

## Emerald Ash Borer: What Do You Know About It?

Imagine an insect arriving in an area where there is an unlimited food supply and no natural predators. This is the kind of dream life the emerald ash borer is leading in North America. This insect attacks healthy ash trees, causing damage that leads to mortality within a few years. The emerald ash borer has already killed several millions of ash trees since it was first discovered here in 2002. You can play a role in detecting its presence and halting its spread by learning about the risks associated with the movement of firewood. By educating ourselves about this exotic insect, we can all do our part to protect Canada's ash trees.

The emerald ash borer was first detected in the United States and Ontario in 2002, and in Quebec in 2008. This insect native to Asia probably arrived in wood packaging material or dunnage on merchant ships and it then took refuge in forests and towns. Its spread was facilitated by the movement of infested firewood and nursery stock. Since it has no natural enemies in Canada, this exotic pest poses a major economic and environmental threat to urban and forested areas.

English common name:  
Emerald ash borer

Scientific name:  
*Agilus planipennis* Fairmaire

French common name:  
Agrile du frêne

Order: Coleoptera

Family: Buprestidae

Colour of adult beetle:  
Metallic green

Length:  
Between 7.5 and 15 mm

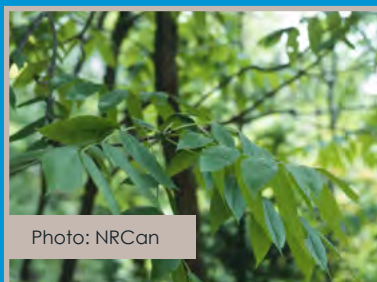


Photo: NRCan

### Diet

The larvae feed on the inner bark, whereas the adults feed on the leaves.

### Hosts

All species of ash trees.

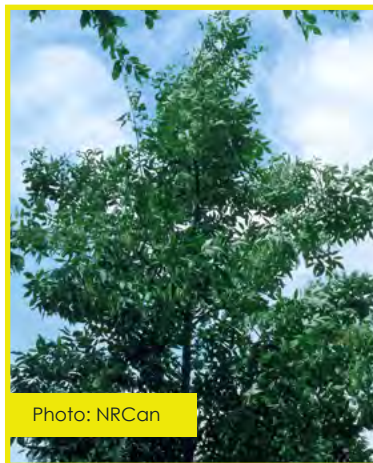


Photo: NRCan

### Parts of tree attacked

Trunk, branches, leaves.

### Modes of dispersal

The adult insect can fly over several kilometres, but human activity remains the most important factor contributing to the pest's spread (movement of firewood, nursery stock, trees, logs, lumber, wood with bark still attached and wood or bark chips).

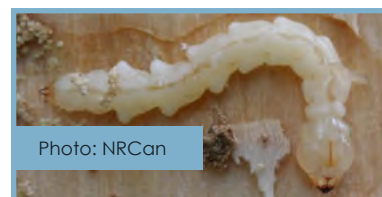


Photo: NRCan



Photo: NRCan

### Life cycle

- June to August: eggs are laid in bark crevices on the trunk and branches;
- 10 days later: the larvae hatch;
- June to October: the larvae excavate meandering galleries under the bark and feed on the inner bark (phloem) and the outer sapwood;
- overwinters under the bark;
- April to May: pupation occurs;
- June to August: emergence of adults;
- ability to adapt its life cycle to changing climatic conditions.



Photo: NRCan

# Branching Out

from the Canadian Forest Service - Laurentian Forestry Centre

## Signs of infestation

- Presence of woodpeckers in winter and woodpecker holes;
- thinning crown;
- reduced foliage density;
- shoots growing from the trunk or branches;
- deformed bark areas;
- vertical cracks on the trunk;
- small D-shaped emergence holes;
- S-shaped tunnels under the bark filled with fine sawdust;
- evidence of adult feeding on leaves (beginning in late May).



Photo: NRCan



Photo: Michigan Department of Agriculture



Photo: NRCan

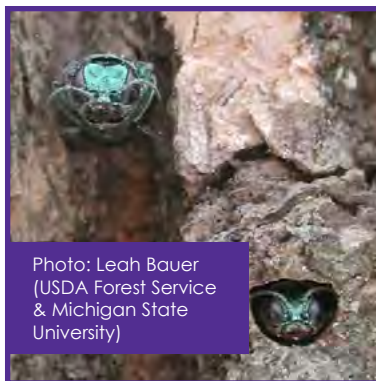


Photo: Leah Bauer (USDA Forest Service & Michigan State University)



Photo: NRCan

## Regulatory context

This insect is one of the pests regulated by the Canadian Food Inspection Agency (CFIA). **In regulated areas, it is forbidden to move the following material:** nursery stock, trees, logs, rough lumber (including pallets and other wood packaging materials), bark, wood or bark chips from ash trees, and firewood of all species. For information on the regulated areas:

<http://www.inspection.gc.ca/english/plaveg/pestrava/agrpla/regrestrice.shtml>

## Control

Mechanical and silvicultural, chemical, biological, genetic resistance and integrated pest management. For more information:

<http://www.exoticpests.gc.ca/control-details/insect/1>  
<http://www.cfs.nrcan.gc.ca/pubwarehouse/pdfs/31746.pdf>

Fo113-1/71-2012F-PDF  
 978-1-100-98568-8



Photo: CFIA

## Useful links

CFIA:  
<http://www.inspection.gc.ca>

Trees, insects and diseases of Canada's forests:  
<http://tidcf.nrcan.gc.ca>

Forest Invasive Alien Species of Canada:  
<http://www.exoticpests.gc.ca>

Canadian Forest Service of Natural Resources Canada:  
<http://cfs.nrcan.gc.ca>

A single piece of firewood can **DESTROY** millions of trees.

Moving firewood, even just a few kilometres away, can spread invasive insects and diseases to our forests.

## DON'T MOVE FIREWOOD

Buy it locally. Burn it on site. Never bring it back home.

For more information call 1-800-442-2342 or visit [www.inspection.gc.ca](http://www.inspection.gc.ca)

Canada

**Important!**  
 If you think you have seen an emerald ash borer, please contact the CFIA:  
 1-866-463-6017