

# Emerald Ash Borer

USDA Forest Service  
Northeastern Area  
State and Private Forestry



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

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**Description:** The emerald ash borer (EAB), *Agrilus planipennis*, is an Asian insect that attacks and kills ash trees of all sizes and threatens our urban and rural forests. Ash is common in forests and riparian areas throughout the United States and Canada. It has been extensively planted in urban settings as well. None of North America's 16 ash species is known to be resistant to EAB. Ten of millions of ash trees have already been killed by this invasive insect.

EAB was found in the Detroit area in July 2002 and shortly thereafter in Windsor, Ontario. The unintentional movement of infested nursery stock, logs, other wood products, and firewood has helped spread the insect to other States and Canadian provinces. EAB has currently been confirmed in 13 States: Illinois, Indiana, Kentucky, Maryland, Michigan, Minnesota, Missouri, New York, Ohio, Pennsylvania, Virginia, West Virginia, and Wisconsin. EAB has also been confirmed in other locations in Ontario and Quebec. Detection surveys continue, and it is likely that this insect will be found in other locations in North America.

### **Key Issues:**

- EAB is the worst tree-killing pest introduced to North America since chestnut blight.
- Removing infested and dead trees and planting replacements could cost local governments and homeowners \$10.7 billion over the next 20 years, according to a recently completed economic analysis.
- No native ash species are known to be resistant to EAB, including black ash, which is culturally significant to Native Americans.
- Ash trees are naturally abundant in woodlands and extensively planted elsewhere; the value of ash in forests and urban areas is estimated at more than \$300 billion.
- Movement of infested firewood is a major cause of new infestations.
- More efficient and effective management tools and treatments are needed.
- Sustained and long-term assistance to State and local governments is needed to help restore healthy urban forests.

**Accomplishments:** The Forest Service has played, and continues to play, a major role in responding to EAB by supporting the efforts of the lead Federal and State plant pest regulatory agencies, developing tools and technology needed to detect and control the insect, and helping communities and landowners deal with the loss of their ash trees. Recent accomplishments include:

- Publishing guidelines for insecticide treatments and making them available to users
- Preparing and delivering information and outreach activities to support EAB program goals, and continuing to produce "EAB Kits" and make them available.
- Reprinting Forest Service EAB information products as needed and making them available to a broad spectrum of audiences. A new generic EAB brochure was made available for use in all States.
- Supporting the EAB portal Web site with Michigan State University ([www.emeraldashborer.info](http://www.emeraldashborer.info)).
- Continuing critical evaluations of EAB rate of spread and dispersal, chemical and biological control methods, survival in wood chips and firewood, and survey techniques.
- Securing ARRA funding to expand **SL**owing **A**sh **M**ortality (**SLAM**) to two other sites in the Upper Peninsula of Michigan. SLAM is a multiagency pilot project to develop and evaluate an integrated strategy to reduce EAB populations and **slow** the progression of **ash mortality**. If successful, this strategy could form the basis of an overall management strategy to manage EAB infestations and slow their natural spread.
- Initiating projects in Ohio and Michigan to provide financial assistance to restore and replant communities and other areas affected by EAB.
- Implementing second-year projects with State partners to continue evaluation and field testing of the solitary wasp, *Cerceris fumipennis*, as a biosurveillance tool for EAB.

- Working with three university partners to develop and implement the “EAB University,” a pilot test of using live Webinars to get information quickly and inexpensively into the hands of a broad range of users.
- Holding a conference in Chicago for community leaders and individuals on the economic, social, and environmental costs of EAB.
- Developing and coordinating seed collection protocols with ARS and NRCS. An ash gene conservation plan is in place.

**Budget History:** The funding history for EAB has been fairly stable. Beginning in FY2009 and FY2010, significant funding increases from a number of different sources have occurred, primarily to replant trees in communities affected by the EAB.

<b>Emerald Ash borer</b> (\$ Thousands)				
	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>
SPCH <sup>1</sup>	\$1,480	\$975	\$1,938	\$2,095
SPFH	500	500	801	600
SPUF <sup>2</sup>	0	0	1,000	0
American Recovery and Reinvestment Act <sup>3</sup>	n/a	n/a	4,487	n/a
Great Lakes Restoration Initiative <sup>4</sup>	n/a	n/a	n/a	3,000
<b>Totals</b>	<b>\$1,980</b>	<b>\$1,475</b>	<b>\$8,226</b>	<b>\$5,695</b>

<sup>1</sup>Congressionally directed funding: \$1 million in FY2009 for “EAB work in the Midwest”; \$1.5 million in FY2010 “to assist in restoring urban areas and communities through identifying and replanting trees infested and killed by the emerald ash borer.”

<sup>2</sup>Congressionally directed funding: \$1 million in FY2009 to “address impacts of EAB in the Midwest”

<sup>3</sup>Funded in FY2009 only: \$2.243 million in ARRA funds for “implementation of mitigation strategies based on the slowing ash mortality effort in the Upper Peninsula” to be managed by the Northeastern Area S&PF; and \$2.244 million for “EAB containment and ecosystem restoration” to be managed by the Northern Research Station.

<sup>4</sup>FY2010 funds from EPA for EAB preparedness and restoration projects in the Great Lakes watershed

**Future Direction:**

- Help State and local governments, homeowners, forest landowners, Federal partners, and tribal governments prepare for EAB and its adverse effects.
- Develop effective management tools and strategies.
- Reduce EAB-induced impacts in high-value areas and unique ecosystems.
- Promote and restore healthy, sustainable urban and rural forests and unique ecosystems affected by EAB.
- Minimize artificial movement of EAB to noninfested areas.

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# Cooperative Emerald Ash Borer Project

Quarantined zones in Illinois, Indiana, Kentucky, Maryland, Michigan, Minnesota, Missouri, New York, Ohio, Pennsylvania, Virginia, West Virginia & Wisconsin as of December 2, 2009

Includes gypsy moth quarantine boundary

Quarantine zones and regulated areas are subject to change. Please check with your Federal or State Agricultural Departments for current information.

