

Emerald Ash Borer: Raising Awareness in Northwestern Ontario

**Northern Ontario First Nations Environmental Conference
September 30, 2014**

Shelley Vescio – EAB Task Force for NWO



Emerald Ash Borer Task Force - Northwestern Ontario

- Formed in 2011
- Members:
 - Canadian Food Inspection Agency (CFIA)
 - OMNR, City of Thunder Bay, Independent FN Alliance, Treaty 9
 - OFAH, Master Gardeners, Lakehead U, Confederation College, Invasive Species Centre, community members
- To provide a coordinated regional approach to preventing the arrival and spread of EAB in NWO



Emerald Ash Borer Task Force - Northwestern Ontario Goal

To **prevent** the introduction of Emerald Ash Borer into
Northwestern Ontario

*If introduced, to **slow** the spread of Emerald Ash Borer
in all Northwestern Ontario forests, including the
urban trees in our communities.*



Building Awareness of Threat of EAB



EAB Display Events



Hymers Fall Fair



Lake Superior Days



EAB Display Events



**NO First Nations
Environmental Conference**



**Provincial
Parks**



EAB Display Events



EAB Awareness Day



CFIA Materials Mailed to Stakeholders

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

Canadian Food Inspection Agency / Agence canadienne d'inspection des aliments

Canada

Canadian Food Inspection Agency / Agence canadienne d'inspection des aliments

Pest Alert

Emerald Ash Borer

(Agrilus planipennis)



Larva
David Cooney, MDQ

D-Shaped Emergence Hole
CFIA Windsor

Adult
G.G. Wood, CFIA

Actual Size
8.5 - 14mm

The Emerald Ash Borer (EAB) is a highly destructive insect pest of ash trees. Native to eastern Asia, this pest was first discovered in Canada and the U.S. in 2002. The EAB has killed millions of ash trees in Southwestern Ontario, Michigan and surrounding states, and poses a major economic and environmental threat to urban and forested areas in both countries. The EAB attacks and kills all species of ash (except Mountain ash which is not a true ash).

Signs of Infestation
Tree decline, including:

- thinning crown
- diminished density of leaves
- evidence of adult beetle feeding on leaves
- long shoots growing from the trunk or branches
- vertical cracks in the trunk
- small D-shaped emergence holes
- S-shaped tunnels under the bark filled with fine sawdust

How does the EAB spread?
While the EAB can fly up to several kilometres, another significant factor contributing to its spread is the movement of firewood, nursery stock, trees, logs, lumber, wood with bark attached and wood or bark chips.

Contact the CFIA
If you see suspected signs of infestation on your ash trees or if you plan on moving firewood (e.g., when camping, relocating or managing a woodlot), contact the Canadian Food Inspection Agency (CFIA) for more information.

Help Protect Canada's Trees and Forests.
Canada 1-866-463-6017
Monday to Friday, 8:00 a.m. to 4:00 p.m.
www.inspection.gc.ca

Tree Decline
James W. Smith, MDQ

Ash Leaf
Ash Woodlot, CFIA

S-Shaped Tunnels
CFIA Windsor


Canada



Northern Ontario Municipal Association


36 Member Municipalities

DON'T MOVE FIREWOOD



Emerald Ash Borer Task Force

Northwestern Ontario



Hitchhiking insects like the Emerald Ash Borer can kill forests

www.dontmovefirewood.ca

April 24, 2013

Dear NOMA Member,

You may be aware that Emerald Ash Borer (EAB), an invasive species from Asia, has killed millions of ash trees in North America over the past decade.

In response to this threat, the Emerald Ash Borer Task Force – Northwestern Ontario aims to enhance our corporate and community citizens' awareness of the EAB threat, so they can act!

Let us help you be PROACTIVE! Your municipality is in the rare and fortunate position to address the EAB threat before it arrives here. As of fall 2012, EAB had not yet been detected in Northwestern Ontario, but it is as close as Sault Ste. Marie, Ontario and St. Paul, Minnesota, and spreading.

SPREAD THE MESSAGE!

Please contact our EAB Task Force to find out more about public education materials at WWW.DONTMOVEFIREWOOD.CA.

