

Marple Tree Commission

Emerald Ash Borer (EAB)

by

Jim Elliott, Research, Pictures, Power Point Design & Editing

Neil Lipson, Research & Pictures

Contributors: Marianne Price & Rick Ray

**The Emerald Ash Borer is moving across the US
destroying about 98% of
the Ash trees in its path!**



What happens after initial infestation?

All ash trees are expected to die in an area within a maximum of 10 years but in many cases the loss will be within 3 to 5 years. Control measures can slow it, to some degree and an additional year should be added to the time for it to move through a county. It can't be stopped!

Home owners will have to bear the brunt of the cost for either treating mature trees or the even higher cost of removing the tree once it dies, which can cost between \$2000 and \$4000 dollars depending on tree size and access to one's property.

Healthy trees can be saved!

Healthy trees can be treated with an insecticide. This treatment can cost as little 100.00 per year. Depending on the number of ash trees and size to be treated.

What is the life cycle of the emerald ash borer?

The emerald ash borer life cycle can occur over one or two years. Adult beetles are typically bright metallic green and about 1/3 inch long. A typical female can live around six weeks and lay approximately 40 to 70 eggs, but females that live longer can lay up to 200 eggs.



Emerald Ash Borer



Bug in Hand!



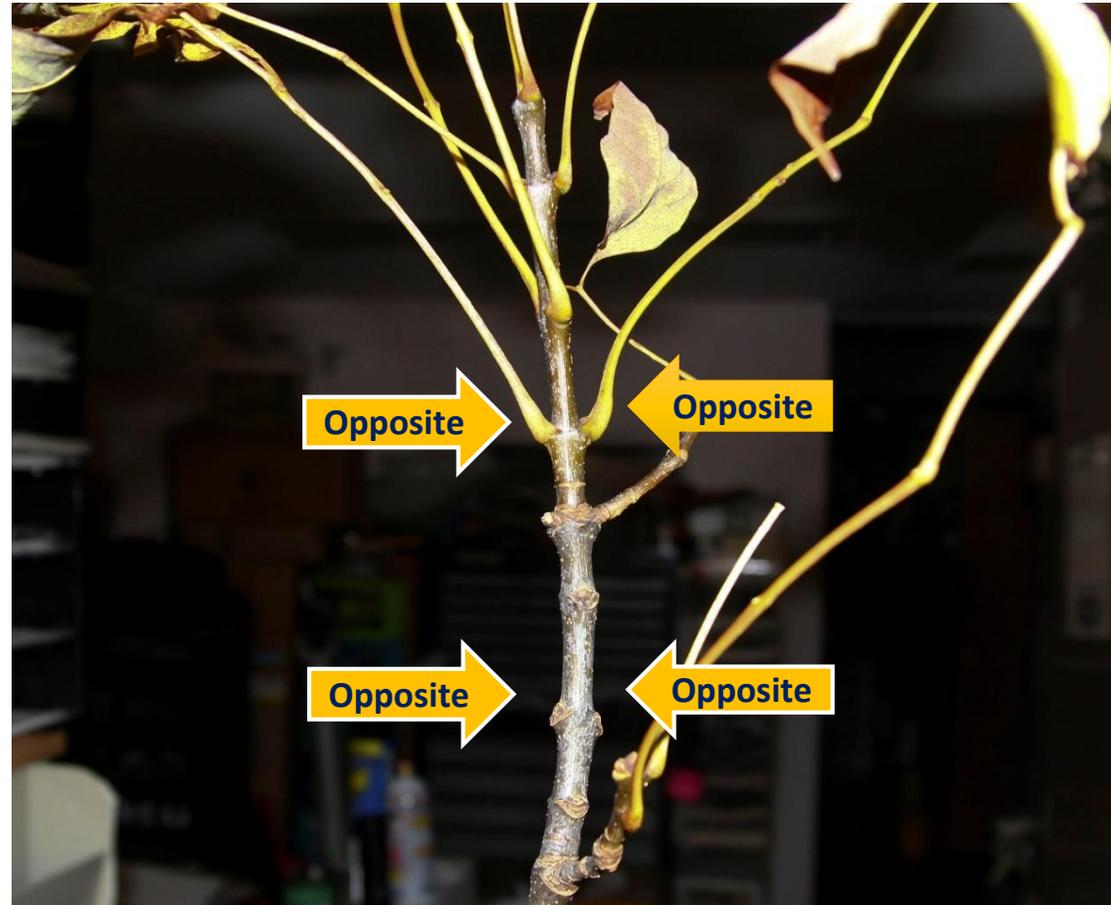
How to Identify an Ash Tree

Ash trees are fairly easy to identify because they are one of the few trees that have **opposite leaves** and **opposite branches**—meaning that the leaves occur on opposite sides of the stem, twigs on opposite sides of the branch and branches on opposite sides of the trunk.

