is relatively simple, and must be completed every two to three years until the invasive species threat has migrated elsewhere. The EAB will migrate when it runs out of viable hosts. The only way this will occur is if all the Ash trees are inoculated, or have died. The cost of removing a dead Ash tree is approximately \$500. This invasive species is killing the Ash trees at an alarming rate where they are active and they are here. If this issue were to go unattended, the cost of removing 1,200 dead Ash trees would amount to \$600,000!

The Emerald Ash Borer



How do you detect Emerald Ash Borer?



Dying section of the Ash Tree



Serpentine Tunneling under bark of Ash Tree



EAB enters the bark making a "D" shape entryway



Emerald Ash Borer FAQs

Q: What is the Emerald Ash Borer (EAB) and what does it do?

This Asian beetle, discovered in 2002 in southeastern Michigan and Windsor, Ontario, infests and kills North American ash species (*Fraxinus sp.*) including green, white, black and blue ash, and their cultivars.

The larval stage of EAB feeds under the bark of trees, cutting off the flow of water and nutrients. Infested trees gradually die over a 2-4 year period.

Q: What does EAB look like?

EAB adults are dark metallic green in color, with a coppery red or purple abdomen under the wings. The insect is approximately ½ inch long and 1/8 inch wide. Adults may be present from late May to September, or later, but are typically most common in June and July.

Larvae are creamy white in color and are found under the bark, so are not obvious, but their expanding S-shaped galleries (tunnels) may be seen if the bark is removed. Larvae themselves are hard to see.

When adult beetles emerge from the tree, they leave distinctive D-shaped (half-moon shaped) exit holes in the outer bark of branches and the trunk. Their presence typically goes undetected until trees show symptoms of being infested.

Q: Where did it come from?

The native range of the EAB is eastern Russia, northern China, Japan and Korea.

Q: When was EAB first discovered in North America?

EAB was first identified in southeast Michigan and Windsor, Ontario in 2002. It likely arrived several years earlier.

Q: How did it get to North America?

We don't know exactly, but it most likely traveled in ash wood used for stabilizing cargo in ships or for packing consumer products.



Q: Where is it now?

As of August 2010 EAB has been confirmed in 15 states, including New York, and 2 Canadian provinces. A Federal quarantine is in place in entire or portions of states that have confirmed the presence of this harmful insect. EAB larvae were discovered at Olmsted's South Park June 6th, 2011.

Q: How does EAB spread?

EAB is not a particularly strong flier. Adults typically fly less than ½ mile from their emergence tree. **Most long-distance movement of EAB has been directly traced to ash firewood or ash nursery stock.** Other untreated ash wood, wood chips greater than one inch, and ash product movement (logs, lumber, pallets, etc.) generally present lesser risks. Wood chips less than one inch or mulch are considered to pose little risk of movement. New York currently has a [regulation](#) restricting the movement of firewood to protect our forests from invasive pests.

Q: Why should New York care? How serious is this?

EAB infestation is always fatal to ash trees. Infested trees will decline from the top down and will be dead in approximately 2 to 4 years, even if the trees were healthy before being attacked by EAB.

Ash is a very common street tree in many New York communities. It was widely planted to replace native elms lost to Dutch elm disease. In Michigan, the first infested state in the U.S., the greatest economic impact has been on communities faced with removal of thousands of dead ash on streets and in yards. Many of these dead trees pose significant public safety hazards and liability problems for municipalities.

Ash is also a common and important forest species. Ash seeds are a food source for birds and mammals. Ash species (white, green and black) comprise almost 8% of all trees in NY State. Ash is a commercially-valuable species, and is used for baseball bats, flooring, furniture, lumber, and pallet manufacture. Black ash is also prized by Native American tribes, including the Akwesasne, for traditional basket making. The estimated annual contribution of forest-based manufacturing and forest related recreation and tourism to the New York State economy is over \$9 billion.

Q: What is being done about EAB?

There is a national effort to limit the spread and impact of EAB. A national plan, coordinated



by the U.S. Department of Agriculture (USDA), Animal Plant Health Inspection Service (APHIS), helps guide what federal, state and local officials must do to manage this insect. Infested areas are quarantined, which means that selected materials such as firewood, ash nursery stock and ash logs may not be moved out of infested areas. Many states are educating the public on the [dangers of moving firewood](#); the primary way EAB and many other invasive pests and diseases of trees are spreading.

Q: What is being done in New York?

The State has been taking several actions over the past several years. The New York State Department of Environmental Conservation (DEC) and the NYS Department of Agriculture and Markets, are currently leading efforts to detect, prepare for and regulate the movement of EAB into and within New York. DEC is conducting detection surveys in areas deemed high risk for introduction of EAB. For the past several years DEC has surveyed for EAB using a variety of methods, including baited traps and established "trap trees" in an attempt to determine if EAB is present in our forests.

In June 2008, a regulation was enacted to [restrict the movement of firewood](#) to within 50 miles of its source in order to protect trees and forests in the state from EAB and other invasive insects and diseases.

Q: Is there anything I can do now to protect the ash trees in my yard from EAB?

There are systemic insecticides on the market, but their effectiveness varies greatly and they can be expensive. The decision to treat individual trees is a personal preference, but consumers should educate themselves and use caution when purchasing products that claim to protect trees against EAB.

Q: Is ash still a viable choice when considering what to plant in my yard?

In general, having a diversity of species in your yard, on your street or in your community is your best defense against all tree health problems. If ash comprises 10 percent or more of the tree species in your local area, it would be best to choose an alternative.



Q: What can I do to help?

Stop. Learn. Plan. Plant. Then act. Acting without understanding the specific threat to your trees, regulations and quarantines, and your options, could cause the unnecessary loss of treasured shade trees, or loss of substantial income from your woodlot. Contact a certified arborist to assist you in assessing your trees for potential infection and propose corrective steps. Consider planting replacement trees now to eventually take the place of ash trees in the landscape.

Do not move firewood. Purchase or cut firewood from the same general location where you plan to use it. When camping or at a cabin, do not take any leftover firewood home with you. Educate yourself on how to recognize signs and symptoms of EAB. Report possible sightings of EAB by calling DEC at 866-640-0652. <http://www.dec.ny.gov/animals/7253.html>

The Buffalo Olmsted Parks Conservancy is the only nonprofit in the nation that manages an entire historic park system, including 15,000 trees. Please consider donating \$350 to plant a replacement tree or text the word "PARKS" to 20222 to make a one-time donation of \$10 to help inoculate existing ash trees and plant replacements.

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