EAB larvae burrow under the bark of ash trees and create "galleries" that disrupt the normal flow of water and nutrients. Thousands of larvae infest and kill the tree within three to four years. Adult beetles fly, but poorly, so they move more effectively by hitchhiking in ash firewood. Firewood should be obtained locally, burned on site and never transported to other locations.

HELP WITH DETECTION – Host traps

Participating in early detection efforts could pay huge dividends in saving your community's ash trees. We need your help!

Widespread detection efforts will help us to find EAB early. If found early enough, it may be possible to contain EAB. The two most reliable detection methods are trapping and early detection branch sampling. Trapping is easy—Green prism traps with lures are hung in the crowns of ash trees and need only be assessed twice over the course of three months (June 1 – August 31.)

Visual surveys for symptoms of infestation are inefficient. By the time a tree shows evidence of decline, the infestation is well underway and the EAB population is high and, therefore, uncontrollable.

Emerald Ash Borer Task Force

NORTHWESTERN ONTARIO

At Risk!

FOR QUESTIONS OR TO REPORT FINDING EMERALD ASH BORER

Contact the Canadian Food Inspection Agency EAB Hotline—1 866 463 6017

www.inspection.gc.ca



OUR GOAL—

To prevent the spread of Emerald Ash Borer into Northwestern Ontario.

If introduced, to slow the spread of Emerald Ash Borer in all Northwestern Ontario forests, including the urban trees in our communities.



Emerald Ash Borer larvae grow to between 20 to 32 mm in length. The adult beetle measures 8.5 - 13mm.

ONLY USE LOCAL FIREWOOD!

Invasive species, including Emerald Ash Borer, can spread in firewood moved from one place to another.

Firewood should be obtained locally, burned on site, and left behind.



Emerald Ash Borer Task Force

At Risk!

Emerald Ash Borer Task Force



At Risk!

Help Protect NORTHWESTERN ONTARIO



Northwestern Ontario First Nations and Metis Councils

- Union of Ontario Indians
- Nishnawbe Aski Nation (NAN) -Treaty 9
- Grand Council Treaty 3
- Red Sky Metis Nation
- Thunder Bay Métis Council
- Atikokan & Surrounding Area Interim Métis Council
- Kenora Métis Council
- Northwest Métis Nation of Ontario Council
- Sunset County Métis Council



2013 EAB Awareness Campaign

- \$25,000 from Invasive Species Centre
- Ads in media outlets (including newspapers, radio and websites) for municipalities and First Nations across Northwestern Ontario
- Numerous articles in magazines and newspapers



'Don't Move Firewood' Billboards



**DON'T MOVE
FIREWOOD**

Hitchhiking insects like
the **Emerald Ash Borer**
can kill forests

www.dontmovefirewood.ca

Dawson Road



Pigeon River Border Crossing



Fort Frances



Rainy River



Ontario Youth Rangers



Lake Superior Provincial Park



Peterborough, ON



2014 EAB Ribbon Campaign

EAB Kills Ash Trees Like *THIS* one



Learn the signs of Emerald Ash Borer (EAB) and who to contact.

Educate Yourself!

invasiveinsects.ca 

Actual Size

EAB Kills Ash Trees Like *THIS* one



Emerald Ash Borer (EAB) takes no prisoners.

Infested ash may be removed, replaced or treated with pesticide.

Protect This Tree!

invasiveinsects.ca 

Actual Size

EAB Kills Ash Trees Like *THIS* one



Emerald Ash Borer (EAB) hitchhikes in firewood

Don't Move Firewood!

invasiveinsects.ca 

Actual Size

- Funded by the MNR
- \$2200
- 3 templates and 18 rolls of tape (500' ea)
- 3 messages
- Bug costume
- www.invasiveinsects.ca
- Bar code 

2014 EAB Ribbon Campaign



Fight EAB!





Emerald ash borer is here, now what do I do?

A toolkit for Canadian landowners and land managers

Information for:	Identify:	Municipal planning:
Municipalities	Ash trees	Tree inventory
Homeowners	EAB-infested trees	Survey for EAB
Woodlot owners	Emerald ash borer	Planning for EAB
Land managers	Resources	Insecticide options

Current, science-based Emerald Ash Borer information for:

- Municipal delegates tasked with finding out more about emerald ash borer (EAB), how it may affect their community, and options for dealing with it.
- Homeowners trying to decide what to do about the ash tree in the yard.
- Rural landowners making decisions about how to manage ash trees in their woodlot, windbreak or yard.
- Land managers responsible for trees on private land such as school grounds, golf courses, or businesses.

