

Emerald Ash Borer: Unwelcome in Longmeadow

The Longmeadow Tree Committee is aware of an unwelcome pest in Longmeadow: the Emerald Ash Borer (EAB). A floodplain forest ecologist working with The Nature Conservancy has spotted the borer in the Fannie Stebbins Wildlife Refuge. The EAB was probably introduced to this country from its native range in Asia through wood pallets or other solid wood packing products. The pest was first spotted in Michigan in 2002. Since that time it has spread through at least 30 states and 2 Canadian provinces, killing hundreds of millions of ash trees and causing billions of dollars in damage. The pest was first identified in Massachusetts in 2012, when it was spotted in Dalton near Pittsfield. Berkshire County has experienced the most tree loss in the Commonwealth so far.

What is the EAB?

Emerald Ash Borers are flying metallic green beetles which measure up to ½ inch in length. The adults emerge from infested trees in late May and June in our area. The adults feed on leaves for about a week before mating, but do little damage at that stage. The female EAB then lays eggs in cracks in the bark of green, black, white and blue ash trees (genus *Fraxinus*). The similar-named European Mountain Ash (genus *Sorbus*) is not related or susceptible to the EAB. However, white fringetree (*Chionanthus virginicus*) and cultivated olive (*Olea europea*) are also susceptible to the EAB. After hatching, the larvae chew through the ash tree bark where they feed on the vascular tissues just under the bark. This is where they do the most damage. The galleries they create eventually restrict the flow of nutrients between root and leaf, causing the death of the tree unless control measures are taken. The time from infestation to death depends on the initial health of the tree and the number of pests present, but may be as short as two years.

How do I know if my tree is infested?

Signs of damage include canopy dieback, D-shaped exit holes in the bark, and evidence of woodpeckers feeding on the larvae. Some infected trees will sprout “suckers” or shoots from the base of the trunk or from branches.

What can be done?

Management of the pest includes restricting the transportation of ash firewood, removal of heavily infested trees, systemic insecticide treatment of significant specimen trees and introduction of biologic controls, such as parasitoid wasps. Four species of parasitoid wasps have been released in Massachusetts by federal and state agencies. The wasps are harmless to humans and our native flora and fauna. They lay their eggs in the EAB eggs or larva. The maturing wasps kill the EAB eggs or larva, and when the wasps hatch, lay their eggs in other EAB eggs or larvae. Everyone involved in the effort hopes that with time, the wasps will be able to control the population of the EAB and allow the survival of our native ash trees. Selective chemical treatment of specimen trees in Longmeadow is being considered in order to buy time for our urban forest while biological controls gain a foothold.

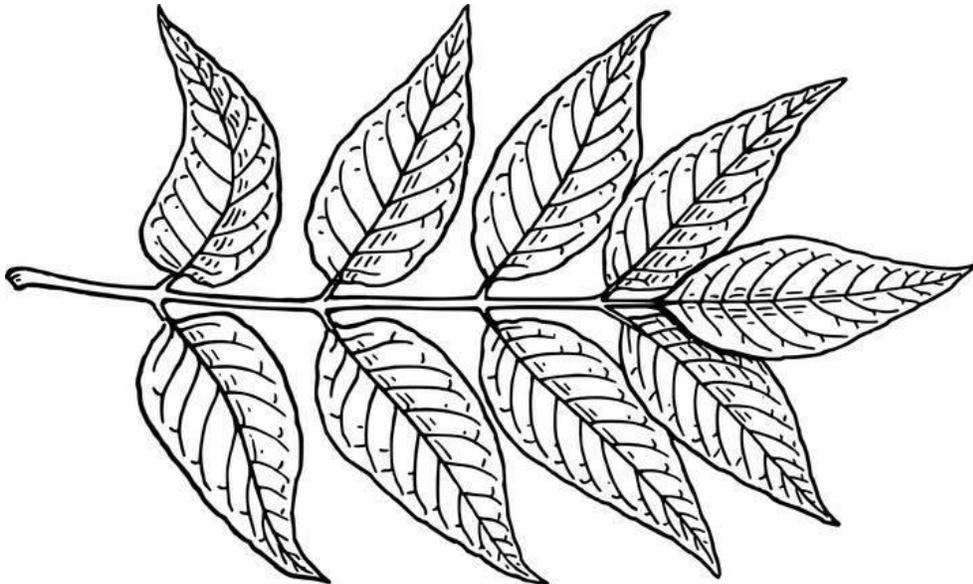
What is being done in Longmeadow and what can I do to help?

The Longmeadow Tree Committee is aware of over 140 ash trees on Longmeadow property and Rights-Of-Ways (treebelts). Many more are present in town parks and conservation land, and on private property. The committee has evaluated the cost of treating vs. removing ash trees and has advised the Tree Warden and town to begin treating trees in 2019. Citizen reporting of potentially infested trees would extend the reach of the committee. Ash trees are identified by the following features:

1. Ash trees have compound leaves as in the figure below. The leaf pictured is a single leaf composed of nine leaflets attached to a single stem. In the fall the leaflets stay attached to the stem when the stem separates from the branch. Ash leaves typically consist of five to nine leaflets per stem. The leaflet edges are smooth or finely toothed.
2. An ash tree leaf arises from the branch directly opposite another leaf. Maple trees and dogwood trees also demonstrate opposite branching. This is in contrast to most other trees native to Longmeadow, which demonstrate alternate branching. Alternate branching is characterized by staggered origins of the leaves along the branch. Oaks, for example, demonstrate alternate branching.
3. Ash tree cultivars are sometimes seedless. If seeds are present, they are shaped like small single feathers.

The following link is a useful guide to ash tree identification:

<http://www.emeraldashborer.info/documents/E-2892Ash1.pdf>



Many trees in Longmeadow are showing signs of stress because of previous years' drought. This problem is not limited to ash trees. If you think you have identified a potentially infested ash tree on Town property or the Town Right-of-Way, send the exact location to ashtree@longmeadow.org. You can also email questions about the EAB and the Longmeadow Tree Committee's efforts to control it to the same email address. Please include your name and return email address so that the committee may respond.