

West Central WI Forest Health Report

February 2012

Topics covered this month:

Insects

[Emerald ash borer risk map](#)

[Hemlock woolly adelgid](#)

[Winter cutworm](#)

Diseases

[Cellu-Treat label](#)

[Thousand cankers disease](#)

[Diplodia in nurseries](#)

In the news

[Lyme disease](#)

[Ash removal in WI, MN, IL](#)

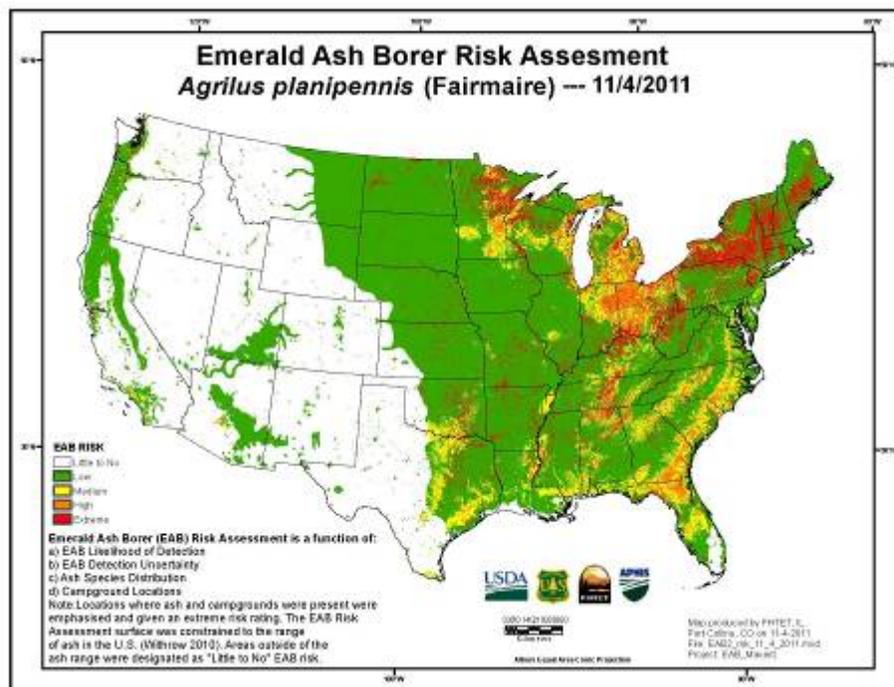
[Fire and bark beetles](#)

Media

[New forest health website](#)

Insects

Emerald Ash Borer Risk Map



DATCP's emerald ash borer trapping plan for 2012 will be based on a new risk map produced by the Forest Service's Forest Health Technology Enterprise Team. The new risk map is based on variables like ash species distribution, campground locations and the likelihood of detecting EAB. DATCP's and DNR forest health's trapping plan for 2012 will be available in the next WCR forest health report.

Figure 1. The new Forest Service EAB Risk Map that will be used to determine EAB trapping priorities for 2012. Risk goes from green (low) to red (extreme).

Hemlock Woolly Adelgid Found in Ohio

Hemlock Woolly Adelgid has been discovered for the first time in a natural hemlock stand in Ohio at Shade River State Forest. The bugs have been previously detected on infested nursery stock in Ohio. So far, only 8 of the 500 trees inspected at the forest have HWA infestations. HWA was discovered in the Pacific Northwest on western hemlock in the 1920's but was not discovered in the eastern U.S. until a find in Virginia in 1950. HWA is attacking eastern and Carolina hemlocks in at least 18 states on the east coast presently. The aphid-like insects feeding causes premature needle drop which has caused extensive decline and mortality in several eastern states. Treatments typically include either cutting and burning infested trees or using insecticides. Three species of beetles are also being released as biological control agents to help reduce populations of the bugs in heavily infested areas.



Photo 1. White fluffy wool covering adult hemlock woolly adelgids and their eggs. Photo by Linda Williams

HWA has not been found in WI to date but forest health staff will continue its annual detection surveys for HWA in early spring of 2012.

Winter Cutworm (by Todd Lanigan)



Photos 2, 3, 4. Winter cutworm caterpillars and moth.

