

# Fact Sheet: Emerald ash borer

## *Agrilus planipennis*

## Demystifying The Emerald Ash Borer Oct. 2008

### Possible Impact:

It is estimated that there are 8 billion Ash trees in the United States and **147 million** in Indiana. This represents approximately **6% of all forest trees in Indiana**. Ash has also been extensively planted the past 15 years as a street tree throughout Indiana, estimated as 20-40% of the total street tree population.<sup>1</sup>

### Where Is EAB?

Recently there has been significant activity in Indianapolis, Fishers and even one siting in Brown County. There are 20 Counties within Indiana that have been quarantined due to the Emerald Ash Borer these are:



Adams	LaGrange	Wells
Allen	Marion	White
Brown	Noble	Whitley
Dekalb	Porter	
Elkhart	Randolph	
Floyd	St. Joseph	
Hamilton	Stueben	
Huntington	Wabash	



Photo: David Cappaert

This borer attacks all varieties of ash (*Fraxinus*) trees including:

**White ash** (*Fraxinus americana*)  
**Green ash** (*Fraxinus pennsylvanica*)  
**Pumpkin ash** (*Fraxinus profunda*)  
**Black ash** (*Fraxinus nigra*)  
**Blue ash** (*Fraxinus quadrangulata*)

### Signs to Look For:

- D-shaped, 3-4 millimeter holes (1/8<sup>th</sup> of an inch)
- Woodpecker activity
- Epicormic growth
- Die back in the crown of the tree
- The adult borer is bright granulate green and app. 1/3 of an inch long

### Emergence of the Emerald Ash Borer:

- When we hit 375-600 heat degree days (app. early-mid May in this area)
- The pest travels 1/2 mile a year, so it could take a while to move across a county. Its life cycle may be 1-2 years.

**Adults** They emerge from May to June with peak in July, and lay eggs on the smooth bark of ash trees.

**Eggs** Eggs hatch and go through larval stages, then bore into wood in September to feed. This feeding damages the sap wood of the tree as the pest makes its feeding tubes.

**Larvae** Larvae develop over winter in the tree and emerge in May and June, starting the cycle over.

### Recommended Treatment Strategies:

#### Sound tree care will help Ash trees in general

**Water** All trees need approximately 1 inch of water per week, especially June-September and right before going into winter.

**Fertilize** A good granular fertilization or a professionally performed liquid ground injection once per year is recommended.

**Tree Preservation During Construction** Take care when building near ash trees to do as little damage to the roots, trunk and crown as possible. Ash trees are not tolerant of construction damage.

**General Care** Take care to keep the lawn mower and string trimmer away from the trunk of the tree. A light layer of mulch can protect the trunk from mechanical damage. Realize that a weakened tree is a magnet for borers.

**General Pruning** Remove dead and dying limbs from your mature trees. Cable trees with weak limb junctions.

(continued on reverse)

### Indiana Department of Natural Resources Info:

"A new, exotic beetle feeding on ash (*Fraxinus* sp.) trees was discovered in southeastern Michigan and identified in July 2002 as *Agrilus planipennis* Fairmaire (Coleoptera: Buprestidae). Larvae feed in the phloem and outer sapwood, producing galleries that eventually girdle and kill branches and entire trees. On April 21, 2004, Emerald Ash Borer was confirmed in Indiana."

**From the INDNR:** WE NEED YOUR HELP! If you see this beetle or notice trees with signs of damage, PLEASE...

**IMMEDIATELY** report the information by calling the Indiana Department of Natural Resources at (317) 232-4120. Note the date and location where you found the EAB or damaged tree. Capture the EAB in a plastic jar and place it in the freezer to kill it.

### Carefully wrap the beetle and send to:

**Indiana Department of Natural Resources  
Division of Entomology and Plant Pathology  
402 West Washington Street  
Room W290  
Indianapolis, IN. 46204-2739**

Visit Online: [www.entm.purdue.edu/EAB/](http://www.entm.purdue.edu/EAB/)

<sup>1</sup> Emerald Ash Borer in Indiana: The New Reality, Ellis, Jody, Department of Entomology, Purdue University.

## **BURN UP YOUR FIREWOOD EVERY WINTER!**

Do not keep your leftover wood through summer. This is especially true for Ash, which is white-wooded firewood. **Don't contribute to the problem because you think you're saving money.** Simply buy more wood next year. Do not transport wood to your campsite, lake house etc. Buy it in the county you are visiting and burn it all or leave leftovers there.

### **What To Do If the Emerald Ash Borer is Found In Your Area:**

- Spray **small trees** with Tempo, Decathlon, Scimitar in early May and again 30 days later. **Larger trees** may be treated with Imidicloprid products like Merit and Advanced Multi Insect Killer Concentrate. Check the label to make sure it is labeled for EAB.
  - ◊ Apply to the **root zone** of the trees in **May and June or possibly in August** and then again in **May of the next year.**
  - ◊ Always follow the manufacturer's directions. **Do not over-treat!**
- Larger trees may also warrant **professional treatments** with Arborject, Mauget or Koritz.

**When in doubt, call an expert who is a Certified or Registered Consulting Arborist.**

### **Removal Strategies:**

Remove small ash and replant with more appropriate species such as:

- Ginkgo
- Oak species
- Maple species
- Tulip
- Hackberry
- Sweet & Sour Gum
- American Beech
- Cucumber Tree

### **Other Resources:**

#### **About Emerald ash borer:**

<http://www.emeraldashborer.info>  
<http://www.entm.purdue.edu/EAB/> (In Indiana)

#### **Find an Arborist**

Find a Consulting Arborist- American Society of Consulting Arborists  
[www.asca-consultants.org](http://www.asca-consultants.org)  
Find a Tree Care Company- Tree Care Industry Association  
[www.tcia.org](http://www.tcia.org)  
Find a Practicing Arborist- International Society of Arboriculture (ISA)  
[www.isa-arbor.com](http://www.isa-arbor.com)

#### **State Arborist Associations:**

Indiana Arborist Association [www.indiana-arborist.org](http://www.indiana-arborist.org)  
Illinois Arborist Association [www.illinoisarborist.org](http://www.illinoisarborist.org)  
Ohio Arborist Association [www.ohiochapterisa.org](http://www.ohiochapterisa.org)  
Wisconsin Arborist Association [www.waa-isa.org](http://www.waa-isa.org)  
Michigan Arborist Association [www.wmich.edu/mfpa](http://www.wmich.edu/mfpa)  
Kentucky Arborist Association [www.kyisatree.org](http://www.kyisatree.org)

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**Consultants to the Professionals!**

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