

August 26, 2006

Fact Sheet: Emerald ash borer, *Agrilus planipennis*



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*)

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 beetle or damaged tree.
Capture the beetle in a plastic jar and place it in the freezer to kill it.

- Carefully wrap the beetle and send it to:
 - Indiana Department of Natural Resources
Division of Entomology and Plant Pathology
402 West Washington Street, Room W290
Indianapolis, IN. 46204-2739
<http://www.entm.purdue.edu/EAB/>

Possible impacts

It is estimated that there are 8 billion Ash trees in the United States and 147 million in Indiana. This represents ~ 6% of all forest trees in Indiana. The tree has also been extensively planted over the last 15 years as a street tree throughout the state with the numbers estimated as 20-40% of the total street tree population.¹

Where Is EAB? (*Jody Ellis: A New Reality*)

Emerald ash borer has been found throughout Michigan's Lower Peninsula and in areas in Ohio and Indiana. Following is a list as of February 21, 2006 of quarantined counties and infested townships in Indiana:

Adams County:

- *Root Township*
- *Washington Township*

Hamilton County:

- *Clay Township*
- *Delaware Township*

LaGrange County:

- *Clay Township*
- *Lima Township*
- *Newbury Township*
- *Van Buren Township*

Marion County:

- *Lawrence Township*
- *Washington Township*

Randolph County:

White River Township

Steuben County:

- *Jamestown Township*
- *Millgrove Township*

Huntington County

- *Huntington Township*
- *Union Township*

Signs to look for

- D shaped holes 3-4 millimeter holes (1/8th of an inch)
- Wood pecker activity
- Epicormic growth
- Die back in the crown of the tree
- The adult borer is bright granulate green about the 1/3 of an inch long.

Emergence of Emerald ash borer

- When we hit 375-600 heat degree days (Approximately early to mid May in Carmel area)
- The pest travels ½ mile a year, so it could take a while to move across a county.
- Life cycle- may have a one- two year life cycle.
 - **Adults**- emerge from May to June with peak in July
 - **Adults**- lay eggs on smooth bark of ash.

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

- **Eggs**- hatch and go through larval stages then bore into wood in September to feed. This feeding damages the sap wood of tree as the pest makes its feeding tubes.
- **Larva**- over winters in the tree to emerge in May and June starting the cycle over.

Recommended Treatment Strategies

First and foremost

- Sound tree care will help Ash trees in general
 - **Water**- all trees need ~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.
 - **Tree preservation during construction**- Take care when building around ash trees to do as little damage to the roots, trunk and crown as possible as 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.
- **Burn up your firewood every winter**
 - Do not over-summer your left over wood. Especially Ash which is white wooded firewood. **Don't be cheap** buy more next year.
 - Do not transport wood to your campsite, lake house etc. Buy it in the county you are going to visit and leave leftovers there.

If the ash borer is found in your area

- Spray small trees with Tempo, Decathlon, Scimitar in early May and then 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. I.E. 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	○ Maple species
○ Oak species	○ Tulip and others

Further Resources

- <http://www.emeraldshborer.info>
 - <http://www.entm.purdue.edu/EAB/> (In Indiana)
 - http://www.in.gov/dnr/files/ep-MultiState_EABpos_20080923.JPG (EAB quarantine map)
- **Find an Arborist**
 - Find a Consulting Arborist- American Society of Consulting Arborists
www.asca-consultants.org
 - Find a Tree Care Company- Tree Care Industry Association
www.tcia.org
 - Find a Practicing Arborist- International Society of Arboriculture (ISA)
www.isa-arbor.com

State Arborist Associations

- Indiana Arborist Association www.indiana-arborist.org/
- Illinois Arborist Association www.illinoisarborist.org
- Ohio Arborist Association www.ohiochapterisa.org/
- Wisconsin Arborist Association www.waa-isa.org/
- Michigan Arborist Association www.wmich.edu/mfpa/
- Kentucky Arborist Association www.kyisatree.org

Sincerely



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