I received a report of hundreds of caterpillars on top of the snow and in tire tracks on New Year's Day near the Pierce-St. Croix County line along (Note: we have had additional reports across west central WI more recently). The caterpillars are the Winter Cutworm (*Noctua pronuba*) which is a European species that was first found in Nova Scotia in 1979 and has spread into the United States. Winter cutworm has been in Wisconsin since 1997, and is an agricultural and garden pest, and at times, a household pest. They overwinter as a caterpillar and they produce an anti-freeze that allows them to be active during the winter when the temperature is above freezing. The adult moth is known as the Large Yellow Underwing and is attracted to lights at night during the late summer, early fall months. For more information see:

<http://hayandforage.com/ehayarchive/winter-cutworm-poses-threat/>
<http://www.ipm.msu.edu/cat08field/pdf/4-03noctua.pdf>

Diseases

New Cellu-Treat Label for Use with Antifreeze

Correction: In the last pest report we stated that “It is now legal to use antifreeze with Cellu-Treat for winter stump application if you get a copy of the new product label”. To clarify, if you buy new Cellu-Treat with the new label then you can use antifreeze. However, if you have Cellu-Treat with the old label you can not use antifreeze with it unless Nisus® has a supplemental label approved. Hopefully Nisus® will resolve this issue in the near future.

Thousand Cankers Disease on Butternut

The Ohio State University diagnostic lab recently released the news that they had confirmed the first case of thousand cankers disease on butternut. The sample came from the state of Oregon.

Diplodia pinea Testing in State Nurseries (by Kristin Peterson)

Over the past six years, the state nurseries have implemented an aggressive management plan to monitor and control *Diplodia* shoot blight and canker, caused by the fungus, *Diplodia pinea*. Some evidence suggests the presence of this fungus, coupled with increased seedling stress, could lead to seedling mortality. Recent research revealed that the fungus could persist in or on the seedlings without showing symptoms and become active once a tree is stressed (primarily due to moisture deficit). To limit seedling exposure to the fungus and subsequent infection, nursery and pathology staff devised a series of management actions: removal of all mature red pine found in and around the nurseries, increased applications of fungicides, and annual testing of nursery stock. These measures have helped limit the exposure and subsequent infection of red pine seedlings.

Table 1. Results of *Diplodia* testing on asymptomatic 2-0 and 3-0 red pine seedlings from Wisconsin state nurseries.

Nursery	Total # seedlings tested 2011	Total positive for <i>Diplodia</i> 2011	Percent positive for <i>Diplodia</i> 2011	Percent positive for <i>Diplodia</i> 2010
Hayward	209	19	9.09%	3.03%
Griffith	160	11	6.86%	3.85%
Wilson	219	0	0%	0%

Since 2006, nursery and forest health staff have tested asymptomatic red pine seedlings for *Diplodia* infection. Details of the test can be found in the 2007 Forest Health Annual Report. In 2011, the forest health lab processed 588 asymptomatic healthy 2-0 and 3-0 red pine seedlings to detect the presence of the pathogen. Samples were collected from all three state nurseries.

In 2011, all three state nurseries had a *Diplodia* infection rate below the 10 percent tolerance level that has been used for management purposes. The overall asymptomatic infection rate has been below 10% at all three state nurseries for the last four years. Testing for *Diplodia* will continue at all three nurseries in 2012.

In the News

Lyme Disease Risk

A new Lyme disease risk map was recently released by the Yale School of Public Health. Data were collected by dragging sheets of fabric through the woods to collect ticks. Approximately 1 in 5 ticks collected were infected. Read more at: <http://minnesota.publicradio.org/display/web/2012/02/03/lyme-disease/>

The incidence of a number of other tick transmitted diseases such as ehrlichiosis are on the rise in WI as well. Keep this in mind as you work in areas with ticks this year and take the necessary precautions. More info at: <http://www.dhs.wisconsin.gov/communicable/TickBornE/LymeDisease/index.htm>
<http://www.dhs.wisconsin.gov/communicable/resource/s/pdffiles/Tickbornediseases080111.pdf>