This can be seen in the next several slides.

*Other trees with opposite leaves and branches are maple, dogwood and horse chestnut.

Opposite Branches on All Ash Trees

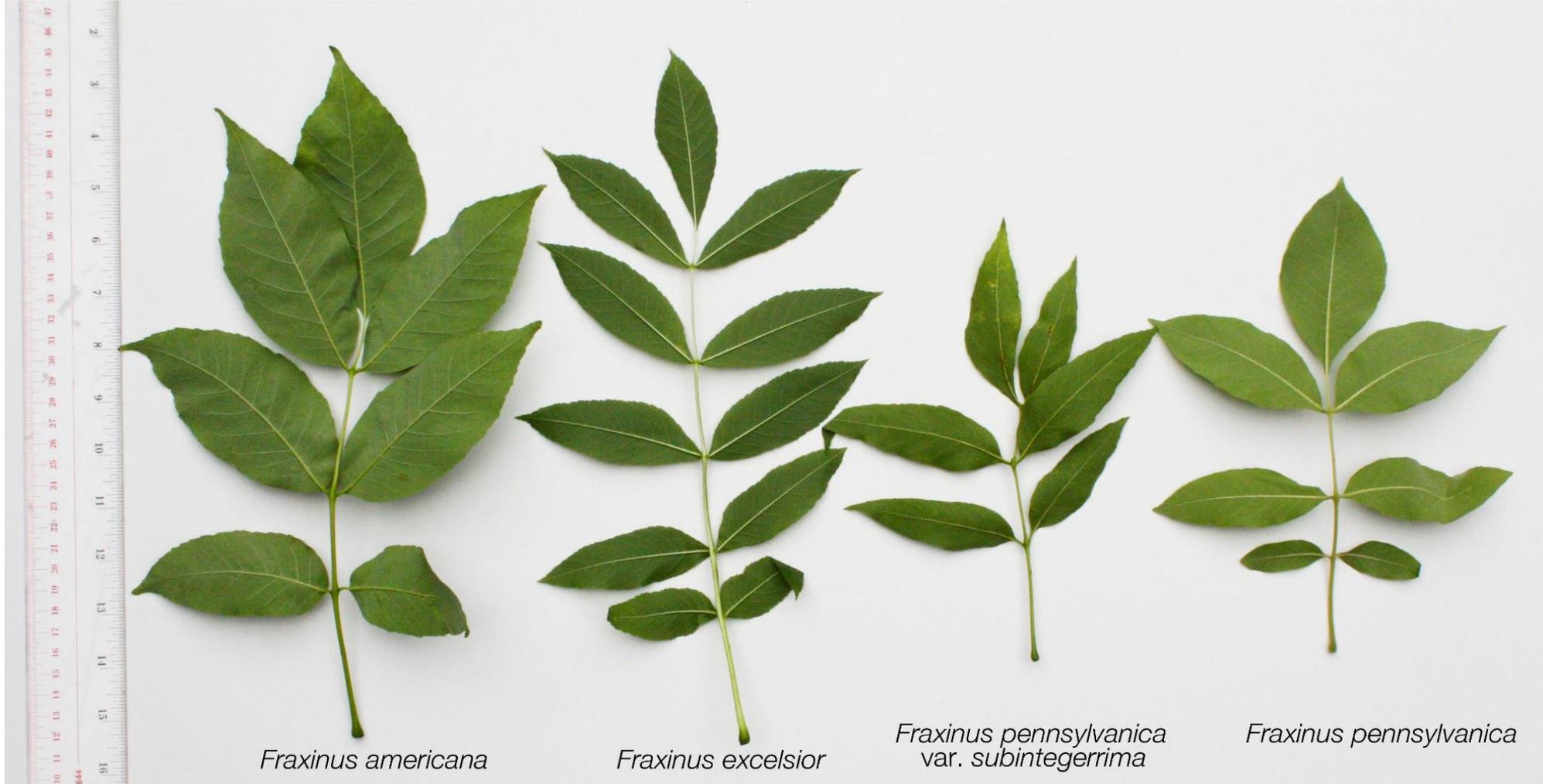


Compound Leaves

A leaf with more than one leaflet. All leaflets attached to a single leaf stem.



