A metallic green beetle is killing ash trees in Illinois. Here's what you can do to help prevent its spread.

Out of the Ashes

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On the streets of the Windings subdivision last summer, the story played out like a police drama. A killer had been identified in this Kane County community. Alerts were issued. The township quickly fell under quarantine. The victims: Ash trees that once lined the streets were being killed by a methodical enemy—a foreign agency known to many as EAB.

Officials braced for battle. The emerald ash borer must be destroyed. This small, metallic-green beetle is deadly to ash (*Fraxiinus*) trees, and if not contained, is expected to wipe out the state's 130 million ash trees; even worse, it could decimate the entire ash population in North America. It has already victimized an estimated 25 million ash trees within Michigan, Ontario, Ohio, Maryland, Indiana, Illinois and now Pennsylvania.

The beetle is rather harmless, as it only nibbles on foliage. About ½-inch long and ⅛-inch wide, the adult can fly up to a ½ mile during flight season, which is May through July. Flying up in the canopy, beetles are rarely visible and leave little evidence of their presence, until it is too late. During the flight season, the adults mate and each female lays 50-60 eggs on the bark of ash trees. The larvae bore in, making S-shaped galleries as they feed on the trunks, thereby cutting off the nutrient and water supply of the tree causing stress and rapid decline. The following year, larvae change into the pupal stage, and then mature to the adult stage. The adult beetle chews its way through the bark and exits leaving a D-shaped hole which is about ⅛-inch across. Until the tree becomes heavily infested with EAB, there is little evidence of their presence except a few, tiny emergence holes. Once the tree is infested, there is nothing that can be done; except wait until September and then have the tree removed.

Roughly 130 million ash trees in Illinois are threatened by the emerald ash borer.

EAB is native to Asia, and was first found in Michigan and neighboring Windsor Ontario in 2002. Allegedly, the

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beetle hitchhiked here on infested wood pallets or wood packing crates. Even though it was found in 2002, from what we know about this beetle, it probably was here a few years prior to its discovery. The same can be said about EAB in Illinois. While it was found in 2006 in the Windings in Kane County, an additional 11 other sites were confirmed within Kane (affecting Campton, Elgin, Plato, Blackberry, Hampshire and Batavia townships), another five sites were confirmed in northern Cook County (affecting Wilmette, Winnetka and Evanston), one in DuPage County (affecting Glendale Heights) and another in LaSalle County (affecting Peru). Because of the numerous confirmed sites, the IDA, the lead agency charged with controlling EAB, expanded its EAB quarantine in July 2007 to cover the 18 northeastern counties in northern Illinois affecting the entire counties of Boone, Cook, DeKalb, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, LaSalle, McHenry, Putnam, Will and Winnebago; and portions of Bureau, Lee, Livingston and Ogle counties.

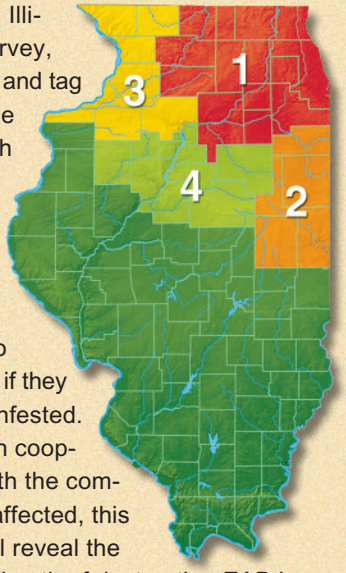
In addition to the two quarantined areas issued by the IDA, the USDA issued a federal quarantine for the state of Illinois barring the movement of any firewood across state lines.

Regulated articles include ash nursery stock and green lumber; any other ash material including logs, stumps, roots, branches, as well as composted and uncomposted wood chips. Due to the difficulty in distinguishing between species of hardwood firewood, all hardwood firewood, including ash, oak, maple and hickory, are regulated articles. Firewood that is sold and transported out of Illinois commercially must be certified and be accompanied by a USDA issued Shield or PPQ Form 540.

IDA is working in cooperation with the USDA Animal and Plant Health Inspection Service, USDA Forest Service, Department of Natural Resources, University of Illinois Extension, Illinois Natural History Survey and other interested entities such as the Morton Arboretum. The IDA has focused its efforts on the detection, control/eradication and outreach efforts of EAB in Illinois as specified in a cooperative agreement with USDA-APHIS.

IDA has identified four priority zones (illustrated) within the northern 35 counties within Illinois to survey, GPS-map and tag an average of nine ash trees per township. Later, the trees will be bark stripped to determine if they are EAB infested. Working in cooperation with the communities affected, this survey will reveal the extent and path of destruction EAB has left in Illinois. The survey will include bark peeling to determine if EAB larvae are present.

A larvae leaves an S-shaped trail as it feeds beneath the bark of this ash.



In 2006, IDA officials surveyed 320 trees in Kane County and approximately 500 trees in north Cook/south Lake counties during the fall and winter. Nearly 5,200 trees are expected to be surveyed in 2007.

Results of the survey and any additional confirmations and quarantine expansions are kept up-to-date on IDA's EAB-dedicated Web site at www.IllinoisEAB.com.

Since this invasive pest hitchhiked its way to the states, it is evident that its keen ability to freeload unnoticed is the cause for its exacerbated spread. Campers who tote their own firewood have unwittingly been the accessory to this killer beetle's crimes. Therefore, the state has issued an EAB quarantine in the infested areas that prohibits the removal of the following items from their respective quarantined areas:

- The emerald ash borer in any living stage of development.
- Ash trees of any size.
- Ash limbs and branches.
- Any cut, non-coniferous firewood.
- Bark from ash trees and wood chips larger than 1 inch from ash trees.
- Ash logs and lumber with either the bark or the outer 1 inch of sapwood, or both, attached.
- Any item made from or containing the wood of the ash tree that is capable of spreading the emerald ash borer.
- Any other article, product or means of conveyance determined by IDA to present a risk of spreading the beetle infestation.

Anyone convicted of moving prohibited items from the quarantine areas without prior certification by an IDA nursery inspector may be fined up to $500.

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