NEW:

Thunder Bay's ribbon campaign 
New research: controlling EAB with natural enemies



From left: healthy ash tree; EAB adult; EAB larva; ash trees dying of EAB attack. Images: Silv-Econ Ltd.

If you think you have found EAB in Canada outside of an [EAB regulated area](#), contact the Canadian Food Inspection Agency: 1-866-463-6017.

Contact us to [give us your feedback](#).

Development of this initiative funded by:



The next invader:



Hemlock woolly adelgid

Photo: Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

Tweets

Follow

Emerald ash borer 25 Sep
 @EABCanada
 Keeping Mississauga Beautiful
cnw.ca/EL8g2 via @CNWNews

Emerald ash borer 22 Sep
 @EABCanada
 Guelph staff to plant trees in response to emerald ash borer, National Forest Week
guelphmercury.com/news-story/487... via @guelphmercury
 Expand

Chris MacQuarrie 22 Sep
 @CMacQuar
 Salvaging Beetlemania
alternativajournal.ca/community
 Tweet to @EABCanada

Thunder Bay ties on green ribbons for EAB awareness

Green Ribbons can be seen on hundreds of ash trees in the City of Thunder Bay this summer. The green ribbons show residents the trees that could be killed by EAB when it arrives, and shows the extent of the impact this beetle will have on Thunder Bay's urban forest - about one quarter of all City of Thunder Bay street trees are ash trees. This public awareness campaign is being organized by the EAB Task Force of Northwestern Ontario with assistance from the Grade 7 class of Mr. Charles at Westmount School, and Mrs. Canuel's Grade 9 class from St Ignatius High School.



City of Thunder Bay launches EAB ribbon campaign.

Emerald Ash Borer has not yet been found in the Thunder Bay region. However, it is close - it is in Sault Saint Marie ON to the east and Superior WI to the south. This year there will again be dozens of green prism traps hanging in ash trees all around the region and in the City, to monitor for the beetle's arrival.



Ash tree with EAB survey trap

Find more information about [EAB](#) and the [City of Thunder Bay](#).



Slow The Spread:

EAB hitchhikes in firewood, and on vehicles and people:
*Use local firewood.
*Check your car and clothing for adult beetles before leaving EAB-infested areas



Go to:

[Ash tree ID](#)

[Options for ash trees](#)

[Deciding whether to treat](#)

[About EAB](#)

[Learn more](#)

Resources & links:

[Resources page](#)

[CFIA](#)

[NRCan](#)

[EAB Info](#)

LIVING ▶

VISITING ▶

DOING BUSINESS ▶

CITY GOVERNMENT ▶

Online Services

About Thunder Bay ▶

Accessibility ▶

City Services & Info ▶

Art, Culture and Heritage ▶

Recreation & Parks ▶

Children & Youth ▶

Older Adults ▶

Environment ▼

Adopt-a-Road

Air Quality

Flood Prevention Measures

Just for Kids

Pesticides

Recycling & Waste Management, Landfill ▶

Urban Forestry ▼

Standards for Planting Trees

Pruning Guide

Public Tree By-law

Request a Tree

Tree Protection Standards

Water Quality & Conservation ▶

Water - Drinking Water ▶

Water - Waste Water ▶

Transit & Getting Around ▶

House & Yard ▶

Animal Services ▶

Public Safety ▶

Life Events ▶

Awards ▶

Volunteering ▶

> [Home](#) > [Living](#) > [Environment](#) > [Urban Forestry](#) > [Common Tree Concerns](#) > Emerald Ash Borer in the Region - Help Prevent its Arrival

EMERALD ASH BORER IN THE REGION - HELP PREVENT ITS ARRIVAL

The Emerald Ash Borer (EAB) has devastated ash trees in southwestern Ontario and parts of the United States since its discovery in Detroit, Michigan in 2002. EAB is an introduced insect pest from Asia that attacks and kills all species of ash (*Fraxinus*) trees. Note that the mountain ash tree is not a true ash tree (*Sorbus americana*) and is not threatened by this pest.

If you think you have found an EAB beetle please call the CFIA at 1-866-463-6017.