Opposite & Compound Leaves on all Types of Ash



Bud & Greenery on an Ash Shoot



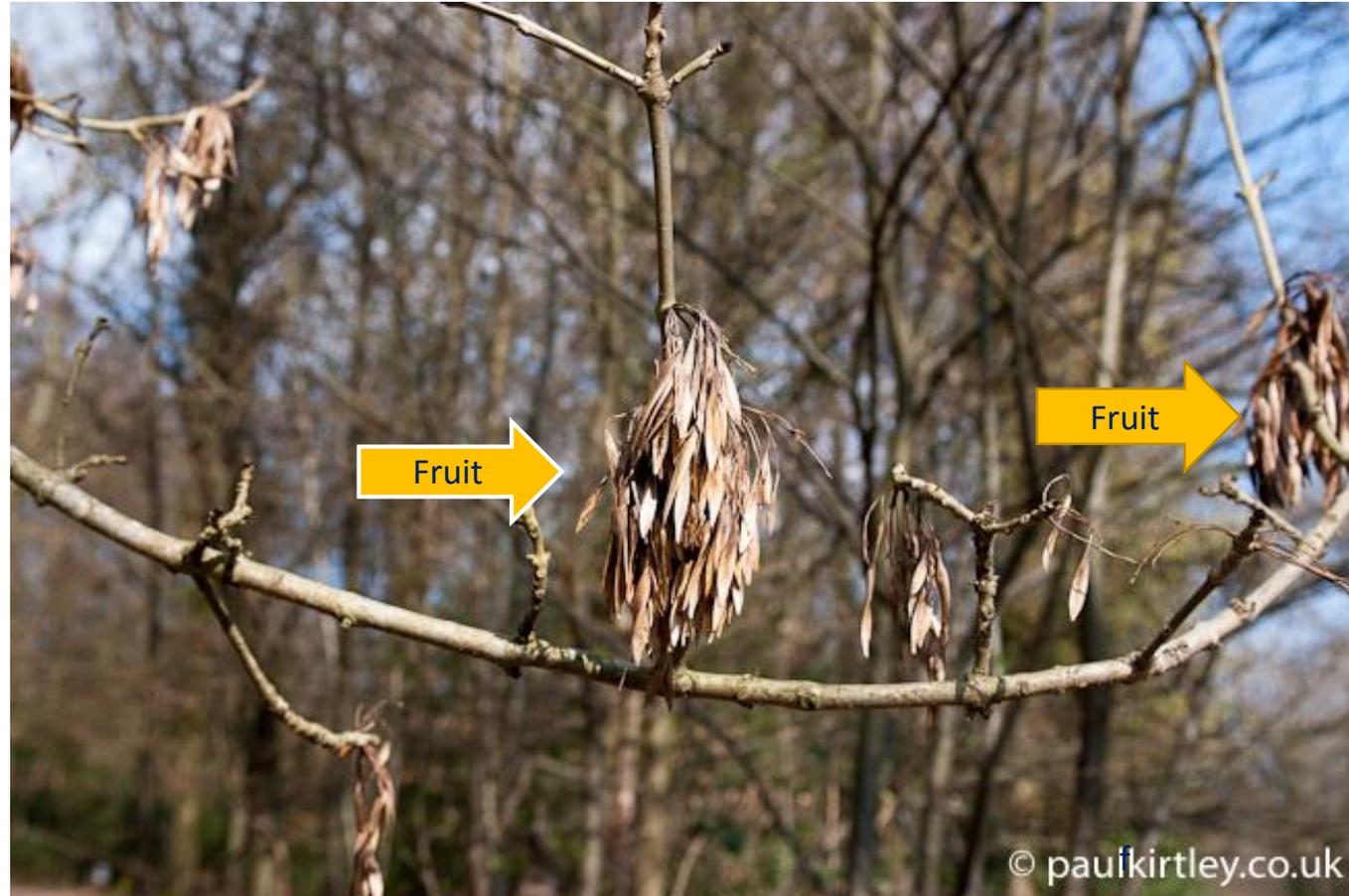
Upturned Shoots of Ash



Sooty Black Buds of Ash



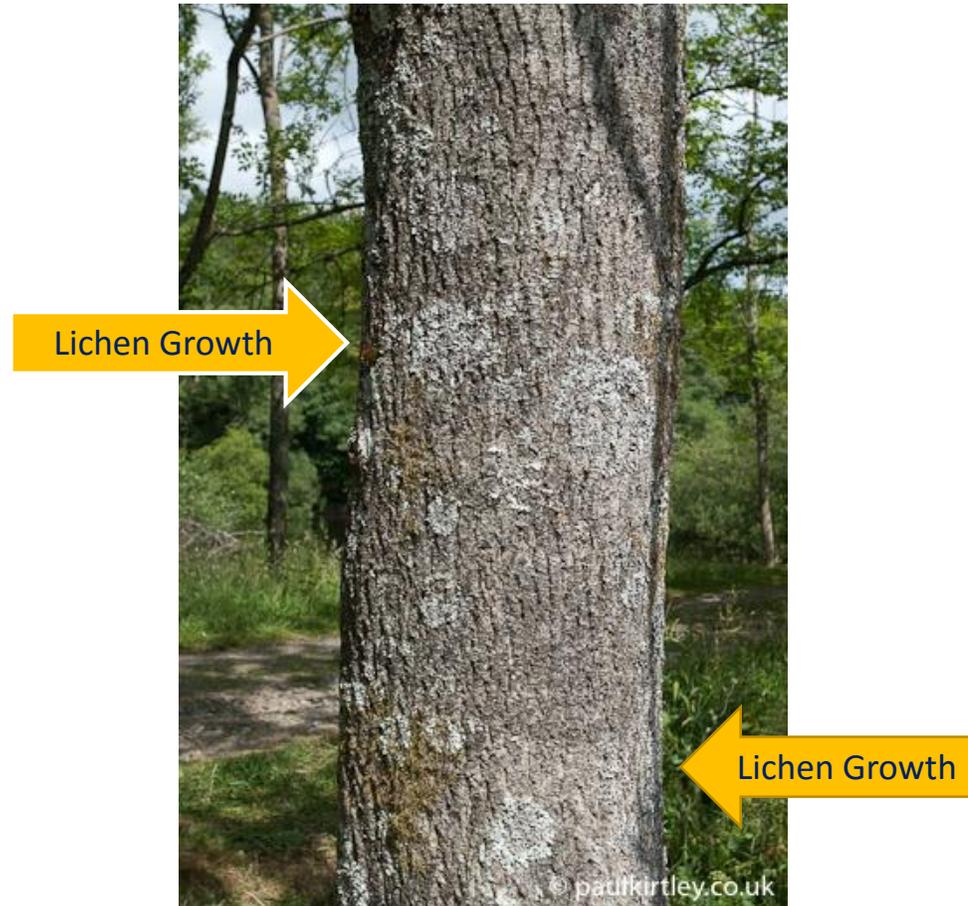
Winter Branch



Young Tree Bark



Slightly Fissured Ash—Light Colored Bark— Harmless Lichen Growth



Smooth Gray Ash Tree Bark



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Mature Fissure Bark



Ash Tree at Veterans Park



Tall Forest Ash Reaches for the Sky



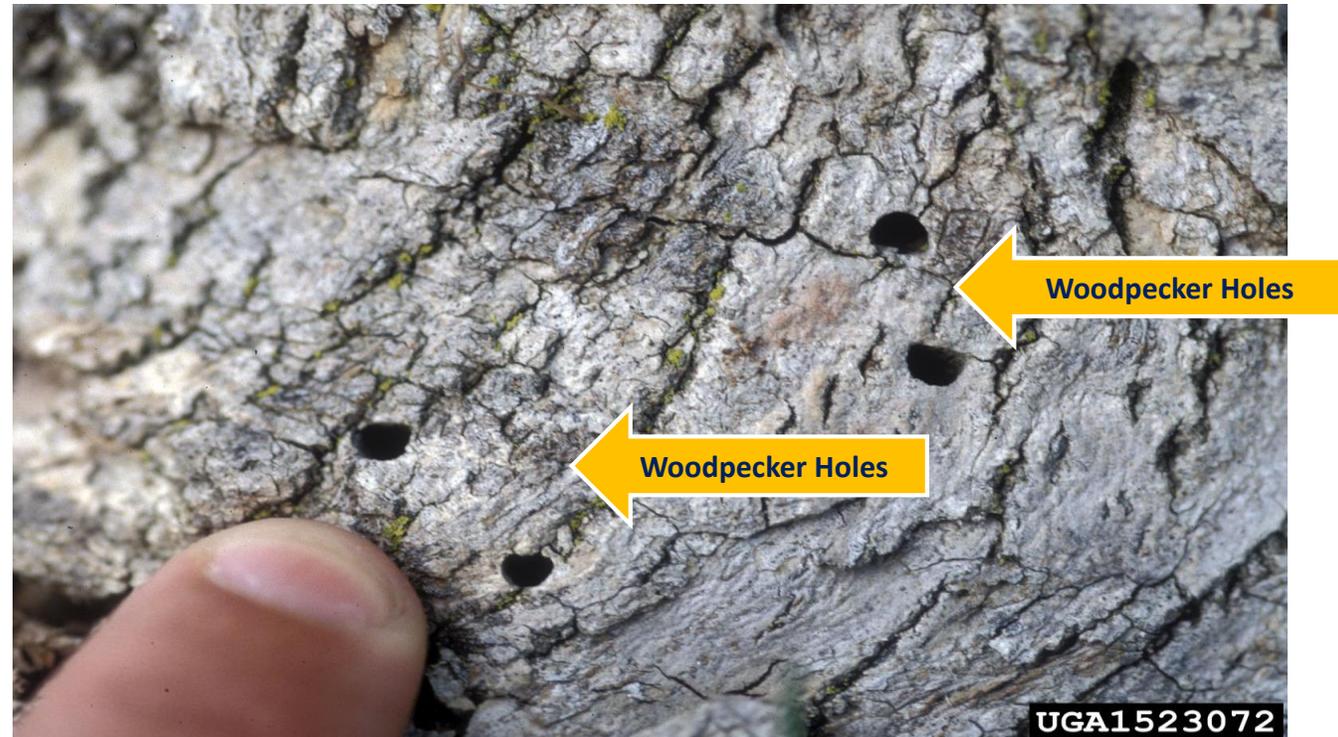
Crown Die Back from EAB

Dieback of the upper and outer crown begins after multiple years of EAB larval feeding. Trees start to show dead branches throughout the canopy, beginning at the top. Larval feeding disrupts nutrient and water flow to the upper canopy, resulting in leaf loss. Leaves at the top of the tree may be thin and discolored.



Woodpecker Feeding from EAB

Woodpeckers eat emerald ash borer larvae that are under the bark. This usually happens higher in the tree where the emerald ash borer prefers to attack first. If there are large numbers of larvae under the bark the woodpecker damage can make it look like strips of bark have been pulled off of the tree. This is called “flecking.”



Larval Galleries/Bark Splits from EAB

Vertical splits in the bark are caused due to callus tissue that develops around larval galleries. Larval galleries can often be seen beneath bark splits.



