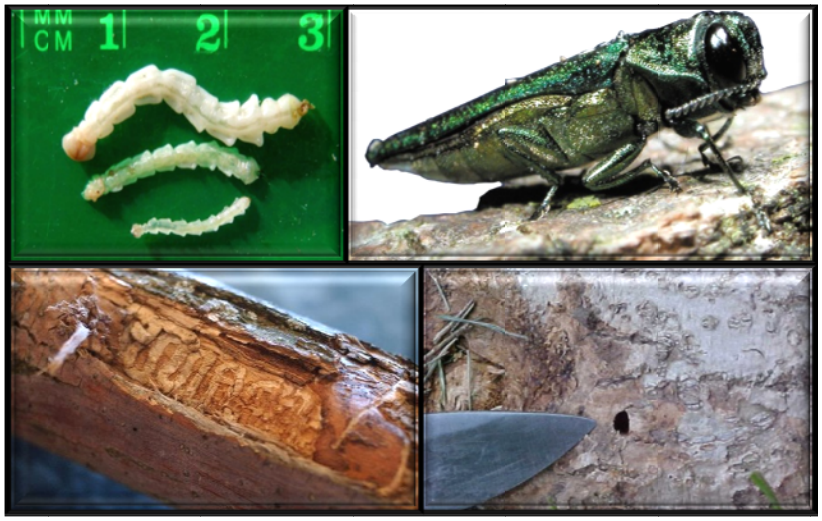
EMERALD ASH BORER

NOT KNOWN TO
OCCUR IN IDAHO



Common Name: Emerald Ash Borer

Scientific Name: *Agrilus planipennis*

Introduction:

The emerald ash borer (*Agrilus planipennis*) is an exotic insect, native to Asia, which currently threatens ash trees (*Fraxinus* spp.) in the Great Lakes region. Since its initial discovery in southeastern Michigan in 2002, it has spread throughout Michigan's Lower Peninsula, into the Upper Peninsula and into nearby Ohio, Indiana and Ontario, Canada. Outlier infestations have also been confirmed (summer 2006) in Kane and Cook counties in Illinois, and in Prince George County, Maryland. An estimated 20 million ash trees have been killed by emerald ash borer in these infested areas.

Identification and Biology:

Emerald ash borer adults are metallic green in color and belong to a group of insects known as the metallic wood-boring beetles (Buprestidae). Adults are .38 - .5 inch long and .06 inch wide. Adult emerald ash borers emerge through the bark of ash trees late May - July, creating a D-shaped exit hole as they chew their way out of the tree. Emerald ash borer adults live approximately three weeks and have been observed well into the month of August. Adults are most active during the day, favoring warm, sunny weather. Adults are often found feeding on the margin of ash tree foliage. Mating occurs soon after adult emergence, with egg laying occurring a few days later. Eggs are laid singularly in bark crevices, with females laying 60-90 eggs throughout their lifetime. As eggs hatch, the first instar larvae chew their way through the bark until they reach the cambial region.

Emerald ash borer larvae are white in color, slightly flattened and have a conspicuous pair of brown pincher-like appendages (urogomphi) on the last abdominal segment. The size of larvae varies as they pass through each instar, with mature larvae averaging 1.5 inches in length. As larvae feed they wind back and forth, creating characteristic serpentine shaped galleries in the phloem and outer sapwood. As mature larvae complete their feeding in the fall they excavate a pre-pupal chamber in the outer sapwood where they stay to overwinter. Pupation occurs in this same chamber the following spring, thus completing the life cycle. Recent scientific evidence suggests that in areas with low-level infestations, emerald ash borer requires two years to complete its life cycle.

Host Trees:

The emerald ash borer appears to feed exclusively on ash tree species in North America. Thus, the four native species of ash in Wisconsin, white (*Fraxinus americana*), green (*F. pennsylvanica*), black (*F. nigra*) and blue (*F. quadrangulata*) are all susceptible to this pest.

