

# Emerald Ash Borer

## *A Serious Threat to North American Ash Trees*

U.S. Department of Agriculture  
Forest Service  
Northeastern Area State and Private Forestry



**Description:** Emerald ash borer (EAB), *Agrilus planipennis*, is the most devastating forest insect introduced to North America in modern times. Millions of ash trees in Michigan, Indiana, Ohio, Illinois and beyond have died. Few if any ash trees survive in EAB-infested areas. EAB, a native of Asia, was found near Detroit in July 2002 and shortly thereafter in Windsor, Ontario. Movement of infested wood products unintentionally spread the insect further.

EAB has been confirmed in 18 States, including Iowa, Kentucky, Maryland, Minnesota, Missouri, New York, Pennsylvania, Virginia, West Virginia, Wisconsin, and Tennessee—and in 2012 in Connecticut, Kansas, and Massachusetts. The insect has also been found in Quebec, Canada. Annual, national detection surveys are likely to find EAB in additional counties in these and other States.

### **Key Issues:**

- None of the 16 native ash species in North America appear to be completely resistant.
- Green ash and black ash are common along river corridors and in wetland forests; losing these trees could have significant impacts on water quality.
- The estimated value of ash trees in forests and urban areas exceeds \$300 billion.
- Removing infested and dead trees and planting replacement trees could cost local governments and homeowners \$12.5 billion over 10 years, according to a recent study.
- Movement of infested firewood is a major cause of new infestations.
- Detection and treatment tools are still limited but advances are being made.
- New and improved tools and tactics are needed to manage EAB and its aftermath.
- Finding, introducing, and establishing natural enemies of EAB may provide long-term help in managing EAB populations and spread.
- Steady, long-term assistance to State and local governments is needed, particularly to develop plans to prepare for the arrival of EAB and to deal with affected areas in the aftermath of outbreaks.

**Accomplishments:** The Forest Service is a major partner in EAB response. We support the lead Federal and State plant pest regulatory agencies, working with numerous partners to develop tools and technology to manage EAB and its impacts. In cooperation with State partners, the Forest Service helps communities and landowners after the loss of their ash trees. Recent accomplishments include these:

- In cooperation with Purdue, Ohio State, and Michigan State Universities, sponsored Emerald Ash Borer University—a series of EAB-related Webinars for forest health practitioners, local officials, and others. The university project is continuing in 2013.
- Continued to refine insecticide treatment recommendations.
- Completed ash inventories in high-value recreation sites on three National Forests as a precursor to possible preventive treatments.
- Initiated a seven-State effort to detect, suppress, and prepare for EAB in the Northeastern United States.
- Supported New York State's actions to slow ash mortality by using existing tools to reduce EAB population growth and slow local spread. About 2,150 acres were treated to reduce EAB populations.

- Provided resources and assistance to State partners for large-scale initiatives in Iowa, Minnesota, New York, Pennsylvania, and West Virginia, to monitor and assess EAB populations, plan and implement prevention guidelines, and to treat EAB-infested ash trees in communities and public parks.
- Provided resources to the Allegheny and Hiawatha National Forests to collect ash seed for preservation.
- Continued technical and financial support for EAB management in the western Lake Erie Basin in Ohio. This effort is helping communities and forest landowners remove infested trees, restore EAB-affected areas, utilize ash wood, manage forest stands, and restore wetlands.
- Continued technical and financial assistance to State and local partners to replant EAB-affected urban sites.
- Prepared and delivered EAB information, including EAB identification kits.
- Continued to support the EAB portal Web site with Michigan State University at [www.emeraldashborer.info](http://www.emeraldashborer.info).
- Continued to cooperate with Forest Service and university scientists on evaluating EAB rate of spread and dispersal, chemical and biological controls, survival in wood chips and firewood, and survey techniques.
- Completed another field season of the SLow Ash Mortality (SLAM) project in Michigan’s Upper Peninsula and funded 2 more years to wrap up data collection, analysis, and management recommendations. The multi-agency pilot could be the basis for an integrated management strategy to reduce EAB populations and slow the progression of ash mortality.
- Supported evaluations of resistance in native ash trees.
- Continued to evaluate the solitary wasp, *Cerceris fumipennis*, as an early detection tool for EAB.

**Budget History:** Funding increases in FY 2010 – 2011 were primarily to replant trees in EAB-affected communities.

<b>Emerald Ash Borer</b> (Dollars, thousands)				
<b>Source</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b> (estimated)
Forest Health Management	\$2,695	\$2,719	\$1,111	TBD
Urban and Community Forestry	1,000	0	0	TBD
Great Lakes Restoration	3,000	1,758	0	TBD
<b>Totals</b>	<b>6,695</b>	<b>4,477</b>	<b>1,111</b>	<b>TBD</b>

<sup>1</sup> Funding from the U.S. Environmental Protection Agency for EAB preparedness and restoration projects in the Great Lakes watershed

**Future Direction:**

- Help Federal, Tribal, State, and local governments, homeowners, and landowners to prepare for EAB
- Develop effective management tools and strategies to deal with the aftermath of EAB outbreaks
- Promote the release and establishment of EAB bio-control agents
- Reduce EAB-induced impacts in high-value areas and unique ecosystems
- Promote and restore healthy, sustainable urban and rural forests
- Minimize artificial movement of EAB to uninfested areas
- Promote management tactics that can slow down the movement and spread of EAB tree mortality

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