

# EMERALD ASH BORER

## Overview and History

The Emerald Ash Borer is an exotic pest from Asia that was first discovered in six Southeast Michigan counties (Livingston, Macomb, Monroe, Oakland, Washtenaw and Wayne) in the summer of 2002.



These counties were quarantined to prevent the movement of ash trees and ash products outside the infested counties. In August 2003, the quarantine was expanded to include the seven counties surrounding the core infested area. Emerald Ash Borer has also been detected in Essex County, Ontario, Canada. It is a pest that affects ash trees and belongs to a group of insects known as metallic woodboring beetles. To date, it has damaged or killed millions of ash trees in these affected areas, and threatens Michigan's estimated 700 million ash trees.

## Distribution / Host

The Emerald Ash Borer is not native to Michigan or anywhere else in North America. It is found primarily in Asia and has occurred in China, Korea, Japan, Mongolia, Taiwan and Eastern Russia. In Michigan, this pest is only known to attack green, white or black ash trees; it does not attack mountain ash, which is not a true ash. Ash trees can be identified by their distinctive leaves and bark. Ash trees have seven leaflets per leaf stem, and the leaves are located directly across from each other.



*D-shaped exit hole*

*woodpecker damage*



*Ash tree leaf*



## Michigan Emerald Ash Borer Response Project

Michigan Department of Agriculture  
Michigan Department of Natural Resources  
Michigan State University  
U. S. Department of Agriculture,  
Animal and Plant Health Inspection Service  
U. S. Department of Agriculture,  
Forest Service



*Actual  
Size*

## For More Information

For general information, visit the state's Emerald Ash Borer web site at [www.emeraldashborer.info](http://www.emeraldashborer.info) or MDA's web site at [www.michigan.gov/mda](http://www.michigan.gov/mda) and use the key word, "ash borer."

To report any signs of Emerald Ash Borer or potentially infested ash trees outside of the CORE area, call the state's toll-free Emerald Ash Borer hotline at (866) 325-0023 or contact your local MDA or MSU Extension office.

For EAB regulatory information, contact:

**Michigan Department of  
Agriculture**  
Pesticide & Plant Pest Management Div.  
P.O. Box 30017  
Lansing, MI 48909  
Phone: (517) 373-1087  
Fax: (517) 335-4540

# PEST ALERT:



## Emerald Ash Borer

### An Unwanted Hitchhiker



## Identification / Appearance

Emerald Ash Borer adults are dark metallic green in color, 1/2-inch in length and 1/16-inch wide. They are only present from late May to late July. Larvae are creamy white in color and are found under the bark. Their appearance typically goes undetected until trees show symptoms of being infested.

## Symptoms

Infestation of Emerald Ash Borer can be difficult to detect until tree canopy die-back occurs – usually the upper third of a tree will thin and die-back. This is usually followed by a large number of shoots or branches arising below the dead portions of the trunk. Evidence of infestation includes D-shaped exit holes on branches and the trunk. Callous tissue produced by the tree in response to larval feeding may also cause vertical splits to occur in the bark. Distinct S-shaped larval feeding tunnels may also be apparent under the bark.

S-shaped larval feeding tunnels

Shoots and branching below EAB activity on trunk

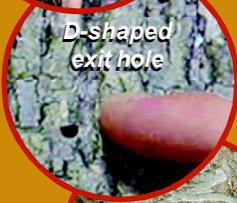
Adult  
Emerald Ash  
Borer



Emerald Ash Borer larvae



Vertical split in bark



D-shaped exit hole



## Preventing the Spread of EMERALD ASH BORER

To prevent and control the spread of the Emerald Ash Borer, state officials have issued a quarantine on all ash tree materials and firewood in 13 Southeastern Michigan counties and several small isolated infestations in the state's Lower Peninsula. The 13 quarantined counties are: Genesee, Ingham, Jackson, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Shiawassee, Washtenaw, and Wayne.

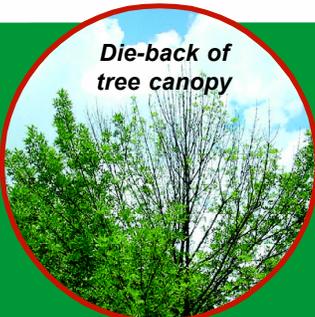
Additionally, a generally infested CORE area has been identified. Regulated material may not be transported out from the CORE, not even within the quarantine unless remaining in the CORE.\* A quarantine is also in place around several "outliers," isolated infestations not within the 13 quarantined counties. Visit [www.michigan.gov/mda](http://www.michigan.gov/mda) for the most up to date quarantine provisions and outlier site locations.

