

## **BACKGROUND**

Emerald ash borer (EAB) is an exotic, invasive beetle that was first found killing ash trees near Detroit, Michigan and neighboring Windsor, Ontario in 2002. In 2009 EAB was discovered in Randolph, New York (Cattaraugus County.) EAB is native to Asia, but likely arrived in North America on solid wood packing material. EAB larvae feed under the bark of trees, disrupting the flow of nutrients and water. Infested trees gradually die over a period of 2-4 years. All species of ash (*Fraxinus* spp.) are at risk of attack and death.

EAB infestations, in their early stages, are difficult to detect and often go unnoticed until trees show signs of decline.

Infestations expand through the natural dispersion of flying adult beetles and through the artificial movement of EAB when carried in infested material (i.e., firewood and logs.) Satellite (non-connected) infestations can be created by both natural and artificial dispersal.

NYS has enacted an EAB quarantine to restrict the movement of "regulated articles" both within and beyond the 14 separate Restricted Zones established by the quarantine. A Restricted Zone is a quarantine around an EAB infestation, and follows town lines. However, the distribution of EAB and infested areas throughout the restricted zones may not be uniform. Movement of woody debris can be facilitated through a compliance agreement, or limited permit from the NYS Department of Agriculture & Markets (NYSDAM), especially for management purposes.

Ash trees within known EAB infested areas are likely to be infested, even if they appear healthy. Therefore, special precautions are recommended for working with ash trees within these areas. These guidelines are intended to reduce the risk of the artificial movement of EAB, especially into non-infested areas.

## **EAB ADULT FLIGHT SEASON (MAY – AUGUST)**

Adult EAB begin to emerge in late spring, at approximately 450 growing degree days (GDD.) This coincides with the flowering of black locust trees. Peak EAB emergence occurs around 1,000 GDD, but adults may continue to emerge through the end of summer.

- ✿ Delay ash tree removals and branch pruning until the non-flight season.
- ✿ If pruning or tree removal is necessary due to hazardous conditions:
  - ✿ Chip the material on-site and/or transport the material to a disposal facility within the restricted zone for further processing.

## **EAB NON-FLIGHT SEASON (SEPTEMBER – APRIL)**

- ✿ Conduct ash tree removals and branch pruning.
- ✿ Transport material to a disposal facility for processing before the next adult flight season.

## **EAB INSECTICIDE CONSIDERATIONS**

- ✿ Insecticide treatments to control EAB have proven to be effective; however, trees with more than 50% canopy decline are unlikely to recover even if treated.
- ✿ Systemic trunk and soil insecticides should be applied when the soil is moist, but not saturated or excessively dry.
- ✿ Apply soil treatments in mid-Spring to allow time for uptake.
- ✿ Apply trunk injections after the leaves have fully expanded.
- ✿ See *Insecticide Options for Protecting Ash Trees from Emerald Ash Borer* (<http://www.emeraldashborer.info>)

## **NEW YORK EAB QUARANTINE**

<http://www.dec.ny.gov/animals/47761.html>

## **NEW YORK STATE COMPLIANCE AGREEMENT INFO**

<http://www.agriculture.ny.gov/PI/eab.html>

## **NEW YORK FIREWOOD REGULATIONS**

<http://www.dec.ny.gov/animals/28722.html>

**REPORT NEW INFESTATIONS TO THE WEABTF  
(716/652-5400 x150) OR THE NYS DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION (716/851-7010).**

All Photos Courtesy of Patrick Marren, NYS Department of Environmental Conservation, unless otherwise noted.



Woodpecker foraging is often the first indication that an ash tree is infested with EAB. Look for signs of woodpeckering during the winter, when the leaves are absent. Heavily woodpecked trees may take on a "blonde" appearance.

EAB larvae feeding on ash tree - note the "bell-shaped" segments near the tail (bottom). Larvae feed in an "S" shaped pattern. When a tree is heavily infested, it may be difficult to see where one feeding gallery ends and another begins



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EAB adults emerge from "D" shaped exit holes beginning in late spring. They feed briefly on ash leaves, mate and lay eggs on the bark of host trees. Adults are less than 1/2 inch long and are metallic green in color.