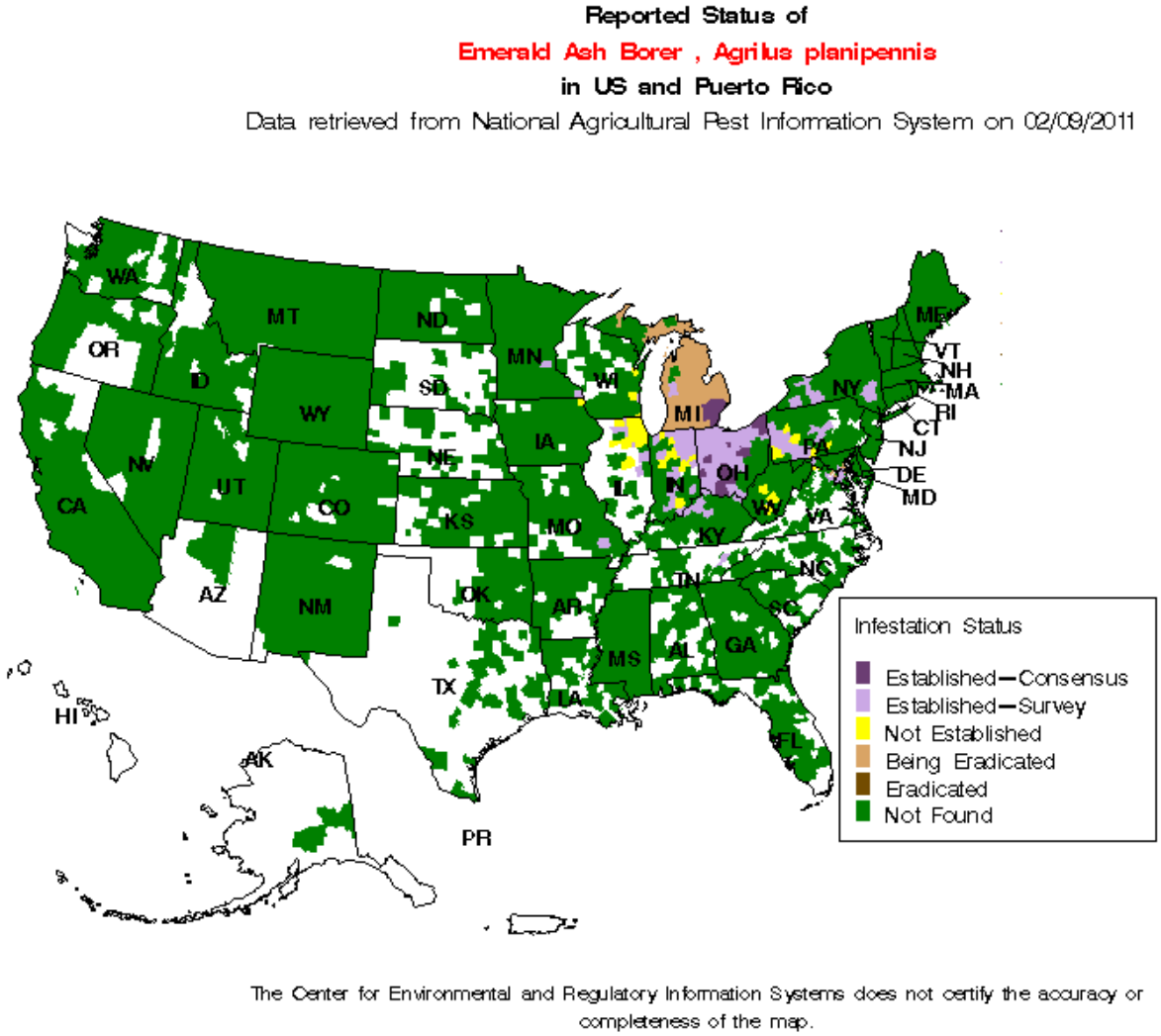
Other Resources:

http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/index.shtml

http://dnr.wi.gov/forestry/fh/ash/index.htm

http://www.invasivespeciesinfo.gov/animals/eab.shtml#fed

http://www.michigan.gov/mda/0,1607,7-125-1568_2390_18298,00.html



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