



EMERALD ASH BORER



The emerald ash borer (EAB) is a very small but very destructive beetle, killing all species of ash trees. Metallic green in color, its slender body measures 1/2 inch in length and 1/8 inch wide. The average adult beetle can easily fit on a penny. The larval stage of this insect feeds on the cambium layer of the tree between the bark and wood, producing galleries that girdle and eventually kill branches and the entire tree.



Native to China and eastern Asia, the EAB probably landed in North America hidden in wood packing materials commonly used to ship consumer goods, auto parts, and the like. Although no one can say for sure when EAB arrived in southeastern Michigan, the scientific community now believes the beetle went undetected for decades, based on its widespread distribution and destruction. EAB was officially identified in the summer of 2002.



Emerald Ash Borer was officially identified in Wisconsin in August of 2008. The first infestation was located in the Village of Newburg in Ozaukee County in the southeast part of the state.

In terms of the range and extent of the EAB infestation in North America, the human element is of particular significance. Unknowingly, people's behaviors associated with everyday living and commerce has greatly contributed to the spread of the EAB. The movement of any ash tree products (e.g., branches, logs, woodchips, nursery stock, and firewood) advances the spread of EAB. The most significant of these that should be of interest to you is to limit the movement of firewood. Wisconsin state parks and campgrounds currently limit the firewood brought by campers to within 50 miles of that particular campground.

Entomologists from the United States and Canada have been studying the EAB to learn more about its biology and behavior. Because this pest has never been found anywhere in North America prior to the current infestation, this information is being continually updated.

Scientists have discovered that the beetle can develop from egg to adult in as little as 1 year in the midwest. From May to August, adults emerge from overwintering sites under bark to mate. Females lay eggs in bark crevices, and the eggs hatch in about 10 days. The eggs develop into



wormlike larvae, which tunnel under the bark to feed and grow throughout the fall. This activity eventually kills the tree. Larvae lay dormant during the winter and emerge from trees in May as adults, leaving a unique D-shaped exit hole.

Signs and Symptoms: It is extremely difficult to determine whether an ash tree is infested with EAB because tree decline is usually gradual. Early symptoms of an infestation might include dead branches near the top of a tree or perhaps wild, leafy shoots growing out from its lower trunk. D-shaped exit holes and bark splits exposing S-shaped tunnels are significant signs of EAB.



Here are some key points about the Emerald Ash Borer:

- EAB attacks only ash trees (*Fraxinus* spp.); all species of ash are at risk – green, white, black, etc. except the mountain ashes (*Sorbus* spp.), which are not a true ash.
- EAB is a good flyer but tends to fly only relatively short distances (about 1/2 mile). It is spread more widely by human movement of ash wood products. DO NOT move firewood; this has been determined to be the greatest cause of spread of forest pests throughout the state.
- Natural predation will not control EAB: the beetle has no known predators in North America, although woodpeckers will eat them.
- EAB infestation is always fatal to ash trees. Infested trees will decline from the top down and will be dead in 1 to 3 years, even if the trees were healthy before being attacked by EAB.
- EAB is under a great deal of scientific scrutiny now. New information and discoveries are continually being found and updated.
- EAB was found in the state of Wisconsin in August 2008.



It is thought that EAB introduction and movement throughout Wisconsin is inevitable. Currently the State of Wisconsin has adopted an Emerald Ash Borer response plan with a goal to identify appropriate and effective response actions to be taken by federal and state agencies. These actions include prevention, detection, communication, regulation, and removal activities.

For more information on the Emerald Ash Borer contact the Village of Howard Forestry Division or visit these websites:

- www.emeraldashborer.wi.gov
- www.emeraldashborer.info
- www.entomology.wisc.edu/emeraldashborer

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