Simply put, it is illegal to move ash trees or ash products from the CORE; or any quarantined county or outlier site, unless chipped to a diameter of one inch or less.

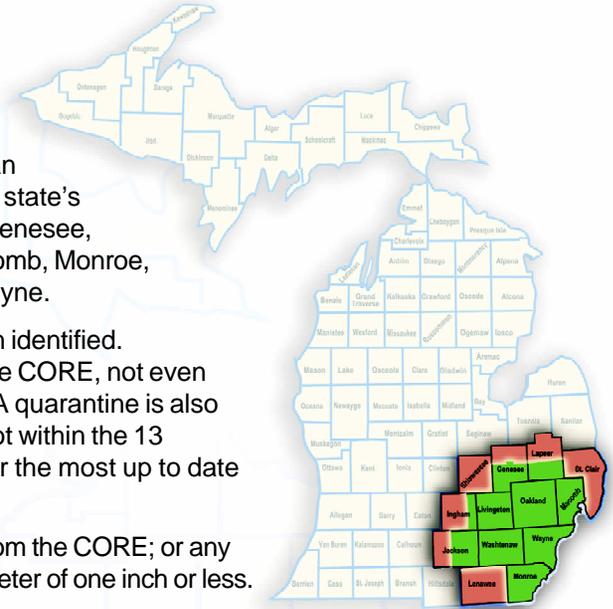
Since it can be difficult to identify the type of tree that firewood originated from, it is also illegal to move ANY TYPE of firewood from a quarantined area. Firewood may appear healthy and not visibly infested but may carry the Emerald Ash Borer larvae in its dormant stage. **Don't be responsible for the spread of Emerald Ash Borer by moving ash trees and products outside these affected areas or by taking firewood on vacation with you.**

Imagine how your neighborhood or favorite vacation spot would look with all of the ash trees gone. If you have inadvertently moved firewood out of this area, please burn it completely and report it via the state's toll-free **Emerald Ash Borer hotline, (866) 325-0023.**

It is vitally important that you cooperate with the state to help limit the spread of this destructive ash tree pest.

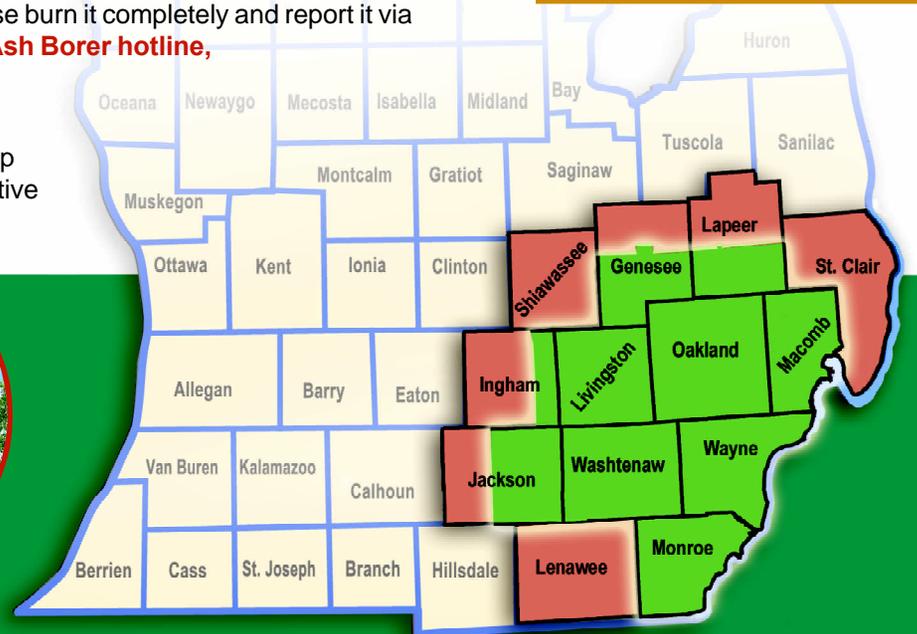


Die-back of tree canopy



EAB Quarantined Counties ■  
EAB Quarantined CORE Area ■

Visit [www.michigan.gov/mda](http://www.michigan.gov/mda) for quarantine outlier site locations



\* Visit [www.michigan.gov/mda](http://www.michigan.gov/mda) for current CORE boundary by township.