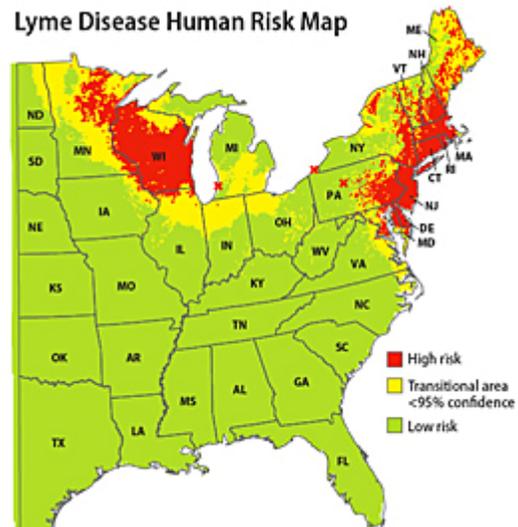


Figure 2. Lyme disease human risk map. (AP Graphic/Yale School of Public Health, Maria Diuk-Wasser)

Cities in WI, MN and IL Remove Ash Trees After New EAB Finds in 2011

After discovering emerald ash borer in several new locations in Minnesota and Wisconsin in 2011, cities are stepping up their efforts to reduce the impact of the infestations. Eau Claire recently cut 21 ash trees and marked dozens more for removal to try and reduce the number of ash trees in the city by 10% (<http://www.wqow.com/story/16620281/efforts-to-reduce-the-impact-of-emerald-ash-borer-continue-in-the-winter>). Finds in Minnesota in 2011 have prompted the city of Winona to ask for \$140,000 in funding to either chemically treat or cut and replace the approximately 8,000 ash trees in the city (http://www.winonadailynews.com/news/local/govt-and-politics/article_af7061a0-4e20-11e1-a10f-0019bb2963f4.html). St. Paul plans to remove over 500 ash trees before spring and another 500-600 in fall of 2012 replacing them with elm, maple, oak, linden, hackberry and river birch. St. Paul has 30,000 ash trees along city streets and perhaps as many on private property to protect or remove (http://www.twincities.com/ci_19872014). Arlington Heights, a Chicago suburb, is debating borrowing \$11.5 million to deal with their 13,000 ash trees. The city already has numerous infected trees and predicts the peak of the infestation to occur in 2015. (<http://www.dailyherald.com/article/20120214/news/702149940/>).



Photo 5. A tree infested with EAB in Great River Bluffs State Park near Winona, MN. Photo by Andrew Link.

Bark Beetles Influence the Risk of Crown Fires?

Forest service researchers recently published an article about the effects of mountain pine beetle infestations in lodgepole pine on the risk of crown fires in the infested area. Red, dead needles ignited about 3 times faster than green, healthy needles. Ninety-two percent of the difference in the amount of time it takes for needles to ignite (green vs. red) was explained by changes in foliar moisture content, fiber content, and crude fat content. This suggests that if a fire starts in a stand of trees with dead or dying needles resulting from bark beetle attack the risk of a crown fire increases.

Media New Forest Health Website

Check out the new Forest Health website and let us know what you think (<http://dnr.wi.gov/topic/ForestHealth/>).

While you're there read the 2011 forest health annual report.
<http://dnr.wi.gov/topic/ForestHealth/documents/AnnualReport2011.pdf>



For general forest health and municipal level urban forest health issues contact:



<http://dnr.wi.gov/topic/ForestHealth/staff.html>

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Statewide reporting systems:

Report EAB:

by phone 1-800-462-2803

by email DATCPEmeraldAshBorer@wisconsin.gov

visit the website <http://emeraldashborer.wi.gov/>

Report Gypsy Moth:

by phone at 1-800-642-6684

by email dnrfgypsymoth@wisconsin.gov

visit the website <http://gypsymoth.wi.gov/>

For additional information visit the Forest Health web site: <http://dnr.wi.gov/topic/ForestHealth/>

Note: This report covers forest health issues occurring in the West Central Region of Wisconsin. The purpose is to provide up-to-date information on forest health issues to foresters, forest landowners, and anyone else interested. We welcome your comments/suggestions on this newsletter as well as reports on forest health problems in your area. If you would like to subscribe to this newsletter, please contact Mike Hillstrom at Michael.hillstrom@wisconsin.gov. Previous issues of this update and regional forest health updates from NER, NOR and SOR, are available from the WI DNR Forestry website at <http://dnr.wi.gov/topic/ForestHealth/Publications.html>. Articles written by Mike Hillstrom unless otherwise noted.

Pesticide use: Pesticide recommendations contained in this newsletter are provided only as a guide. You, the applicator, are responsible for using pesticides according to the manufacturer's current label directions. Read and follow label directions and be aware of any state or local laws regarding pesticide use.