DON'T MOVE FIREWOOD

Hitchhiking insects like the Emerald Ash Borer can kill forests

www.dontmovefirewood.ca

EAB and Ash Tree Identification Guide [Adobe PDF, 1 page, 31 5KB](#)

EAB Ribbon Campaign Launch Address June 2014 [Adobe PDF, 3 pages, 188 KB](#)

EAB is a major economic and environmental threat that has killed more than 20 million ash trees in Ontario. Currently EAB has not been detected in Northwestern Ontario. In Thunder Bay, with over 25% of our city's municipal trees (and an unknown number of private trees) being ash, the invasion of this pest is of great concern. EAB's rapid spread has brought it as close to Northwestern Ontario as Sault Ste. Marie, Ontario and St. Paul, Minnesota in only a few short years.


FEATURED VIDEOS





1 ● Our Strategies

Collecting seeds, educating the community, and planting new trees every year are some of the ways Mohawk tribal members are working to protect and re-establish black ash stands in and around their reservation.


Key Terms

Canopy 

Regeneration 

Seed orchard 

Invasive species 

Infestation 



Video Transcript (PDF)

environment/Default.aspx

<http://www.nmai.si.edu/environment/akwesasne/Strategies.aspx>



Early Detection



Training for Early Detection Branch Sampling Technique




2011



2012



Training for Early Detection Branch Sampling Technique



GRAND COUNCIL TREATY #3
"To Protect, Preserve and Enhance Inherent and Treaty Rights"
THE ANISHINAABE NATION
IN TREATY #3

NOTICE TO THE ANISHINAABEG OF TREATY #3

Grand Council Treaty #3
And
Emerald Ash Borer Task Force - Northwestern Ontario
And
Ontario Ministry of Natural Resources

INVITES YOU TO AN:
Emerald Ash Borer
Early Detection Branch Sampling Training Session

Date: May 17, 2012
Location: 510 9th Street North, Kenora, On
Time: 9:00am – 12:00pm

Who should sign up for the session? The session is open to individuals who wish to learn more about emerald ash borer, its life cycle, damage impacts and survey techniques. An update of the current situation in Ontario will be provided.

The first part of the session will be held indoors from 9 – 10 am with an emerald ash borer presentation, followed by a question and answer period.

The second portion of the session will be held outdoors where a demonstration will occur of the branch sampling methodology that is used to detect early infestations of Emerald ash borer.

This field session will be informal and a great opportunity to ask any further questions. Please wear appropriate field clothing.

****Travel expenses will NOT be covered****


For additional information, contact Brad Wesley at GCT#3 807-548-4214 or email: Brad.Wesley@treaty3.ca

2012



Branch Sampling in 2011 and 2013




 Natural Resources Canada / Ressources naturelles Canada

Frontline

Forestry Research Applications

Canadian Forest Service - Sauff Ste. Marie Technical Note No. 111

Detection of Emerald Ash Borer in Urban Environments Using Branch Sampling

K. L. Ryall, J. G. Fildgen, J.J. Turgeon

The emerald ash borer (EAB), *Agrilus planipennis* Fairmaire (Fig. 1), a non-native insect pest of Asian origin, presently infests large numbers of ash (*Fraxinus* spp.) trees in Ontario and Quebec and could soon spread to other provinces.




Fig. 1. Adult emerald ash borer





Fig. 2. Healthy-looking ash tree with no visible signs or symptoms, but determined to be infested with EAB using branch sampling.

One of the many requirements for effective management of EAB is early detection of infestations, when densities are still low and before signs and symptoms are obvious. Visual surveys rely on external signs and symptoms (e.g., exit holes, larval tunnels seen through cracks in the bark, feeding by woodpeckers or squirrels) that may not be noticeable for 2 to 3 or more years after the arrival of the population, particularly if the infestation begins in the upper part of the tree. *Sticky traps* baited with an attractant have the potential to detect EAB adults in an area before signs or symptoms become visible, but may not necessarily provide information on the infestation status of individual trees.

Ryall et al. (2010) sampled many ash trees with no obvious signs or symptoms of EAB attack (Fig. 2) and showed that branch sampling was an effective method of detecting EAB-infested trees; indeed, 74% of the infested trees would have been discovered if the method described below had been used. The purpose of this note is to describe this basic sampling technique.





