

Emerald Ash Borer: A Future Threat to Salmon River Forests?

By Salmon River Steward Greg Chapman

The recent arrival of emerald ash borer in North America has landowners and foresters on alert for this invasive forest pest. Emerald ash borer selectively infests and quickly kills healthy ash trees, including white, green and black ash trees – species common to the Salmon River corridor and surrounding area. In 2008, the Salmon River Steward program offered public education exhibits and presentations on emerald ash borer.

Since it was first discovered in North America in 2002, emerald ash borer has spread to 10 states and two Canadian provinces. It is likely responsible for the deaths of tens of millions of ash trees, according to the United States Department of Agriculture. Infestations are capable of destroying entire stands of ash, and emerald ash borer may be as potentially devastating to ash trees as the Dutch elm disease was to the American elm.

As of November 2008, the emerald ash borer had not yet been found in the forests of the Salmon River corridor or anywhere in New York. Infestations in Pennsylvania, Ontario and Quebec, however, threaten to slowly spread into New York through natural range expansion. Emerald ash borer could arrive here more quickly, however, on transported firewood or lumber.

Area foresters, landowners and the New York State Department of Environmental Conservation (NYSDEC) consider the threat from emerald ash borer to be real. Extensive surveying is taking place in high-risk areas, including the nearby St. Lawrence River corridor.

The NYSDEC has enacted regulations prohibiting the movement of firewood more than 50 miles from its source to prevent or slow the spread of destructive forest insects and pathogens. When it comes to firewood, campers are encouraged to "burn it where you buy it."

Other metallic green beetles may be found in the Salmon River corridor, and other pathogens and environmental stresses may adversely affect the health of our ash trees. Anyone suspecting the presence of emerald ash borer is encouraged to confirm their suspicions using photos and information online at www.dec.ny.gov or www.EmeraldAshBorer.info. Report suspected sightings of emerald ash borer to The Nature Conservancy at 315-387-3600 x22.

> *Emerald ash borer adult. Photo: David Cappaert, Michigan State University*



The statements and views expressed in this publication are those of the Eastern Lake Ontario Dune and Salmon River Stewards who are student authors. 5/2009

A Primer on Emerald Ash Borer

General Information

- Wood boring beetle native to China and eastern Asia
- Infests and kills otherwise healthy ash trees (ash trees may total 20% of the forest in Salmon River corridor)
- First found in North America in 2002 near Detroit, MI
- Can spread via transported firewood, lumber & nursery stock
- New York State Department of Agriculture & Markets estimates total economic value of NY's white ash trees at \$1.9 billion dollars

Life History

- Larvae hatch in late spring or early summer
- Larvae feed on tissue layer beneath ash trees' bark, then burrow deeper into sapwood where they aggressively feed until autumn, destroying essential conductive tissue
- Larvae overwinter in the tree; adults emerge May-June of the next year
- Adults mate soon after emergence, and lay eggs under the bark of nearby ash trees
- Eggs hatch within 7-9 days, starting the life cycle once more

Identifying Emerald Ash Borer

- Shiny, metallic green beetle, 1/2" long and 1/8" wide, seen May-August
- Larvae leave S-shaped feeding "galleries" beneath ash bark
- Emerging adults leave distinct, D-shaped emergence holes, about 1/8" wide
- Known North American range as of November 2008 includes Illinois, Indiana, Michigan, Missouri, Ohio, Pennsylvania, West Virginia, Wisconsin, and Canadian provinces of Ontario and Quebec

What is Being Done - What You Can Do

- Surveying is underway to detect outbreaks in high-risk areas, e.g., NY's St Lawrence River region
- Biologists are seeking chemical & biocontrol options, e.g., parasites from the pest's native range
- Only current method of limiting outbreaks is eradicating all ash trees in infested areas
- Do not transport firewood more than 50 miles. Cut or purchase where it will be used.
- Report suspected sightings of emerald ash borer along Salmon River to The Nature Conservancy at 315-37-3600 x22.

For More Info: Eastern Lake Ontario Dune & Salmon River Steward Program, 315-312-3042

The Eastern Lake Ontario Dune Steward & Salmon River Steward Program is managed by New York Sea Grant in partnership with the New York State Department of Environmental Conservation, New York State Parks, and The Nature Conservancy









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Emerald ash borer adult. Photo: David Cappaert, Michigan State University