

Southern Region Forest Health Update

Wisconsin DNR, Forest Health Protection Unit

February 15, 2012 Vol. 9 No. 1

Topics in this update

Gypsy Moth
Emerald Ash Borer
Hemlock Woolly Adelgid
Bur Oak Blight
DNR State Nursery Diplodia Testing Study
Thousand Cankers Disease
Miscellaneous

Mark Guthmiller (Southern Region Forest Health Specialist)
Articles in this newsletter were written by Mark unless otherwise noted

Gypsy Moth– Bill McNee

Predictions for 2012

Mild winter temperatures forecast an abundance of insects in 2012, and a warm spring and summer is likely to start a rebound of the gypsy moth populations in Wisconsin. Populations are currently low across the state but it is important to keep an eye out for and report nuisance levels of gypsy moth. If there are groups interested in private aerial spraying this spring, an applicator list and guide to aerial spraying are available online at <http://dnr.wi.gov/topic/ForestHealth/GypsyMothPesticides.html> and <http://gypsymoth.wi.gov/AerialApplicatorsList2010.pdf>

Still Time for Manual Controls

Between now and April, scrape off egg masses within reach and drown them in soapy water to help reduce this year's gypsy moth population. Once temperatures are above 40° and there is no immediate danger of freezing, one of several egg mass oil products can be applied to suffocate the eggs as an alternative to scraping. Visit <http://fyi.uwex.edu/gypsymothinwisconsin/pest-management-2/management-guide-for-homeowners/> for more information.



Scrape gypsy moth egg masses into soapy water.



Oil egg masses when temps above 40° and by the first week in April

Artwork by Trouvelot

Many readers will remember that the man who brought the gypsy moth to Massachusetts, Etienne Trouvelot, was also a talented astronomer. The New York public library system has released some of his astronomy drawings from the late 1800s, available at: <http://flavorwire.com/253592/beautiful-victorian-era-illustrations-of-space>.

Emerald Ash Borer– Bill McNea

EAB Risk Management Workshop For Local And Government Officials

The City of Oak Creek (Milwaukee County) will be hosting an EAB Risk Management workshop for local government officials on Wednesday, February 22. If you have questions or would like to register, contact Oak Creek's City Forester, Rebecca Lane, at: rlane@oakcreekwi.org. DNR's Forest Health or Urban Forestry staff can also email the workshop invitation to you.

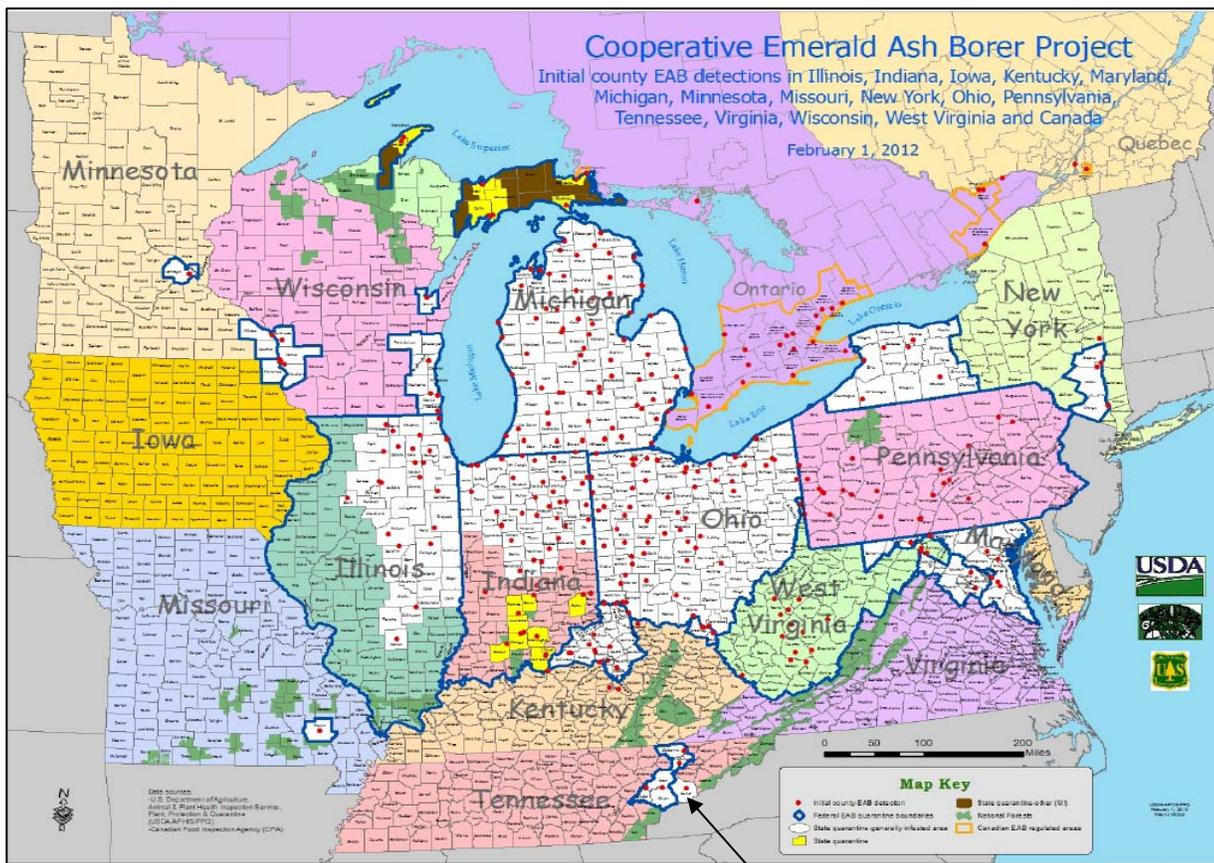
An Economic Analysis of Emerald Ash Borer Management Options

