

DREADED TREE KILLER AT WISCONSIN'S DOORSTEP

Wisconsin's ash trees don't know what's coming, but foresters do and they're preparing for the arrival of a dreaded tree killer.

That killer is the emerald ash borer (EAB), a small, emerald green beetle that hitchhiked from Asia to the Midwest inside cargo packing materials. EAB larvae tunnel beneath the bark of ash trees, cutting off the tree's food and water supply and killing it within several years. Even healthy ash trees have little resistance to the borer.

Wisconsin's communities are facing a hard hit from this insect. Cities throughout the upper Midwest planted ash trees to replace the elms lost to Dutch elm disease in the 1960s and 70s. An estimated 30% of Wisconsin's street trees are ash. There are an estimated 717 million ash trees in Wisconsin threatened by EAB, and according to state and federal officials, tree replanting because of EAB could cost Wisconsin municipalities as much as \$2.4 billion. In addition to the cost of tree removal and replacement, homeowners will pay higher electric and water bills because without the shade of ash trees air conditioners will run more and lawn watering will increase. Storm water peak flows will increase and pavement degradation will accelerate from the loss of tree canopy. Property values will decline.

It is believed that this pest was accidentally introduced to the Detroit area in the early 1990's. Because no one knew that EAB was here, it silently hitchhiked into several other states and Ontario, Canada before it was discovered in 2002. In 2005 EAB was found in the eastern part of Michigan's Upper Peninsula. In the summer of 2006 the pest was found at a number of sites in northern Illinois, putting it only about 30 miles from Wisconsin. EAB has not been found in Wisconsin as of December 2006.

This Emerald Ash Borer can fit on a penny, but the damage it causes is huge. Able to infest trees as small as 1 inch in diameter, nearly every ash tree in the path of this insect has been killed. Michigan has lost 15 million ash trees and has already spent tens of millions of dollars trying to control it. Symptoms of EAB infestation include a declining leaf canopy, sprouting along the trunk of a live ash tree, bark cracks covering larval galleries, and 1/8" D-shaped holes made by emerging adults. Adult beetles are dark green and approximately 1/2" in length, are present from May to August.

EAB isn't just small and dangerous to ash trees, it's also elusive. The insect spends nearly all of its life hidden under the bark, and signs of infestation are very difficult to spot until a tree has been infested for 2 or 3 years. Currently, the best way to locate EAB is to cut down ash trees and look for the larvae feeding underneath the bark. Using another technique, foresters remove a strip of bark around a live ash tree to weaken it. Since the ash borer prefers to breed in weakened trees, it should infest this wounded tree rather than healthy trees if it is present. The trees are cut down in the fall and their bark is peeled to look for EAB larvae.

Campgrounds and urban areas are thought to be at highest risk of EAB introduction due to accidental transport in firewood. Industries that use ash have taken steps to minimize the risk of additional EAB spread, but many people are unaware of the risks of long-distance firewood movement. Thus, public awareness is a major key to preventing the spread of EAB and other threats such as the gypsy moth and beech bark disease.

So far, EAB detection efforts in Wisconsin have included visual surveys in campgrounds and in urban areas, peeling declining ash that may harbor EAB, and the preparation of 'detection trees' (wounded ash that attract EAB) in State Parks, State Forests and National Forests. Foresters are looking for symptoms of EAB infestation as they walk through forest lands, and city foresters and arborists are on alert in Wisconsin's urban areas. These efforts haven't found EAB, but it is inevitable that the pest will arrive here in the future if it isn't already here.

Wisconsin's strategic plan to fight the emerald ash borer stresses prevention and early detection. Federal officials have quarantined more than 21,000 square miles in Illinois, Indiana, Michigan, and Ohio to prevent new areas from becoming infested with the pest. In 2006 Wisconsin's National Forests banned firewood from outside the state, and the DNR has implemented a rule that prevents campers from bringing firewood that was cut more than 50 miles away into a state campground. These rules may be inconvenient for some visitors, but this is dwarfed by the impact that the introduction of EAB would have.

The public is urged to be on the lookout for the ½ inch long, metallic-green beetle as well as declining ash trees. For more information on emerald ash borer, visit <http://emeraldashborer.wi.gov/>. The public can report suspected emerald ash borer adults or infestations by contacting the Department of Agriculture, Trade Consumer Protection at 1-800-462-2803.