Purple Trap Used to Identify Presence of EAB in Some Counties



What are the Common Myths about EAB?

- **Myth 1—We can't do anything about EAB anyway; we might as well let it spread.**

EAB is a devastating pest; our choices now for ash trees near an outbreak are either treat or remove. Slowing the actual spread of EAB may mean economic viability for cities/townships that are affected. If nothing is done to slow the spread, EAB can kill all area ash trees in a very short time. Slowing the spread means a city or township can spend \$1M a year on ash tree removal for eight years, instead of spending \$8M in one year for all dead trees. Spreading the costs over many years is easier on any city or township budget and taxpayers. Another reason is to buy time to let the science catch up: detection methods are improving and more is being learned about EAB weaknesses. Additional research is needed, but it takes time. While it's unlikely there will be a silver bullet, scientists may find enough weaknesses in EAB that we may be able to save the ash tree species in the US.

***Costs are determined by the number of ash trees in a city/township.**

Myths Continued

- **Myth 2—EAB has no impact on human health, it just kills trees.**

EAB-killed trees dry out quickly and become hazard trees in less time than after a normal tree death. Hazard trees are trees that can be dangerous because of the possibility of them falling over or large branches breaking off, with a potential to cause personal injury to people and property. In addition, a recent study by the US Forest Service found that the decrease in tree numbers due to EAB in the Detroit, Michigan area (where EAB started) caused an increase in human mortality related to cardio-vascular and respiratory systems.

What the Homeowner Needs to do!

- Identify any Ash trees on your property.
- If you have an Ash tree, determine if it is healthy.
- Does the tree make a significant impact on your property either in terms of its impact on the appearance of your landscape and/or the shade it provides for certain areas of your property?
- Compare the cost of saving it to the cost of taking it down—(either way, you are going to have to spend a significant amount of money).
- Decide what you will do.
- Whatever you decide, be advised that a dying *ash tree is extremely brittle. It will pose a significant danger to your property and to people. These trees will have to be removed.*

Who can I contact?

If you have questions/concerns about any of the steps facing homeowners the following persons are available for consultation:

Jim Elliott; 610.353.1759

Marianne Price; 610.353.4971

Rick Ray; 610.328.6181

Bibliography

www.emeraldashborer.info

[**Paul Kirley.co.uk/2013/how-to-identify-an-ash-tree**](http://PaulKirley.co.uk/2013/how-to-identify-an-ash-tree)

PA DCNR – EAB

***The above sites and others were used to prepare this power point.**

Emerald Ash Borer Infestation in Pennsylvania