A new journal article, 'An Economic Analysis of Emerald Ash Borer Management Options,' found that the retention of ash trees using insecticide treatments typically retained greater urban forest value than other management strategies. Read more at:

http://www.sciencedaily.com/releases/2012/02/120209172924.htm?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+sciencedaily+%28ScienceDaily%3A+Latest+Science+News%29.

New EAB County Detection (Tennessee)

So far in 2012, EAB has only been detected in one county nationwide. EAB was detected in Sevier County, Tennessee (east of Knoxville).



Hemlock Wooly Adelgid (HWA)- Bill McNee

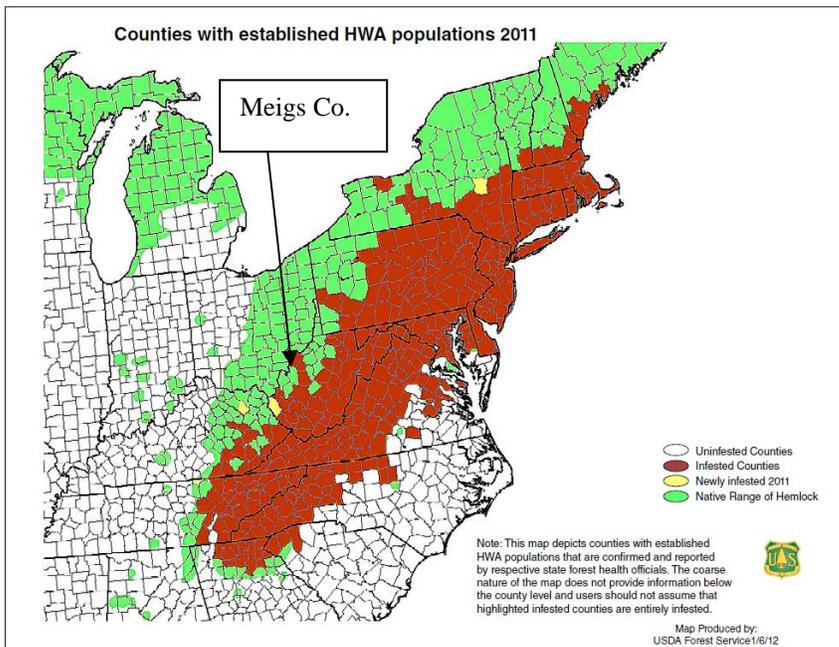
In 2008 and 2009 Ohio reported detection of HWA in nursery stock and a residential development. These sites were later declared eradicated. HWA was recently detected in Meigs County, Ohio in December 2011. It is likely that the insect spread naturally from West Virginia, as the pest typically spreads 15-20 miles per year. Eastern North America's first find of this exotic species was in Virginia in 1951, and the pest is now found from Georgia to Maine. The Ohio infestation appears to be in its early stages, and the current plan is to cut down and burn trees known to be infested. Read more at:

<http://www.cantonrep.com/newsnow/x1087084098/Ohio-to-cut-burn-trees-with-hemlock-killing-bug>.

