

# What's Eating My Ash Trees?

By Mark Ellison, Cheyenne Urban Forestry



**An adult Emerald Ash Borer**

You may have heard recent news about the emerald ash borer (EAB) being found in Boulder, Colorado and wondered how long until your ash trees could become threatened. EAB is native to Asia and since its discovery in Michigan in 2002, it has killed tens of millions of ash trees in more than 20 states and has cost communities billions of dollars to treat, remove and replace ash trees. EAB only affects ash trees, such as green ash, white ash, black ash and Manchurian ash. Mountain ash is not affected. In Cheyenne ash trees comprise about 10% of our total tree population. Cheyenne Urban Forestry recently completed a survey of select

ash trees around town and fortunately did not detect EAB. It is difficult to say if and when EAB will arrive in Cheyenne. Although several systemic insecticides are effective in protecting ash trees from EAB, the experts recommend only treating your trees when EAB is within 5 miles, therefore treatment is not recommended here until a positive identification is confirmed.

So how long do we have before EAB find its way to Cheyenne? This is a difficult question to answer and one you will likely here many opinions on. Since Boulder is the first western infestation of EAB, there is no other comparison we can make to another western community to determine a timetable for spread. In the Midwest where EAB has been established for over 15 years, spread has been rapid due primarily to the movement of infested wood and the abundance of host trees. In the Midwest ash trees are much more common and even comprise a portion of their native forests, making ash firewood readily available and host trees present almost everywhere. In the West, ash trees are found primarily in communities, however ash is native or has become naturalized to many river corridors and riparian areas, though ash are not a component of our native forests. As a result of these differences, EAB will likely spread slower and result in more isolated, satellite-type infestations.



**Adult Ash/Lilac Borers look very similar to a wasp**



Whitney Cranshaw, Colorado State University, burwood.org

**When adult Ash/Lilac Borers emerge from ash trees they shed their pupal skin, sometimes causing it to remain in the exit hole**

Recently, there have been several false identifications of EAB as a result of another borer which is native and appears to be on the rise in Cheyenne. Ash/lilac borer (ALB) is causing significant damage to ash trees and has prompted Cheyenne Urban Forestry to begin spraying many city-owned ash trees to prevent further infestation. To determine if your ash trees are infested by ALB, look for small holes in the lower portions of the stem and at branch attachments. Boring dust is commonly visible and bark is often missing or peeling off, revealing galleries under the bark. Woodpeckers are also seen on heavily infested trees, removing the bark and feeding on the larvae.

If you or an Arborist confirm an ALB infestation, consider insecticide spray treatments. Spray treatments should be done 7-10 days after the adult moths emerge (May-June) with a second spray treatment applied 4 weeks after the first. The most common treatment for borers are insecticides with the active ingredient permethrin. Although dozens of permethrin-containing insecticides are marketed at retail outlets, very few have labels that allow use against ALB. However, a number of ALB insecticides are sold to licensed commercial applicators, such as Arborists.

In addition to ALB, oystershell scale (OSS), another insect which affects ash, has been building-up over the past few years and is taking its toll on our ash tree population. Ash, as well as aspen, cottonwood and willow trees can be infested. To identify OSS, look for small 1/8-inch long, light to dark brown, elongated scales on the stem and branches of your trees. The scales often blend in well with the underlying bark, making identification difficult. OSS feed on the plant by sucking out plant sap and can weaken and even kill the area around the feeding site. An indication of a heavy infestation is when several branches within the tree are killed or have very few leaves.

Several treatment options are available for OSS, including horticultural oils, crawler insecticides, insect growth regulators and systemic insecticides. Crawler insecticides and systemics are generally considered the most effective control especially for heavy infestations. Many crawler insecticides are available and effective for control. Check the chemical label to be sure scale is listed for control. Timing is the key when spraying a crawler insecticide. Spraying should coincide with the crawler stage to get adequate control. Systemics conversely, can



**The bark of this black ash was stripped off by wood peckers, revealing the galleries made by the larval stage of the Ash/Lilac Borer**

be applied anytime during the growing season to get control, however these insecticides (dinotefuran) are only available to commercial applicators, such as an Arborist.



**Ash/Lilac Borer often prefers attacking young trees, such as this white ash**

By now, you might be asking yourself “why are ash trees being targeted by so many pests?” The answer is because ash became the tree of choice after the Dutch elm disease epidemic and it was over-planted in most communities. Ash is also very hardy and adaptable to a wide range of environmental conditions, so in many ways its success will eventually be its downfall. What we should have learned from Dutch elm disease- overplanting of any one species can spell disaster, was repeated unfortunately with ash and it appears EAB may be even more destructive than Dutch elm disease.

So as a homeowner with ash trees what should you do? Our advice is to inspect your trees for ALB and OSS and treat with insecticides if you find them. Consider hiring an Arborist if you decide to treat your infested trees. An Arborist is licensed to use the most effective insecticides, will be able to accurately time the insecticide applications and has the proper equipment and training to do the job effectively and safely. Be sure to hire an Arborist that is licensed to work in Cheyenne (see cheyennetrees.com). Also don't forget tree

care 101- trees that are stressed are more susceptible to attack by insects so take good

care of your trees, by watering, mulching, aerating, pruning and protecting your trees from injury (see cheyennetrees.com). When considering trees to plant in your landscape, avoid ash trees for now. Plant a variety of species and be sure no tree comprises more than 10% of your landscape- diversity is good! Finally, “Don't Move Firewood”- the movement of firewood has been the primary vehicle of EAB spread- burn your firewood where you buy it! By protecting our ash trees, properly caring for their health, continuing to diversify our tree population and being vigilant about firewood movement, we will further postpone the arrival of EAB, be better prepared when it does arrive and have much less to lose. For questions about your ash trees, please call Cheyenne Urban Forestry at 637-6428.



**Oystershell scale on the branches of this green ash are becoming detrimental to the tree's health**