### THE EMERALD ASH BORER



### Covered in this Presentation:

- Ash Trees
- Ash Trees in London
- What is the Emerald Ash Borer and how is it affecting Ash Trees?
- What is the city's plan to deal with the problem?
- What can you do?







#### Mission:

ReForest London is a non-profit organization dedicated to partnering with our community to enhance environmental and human health in the Forest City, through the benefits of trees.

- Empowerment
- Ecosystem Health
- Education







# THE GOAL OF THE MILLION TREE CHALLENGE IS TO PLANT 1,000,000 TREES IN 10 YEARS

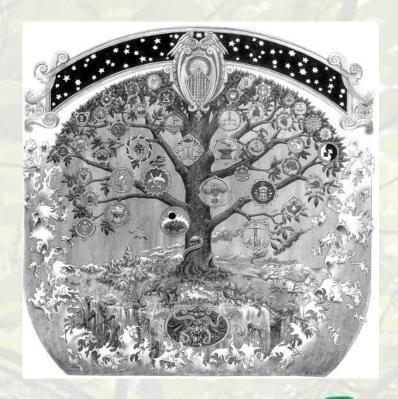
ANY SPECIES, PLANTED BY ANYONE,
ANYWHERE WITHIN THE CITY OF LONDON





#### Ash Trees

- In Norse mythology, the World Tree Yggdrasil is an ash tree, and the first man, Ask, was formed from an ash tree.
- Snakes were said to be repelled by ash leaves or a circle drawn by an ash branch.







#### Ash Trees

- Irish folklore claims that shadows from an ash tree would damage crops.
- In Cheshire, it was said that ash could be used to cure warts or rickets.
- In Sussex the ash and elm tree were known as the Widow Maker because the large boughs would often drop without warning







# How to Identify Ash Trees



Ridged Bark



Seeds



Compound "Opposite" Leaves



**Opposite Branches** 

### London's Ash Trees



- 10.2% of the total number of trees and 7.3% of the City's total leaf cover
- Many planted after Dutch elm disease spurred a massive die-off of elm trees in the 1960s and 1970s





# About the Bug

- Discovered in London in November 2006 on a few properties
- Poses a significant risk to about 20,000 trees in our yards and city streets
- It also poses a serious risk to about 10 per cent of all trees in natural areas







#### How Did it Get Here?

 Its North American origin is believed to be Detroit/Windsor and it is thought to have been introduced accidentally on wood pallets from Asia







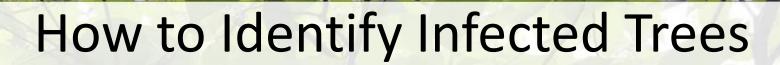
### What does the Bug do?

- The adult EAB is actually quite harmless
- Most of the damage is a result of the feeding larvae, the insect's young
- The tiny white larvae gouge paths through the cambium, the layer just below the bark that transports nutrients to the rest of the tree
- By cutting off nourishment, the young borers slowly starve the tree to death











Crown Dieback



**Bark Cracks** 



Woodpeckers



**Exit Holes** 



**Tunnels** 

### Extent of the Problem



- Since discovered in 2002 the EAB has killed tens of millions of ash trees across much of eastern north America.
- The insect has cost municipalities, property owners, nursery operators and forest products industries tens of millions of dollars.

#### For us this Means:



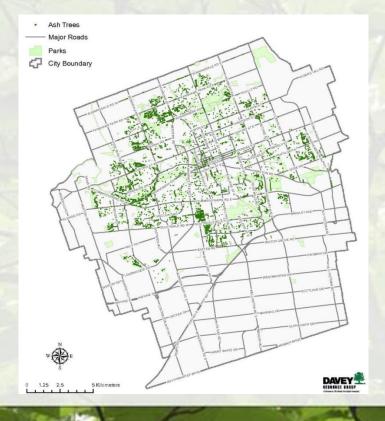
- London will loose over half a million ash trees worth approximately \$130 million dollars over the next 7-10 years.
- The impact to our urban forest will be substantial.





# What is the City's Plan?

- Emerald Ash Borer Strategy presented September, 2011
- The strategy presents three main remedial activities







# Injections

• TreeAzin, a bio-insecticide injected directly into the base of the tree with no hazard to the user or environment.







#### Removal of Dead and Hazardous Trees



- City crews are removing dead and hazardous trees on City property and identifying locations for replanting as part of ongoing operations.
- Wood is then either mulched or used by homeowners as firewood





# 2:1 Replanting Plan



- Not all planted trees will survive.
- Planting two trees for each one lost will ensure that the City's long-term overall leaf cover is not compromised.





#### What Can You Do?

- 98% of ash trees are found on private property
- If you have the Emerald Ash borer in your ash tree, take immediate steps to determine the degree of infestation, the health of the tree and appropriate action.







### **Options for Action**

- Depending on the health of the tree you have the same options as the city:
- 1. Tree injection treatments
- 2. Proactive removal while the tree is partially alive; or
- 3. Removal of dead and hazardous trees







### Treatment - TreeAzin

- Treating your tree is usually less expensive than removing it. If the tree is healthy with 70% or more of its leaves, TreeAzin injections have been proven to provide very good control of EAB.
- Costs range from \$150 for a small tree upwards to \$650 for a 80 cm diameter at breast height Ash tree







### Doing Nothing: a Dangerous Option

 If you do nothing, the tree will die become brittle, break easily and present a hazard.







# **Diversity Rules**

 Planting a wide range of native tree species will protect us from large species specific losses in the future







# If you Need Help...

To get help to assess your tree call the City of London at:

519-661-2500 ext. 5783

You can always call us here at **ReForest London**:

519-936-9548 info@reforestlondon.ca www.reforestlondon.ca







