



# Arrest That Pest!

## EMERALD ASH BORER in Indiana

### **Emerald Ash Borer (EAB) Background Information**

**Teachers:** After determining your cooperative learning groups, photocopy the following pages. Then cut out each section along the dotted line. Make sure each student has a copy of her/his assigned section. Note: Vocabulary words are highlighted in **bold**.

#### **Section Six**

*What are the signs and symptoms of an ash tree infested with EAB?*




The **canopy** of heavily infested trees will begin to die, usually near the top of the tree and progressing down the trunk. Sometimes ash trees produce **epicormic sprouts** or what are sometimes called “water sprouts” or “witches brooms” on the trunk or large branches where EAB damage is heavy.

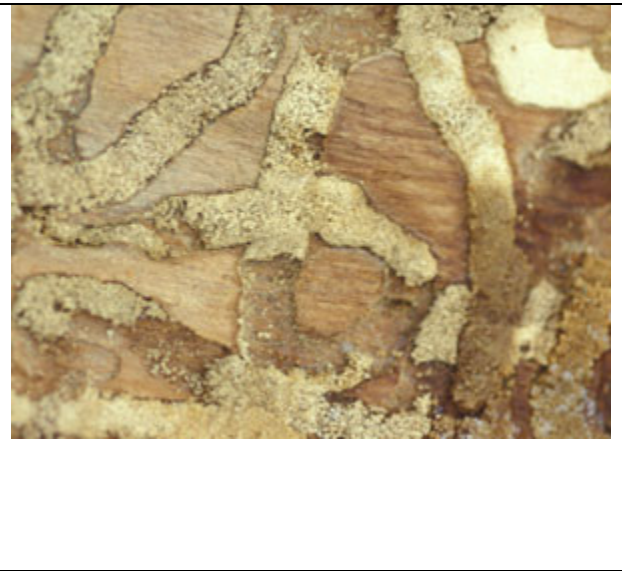

Bark may crack over **larval galleries** and result in **vertical splits** through which distinctive “S” shaped galleries can be viewed. As the borer chews out these tunnels, it leaves behind insect **excrement**, or what scientists call **frass**. Adult beetles leave a characteristic “D” shaped exit hole in the bark, roughly 1/8” in diameter when they **emerge** in June.

Woodpeckers often attack larvae, especially during the winter. Woodpecker holes are larger and easier to see than the D-shaped holes left by EAB. Several infestations have been discovered because people noticed woodpecker damage in trees. The distinctive “S” shaped tunnels excavated by feeding larvae destroy the water and nutrient conducting tissues under the bark. The tree literally starves to death in as little as 1 to 3 years.

<<http://www.entm.purdue.edu/EAB>>

## Section Six Continued

		
<p>Canopy of tree is dying, sign of EAB infestation Photo by: Dan Herms</p>	<p>Epicormic Sprouts Photo by: Dan Herms</p>	<p>S-shaped larval galleries Photo by: Dan Herms</p>

	
<p>EAB frass Photo by: Dan Herms</p>	<p>D-shaped emergence holes Photo by: Dan Herms</p>



Woodpecker eating EAB