Hemlock wooly adelgid has not been found in Wisconsin to date, although the insect has been found at several locations in Lower Michigan. If you see white wool at the base of hemlock needles, contact a DNR Forest Health specialist.



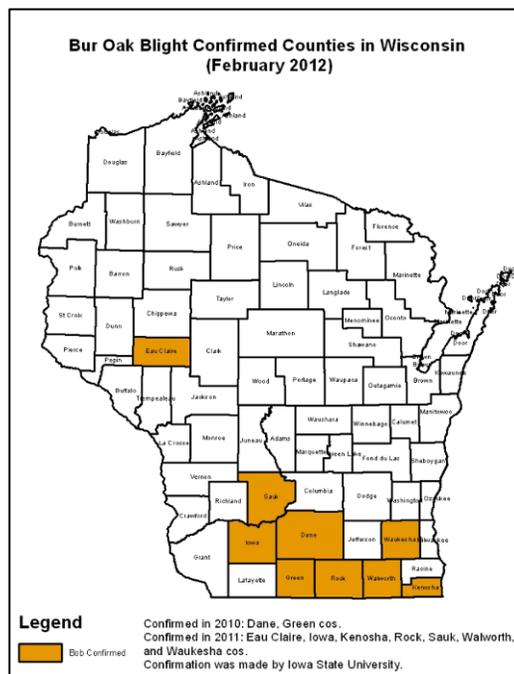
Hemlock wooly adelgid on hemlock.
Photo by Linda Williams.



2011 HWA distribution map with arrow to Meigs Co, Ohio

Bur Oak Blight- Kyoko Scanlon

Attached is an updated bur oak blight (BOB) county distribution map in Wisconsin. Eau Claire County is now added. This is so far the farthest north find in Wisconsin. However, the fungus has been confirmed in counties in northern Minnesota near Canada as well. If you are interested, check out the current confirmed distribution map and other information about BOB at: <http://www.public.iastate.edu/~tcharrin/BOB.html>. This pathogen is considered likely native based on recent genetic analysis. We expect to find more positive counties in 2012 as we collect more samples in summer.



DNR State Nursery Diplodia Testing Study- 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. Previous 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 number seedlings tested 2011	Total positive for Diplodia 2011	Percent positive for Diplodia 2011	Percent positive for Diplodia 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 (Table 1).

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 be conducted at all three nurseries in 2012.

The Diplodia fungus can function as a collar rot, shoot blight, or canker pathogen. For more information on Diplodia shoot blight and canker see: <http://hort.uwex.edu/articles/diplodia-shoot-blight-and-canker>



Diplodia collar rot



Diplodia shoot blight



Diplodia canker

Thousand Cankers Disease (TCD)

National Walnut Council Web Site

The National Walnut Council has a nice web site with information and lots of links to various topics on TCD.
<http://www.walnutcouncil.org/resources/growing-hardwoods/thousand-cankers.html>

University of Tennessee TCD Presentation to Iowa State

This is a bit outdated but I just came across this presentation. I thought plant pathologist, Mark Windham, presented some great information on survey, detection, and identification for those of us involved with such efforts. Mark also discusses a lot of the challenges of dealing with this insect/disease complex. It is about an hour long so pop some popcorn or grab some walnuts to crack and shell and enjoy the show.
<http://vimeo.com/20661263>

Boogie Down TCD Identification Video

I don't believe this is the sound a walnut tree makes (see "Music of Tree" below in the miscellaneous section) but it is a lively way to present how to identify TCD. Put on your dancing shoes and click below and make sure to turn the sound up. You will have your whole office dancing!
<http://www.youtube.com/watch?v=WDFqJE3BgEg&feature=youtu.be>

