

DNR RESPONSE TO COVID-19: For details on adjustments to DNR services, [visit this webpage](#). For information on the state's response, visit the [Minnesota COVID response webpage](#).



MN DNR logo



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Emerald ash borer (EAB)

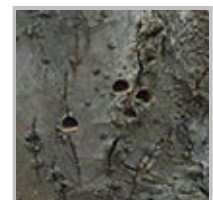


Photos by: Howard Russell, Michigan State University, Bugwood.org

Emerald ash borer (EAB) is an invasive forest insect from Asia responsible for the deaths of millions of ash trees throughout the eastern half of the U. S. and southeastern Canada. EAB infests and kills weak and healthy ash trees alike, and all species of ash native to North America are vulnerable to EAB attack. With nearly 1 billion ash trees in the state, the spread of EAB will have a serious impact in Minnesota. And although frigid winter temperatures in northern Minnesota may help to slow the spread and survival of EAB, cold won't stop it completely. [Learn how insect strategies](#) help them survive the winters in Minnesota.

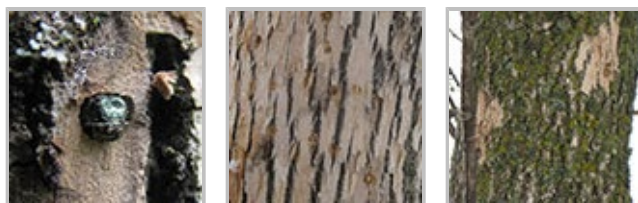
Life cycle

EAB is a beetle whose larvae feed on ash trees and at least one [other species](#) related to ash. Most of the [EAB life cycle](#) takes place below the bark. Woodpeckers readily feed on EAB larvae and often reveal infested trees during the winter months. These trees become covered in light-colored



"flecking" as woodpeckers remove the outer bark.

As tunnels from feeding larvae accumulate, trees begin to show signs and symptoms of EAB infestation. Once trees have started to show symptoms, trees generally die within one to three years.

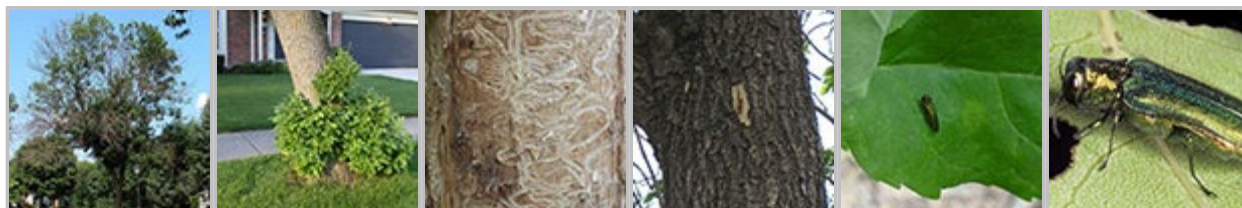


Emerging adult beetles chew characteristic 1/8-inch, D-shaped exit holes that can be useful in confirming infested ash trees, although the holes can be difficult to find because of their small size and because they are frequently high in the tree.



Photos by: Howard Russell, Michigan state University, Bugwood.org

Signs and symptoms of EAB infestation



Reporting EAB

To help you spot infestations in your neighborhood, learn more about [EAB identification and biology](#) . If you think you have seen evidence of an EAB infestation, please report it to [Arrest the Pest](#) , or call [888-545-6684](tel:888-545-6684).

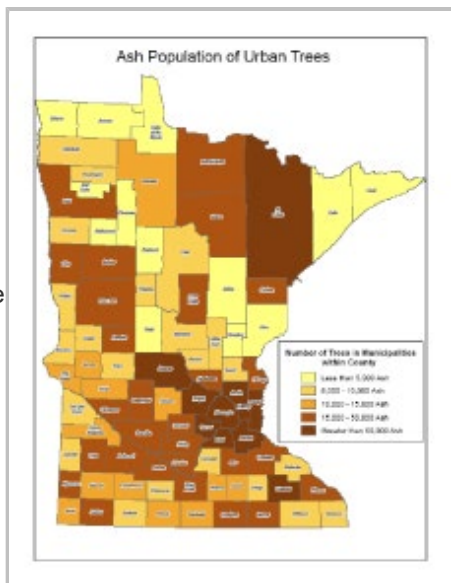
Where is EAB?

EAB was first discovered in North America in Michigan in 2002, and has now spread to many other U.S. states and some Canadian provinces ([EAB in North America](#)). In Minnesota, EAB was discovered in 2009 in St. Paul, and a year later in Minneapolis and southeastern Minnesota. EAB continues to spread; it was discovered in greater Duluth in 2016. Find out about infested counties, quarantined areas, and just how close EAB is to where you live, work, or play by viewing the interactive [Minnesota EAB Map](#) . If you suspect you have seen evidence of an EAB infestation, please report it to [Arrest the Pest](#) , or call [888-545-6684](tel:888-545-6684).

Impact

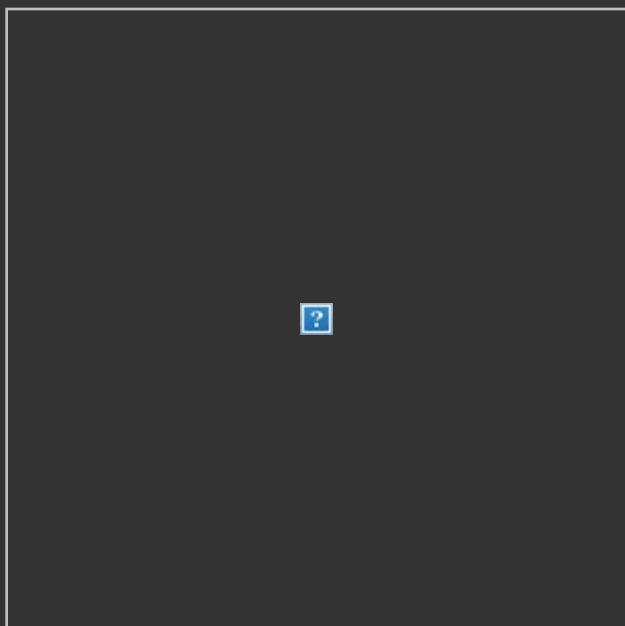
Minnesota forests are home to an estimated 1 billion ash trees. Many of these trees are in nearly pure stands of black ash growing in wet areas. Once EAB has killed these trees, there is a concern that the wet forest habitat may change over to grass, cattails, and shrubs, threatening the plants and animals that rely on black ash and forest habitats.

Minnesota cities also have an abundance of ash, making up 60 percent of the trees in some communities. EAB will continue to strain city budgets as more and more communities are challenged with removing large numbers of trees killed by EAB.



Click to enlarge

Minnesota map showing ash population of urban trees



Questions?

Call 651-296-6157 or 888-MINNDNR (646-6367)

Email us: info.dnr@state.mn.us □

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