Prism Trapping In Thunder Bay and Region



Prism Traps Numbers

- CFIA
- MNR
- City Of Thunder Bay

Location	CFIA	MNR	City TBay
Atikokan	3		
Barwick	1		
Dryden	1	2	
Emo	1		
Fort Frances	3	2	
Ignace	1		
Kenora	3	1	
Lenore Lake	1		
Nestor Falls	1		
Nipigon	1	1	
Pigeon River	1	1	
Quetico		1	
Rainy River	1		
Red Rock	1		
Schreiber		1	
Thunder Bay	22		48
Upsula	1		
Whitefish Resort		1	
Total	42	10	48

Trap/Lure Distributors and Costs

- 3 distributors in Canada
 - Synergy Semiochemicals Corp. (BC)
 - Distributions Solida (QUE)
 - Sylvar Technologies (NB)



- green leaf volatile lure (3Z-hexenol)
- pheromone lure (3Z-lactone)



Trap and Lure Distributors

2014 Prices

	Trap + Hook + Leaf Lure	+ Pheromone Lure
Synergy	\$26.32	\$52.31
Solida	\$25.85	\$51.24
Sylvar		\$49.99

- Shipping costs
- Discounts available for bulk orders
- City of Thunder Bay – Sylvar Technologies
 - 50 complete traps – bulk discount to \$39.99 ea
 - \$235 (shipping)
 - Total = \$2525
- Case of Tanglefoot Aerosol Spray– 12/\$165.24



EAB Trap Survey Protocol

- Account for costs of setting up, assessing and removal
- CFIA protocol
- Install traps by June 1 and remove by August 31
- Check mid-July for insects



Influencing Decision Makers & Management



2013 Meetings with Ontario Provincial Ministers/MPP



Minister Michael Gravelle



Minister David Oraziotti

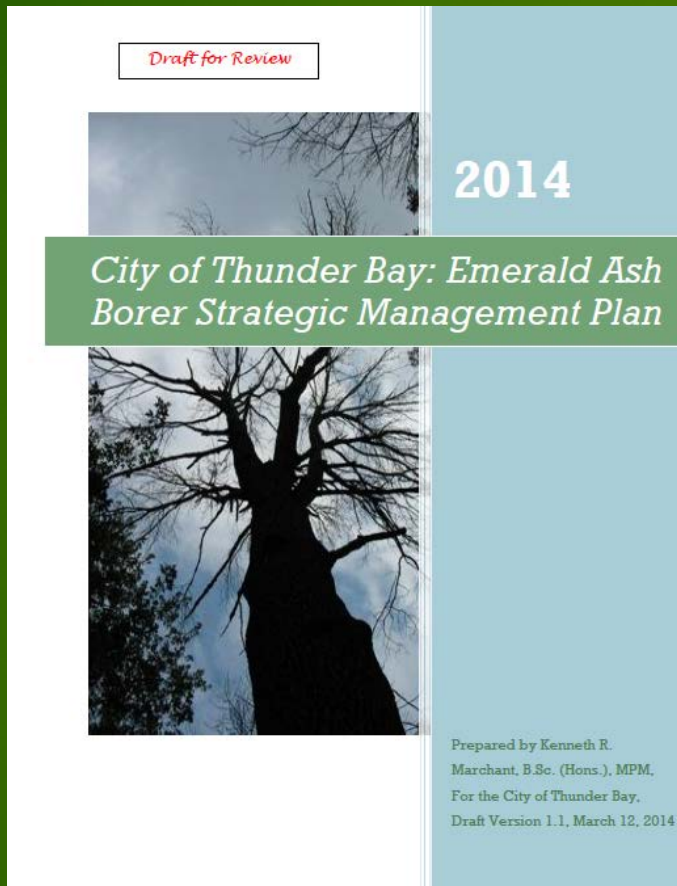


Hon Bill Mauro, MPP



Invasive Species Act





City of Thunder Bay
- 6,500 street and park
ash trees

Passive

- Remove and replace as ash trees die
- \$6.7 million (over 10 yr)

Active

- Treat 30% or 50% of eligible trees (>20cm dbh)
- Remove and replace untreated as they die
- \$6.4 million for 30%
- \$6.1 million for 50%





Next Steps?

- Wood disposal
- Update tree inventory
- Wait



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