Miscellaneous

Forest Health Website Changes

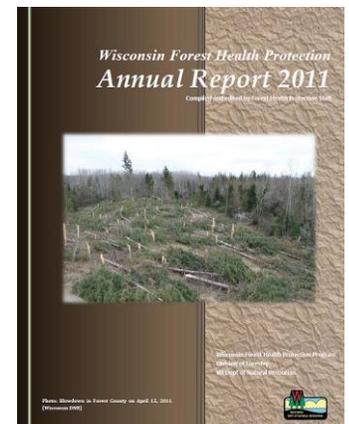
We are in the process of making some structural changes to the DNR forest health website. You may be noticing changes for a while as we finalize the new format. Please check it out and send comments on what you think. If you are having a hard time finding a frequently used web page let us know. Here is the link:
<http://www.dnr.wi.gov/topic/ForestHealth/>

Link to the forest health staff state map

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

2011 DNR Forest Health Program Annual Report

The DNR Forest Health Program's 2011 Annual Report is now available online. Read or download it at:
<http://www.dnr.wi.gov/topic/ForestHealth/documents/AnnualReport2011.pdf>



Updated Plant Hardiness Zone Maps

For the first time since 1990, the US Dept. of Agriculture has revised its plant hardiness zone maps showing which plants are likely to survive winter temperatures in a given area. The new map shows what many have long noticed - the winter lows are not as cold as they used to be. More detailed information is available at:
<http://planthardiness.ars.usda.gov/PHZMWeb/>.



DNR State Nursery Tree Order Forms Available

Woodland owners with spring on their minds may want to check out the state nursery web site and 2012 tree order form.

<http://dnr.wi.gov/forestry/nursery/order/>

Why Zebras Have Stripes

Ever wonder why zebras have stripes? New research suggests that it is primarily to avoid biting insects, and has less to do with confusing predators than previously thought. Read more at:

<http://www.economist.com/node/21547216>.

Lyme Disease Study

A new multi-year study conducted by Yale University has developed a new risk map for Lyme Disease.

Unfortunately, it found that most of Wisconsin is at high risk for the disease. Read more at:

<http://minnesota.publicradio.org/display/web/2012/02/03/lyme-disease/>.

Minnesota Forest Pest First Detector Program and Manual

Some folks may find the First Detector program manual of interest as a reference source. You can view it here:

http://issuu.com/mnstsc/docs/forest_pest_manual_feb_2011_opt_1

Music of Trees

I think this is really cool ...until the record is scratched by woodborers. If you are very quiet and turn down the noise you may hear Columbia County forester, Jim Bennett, humming to the music in the woods!

<http://www.americanforests.org/blog/the-music-of-trees/>



Think Spring! It is just around the corner!

SOR Forest Health Assistance
Wisconsin DNR, Forest Health Protection Unit
September 2011 to September 2012

Contacts for DNR staff, municipal foresters, and forestry cooperators

For general forest health and municipal level urban forest health issues

Mark Guthmiller (SOR region: SCR & SER combined) 608-275-3223

For gypsy moth

Mark Guthmiller (SCR Team area) 608-275-3223

Bill McNee (SER Team area) 920-662-5430

Andrea Diss-Torrance (Statewide issues) 608-264-9247

For emerald ash borer

Mark Guthmiller (SCR Team area) 608-275-3223

Bill McNee (SER Team area) 920-662-5430

For beech bark disease/beech scale

Mark Guthmiller (SCR Team areas) 608-275-3223

Bill McNee (SER Team area) 920-662-5430

Direct public inquiries regarding yard tree concerns to UW county or state extension offices or:

Emerald ash borer hotline	1-800-462-2803
Emerald ash borer e-mail	DATCPEmeraldAshBorer@wi.gov
Gypsy moth hotline	1-800-642-MOTH

Additional Program Web-based Resources:

Forest Health web site: <http://www.dnr.state.wi.us/topic/ForestHealth/>

Gypsy Moth web site: <http://gypsymoth.wi.gov/>

Emerald ash borer web site: <http://www.dnr.state.wi.us/topic/ForestHealth/EmeraldAshBorer.html>

Emerald ash borer cooperative state web site: <http://emeraldashborer.wi.gov/>

Note: Southern Region is composed of both SCR and SER Team Counties

SCR Team Counties: Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock and Sauk

SER Team Counties: Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington, and Waukesha