Southern Region Forest Health Update

Wisconsin DNR, Forest Health Protection Unit

March 19, 2010 Vol. 7 No. 2

Topics in this update

Gypsy Moth Update

By Bill McNee and Mark Guthmiller

Gypsy moth eggs will start hatching a little over a month from now. Homeowners who are interested in reducing gypsy moth populations should consider oiling or removing egg masses well before then. Horticultural oils that suffocate the eggs are available at many garden centers and large retailers. In general, these are applied when temperatures are above 40^{o} and freezing is not imminent. If removing egg masses, scrape them into a bucket of soapy water and then let them soak for a few days before discarding in the trash. Additional management options for homeowners and woodlot owners are available at www.gypsymoth.wi.gov.

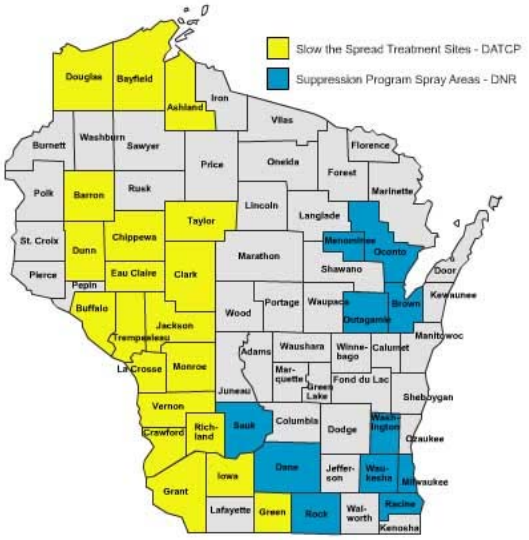
Female moths laying egg masses

Homeowners considering insecticide treatments this spring should contact an arborist or tree service soon. The Wisconsin Arborist Association has a list of certified arborists available at www.waa-isa.org. Additional businesses offering insecticide treatments may be found in the phone book under 'Tree Service.' Homeowners can also purchase insecticides (some applied as a soil drench) at garden centers and large retailers.

The price for aerial spraying done through the DNR Suppression Program this spring will be $32.85 per acre. Homeowners in urban areas can expect to see a red, twin engine airplane spraying this year. The plane used last year has been modified to spray more quickly, which should reduce public concerns about a low-flying airplane. Spraying in southern Wisconsin is expected to occur in the second half of May.

Spray training for Suppression Program participants will be held in Wauwatosa on April 12, Green Bay on April 14 and Fitchburg on April 21. Contact Mark Guthmiller or Bill McNee if there are questions. Southern Wisconsin counties in which spraying will occur this spring are: Dane, Milwaukee, Racine, Rock, Sauk, Washington and Waukesha.

The 2010 list of for-hire aerial applicators is now available at www.gypsymoth.wi.gov. Callers interested in aerial spraying for gypsy moth or other defoliating insects can be referred to this website for the list and a guide to organizing private spraying. There are currently only two applicators licensed for aerial spraying in residential areas (defined as more than one residence per five acres being sprayed). It's too late to add any treatment areas to the DNR Suppression Program for spraying this spring. Applicators should be contacted as soon as possible because gypsy moth spraying will be occurring only 10-12 weeks from now.



The proposed Slow-The-Spread gypsy moth treatments in western Wisconsin have been announced. This year, the Dept. of Agriculture, Trade and Consumer Protection is proposing to aerially treat nearly 230,000 acres in 20 counties (yellow on the map) using a bacterial insecticide, viral insecticide or mating disruption treatment. This program treats isolated, low-level populations to slow the westward spread of the gypsy moth. Where populations are higher and trees are threatened with defoliation, the DNR Suppression Program is offered (blue counties on the map are participating this year). To see where the STS treatments will be, visit http://www.datcp.state.wi.us/arm/environment/insects/gypsy-moth/map_index.jsp. Click on a county to see the treatments within that county.

Emerald Ash Borer (EAB) update

By Bill Mcnee

The DNR Forest Health Program's revised EAB silvicultural recommendations are now available online at http://dnr.wi.gov/forestry/fh/PDF/EABWIManagementGuidelines.pdf. These guidelines were updated to provide management advice in the vicinity of known EAB infestations.

EAB was found in Minneapolis, Minnesota in late February. Four infested trees were found in the Tower Hill Park area, which is southeast of the University of Minnesota's main campus and less than a mile from the first detection in St. Paul. EAB was also recently found in Sault Ste. Marie, Michigan. A multistate map of EAB detections is available at http://www.emeraldashborer.info/files/MultiState_EABpos.pdf.

The proposed 2010 national EAB trapping project will focus on counties surrounding quarantined counties, as well as along the Mississippi River. Wisconsin is anticipated to have 8,700 purple panel traps on a 1.5 square mile trapping grid (yellow counties on the map). Additional traps will be placed around the previous EAB detections. Some of the state parks may test a new 'double-decker' design which uses 2 of the purple panel traps placed on a pole. Traps will be in use between May and September.

Proposed 2010 Wisconsin EAB trapping grid.

The Urban Natural Resources Institute will host

'Emerald Ash Borer Host Mapping Project in Milwaukee: An Applied Model' as a webinar on Wednesday, March 24. This study used hyperspectral imaging technology to map urban ash with a classification accuracy of 84% and up to 93% accuracy for larger ash trees. For more information on the webinar, visit http://www.unri.org/webcasts/.

Last month's pest update advertised a landowner field day in Ozaukee County. An event summary and photos are available at http://dnr.wi.gov/forestry/UF/resources/Insider/20100312.htm#item11.

A collaboration of government agencies and universities has been awarded $2.2 million from the American Recovery and Reinvestment Act of 2009 (commonly known as 'stimulus funds') to operate the Slow Ash Mortality (SLAM) project in Michigan's Upper Peninsula. This project aims to develop strategies that slow the population buildup and spread of EAB. For more information, visit http://anrcom.msu.edu/press/020110/021910_eabfeds.htm.

The winter issue of the Wisconsin Emerald Ash Borer Program newsletter is now online at http://www.emeraldashborer.wi.gov/articleassets/EABNewsletterFebruary2010.pdf.]

Banded Elm Bark Beetle second county detection in Wisconsin

By Mark Guthmiller

Earlier this month a sample of a suspected banded elm bark beetle, collected from a residential Siberian elm in the city of Brookfield in Waukesha County, was confirmed by Phill Pellitteri, UW extension entomologist. This is the second confirmed county where the banded elm bark beetle has been detected. Banded elm bark beetle, *Scolytus schevyrewi,* is an exotic beetle native to northern China, central Asia, and Russia. The host range in the U.S. appears to be American, Siberian, English and rock elm. For more information see the January newsletter or the pest alert link attached here: http://na.fs.fed.us/pubs/palerts/banded_elm_beetle/beb.pdf

Adult Half Wing Moth

By Mark Guthmiller

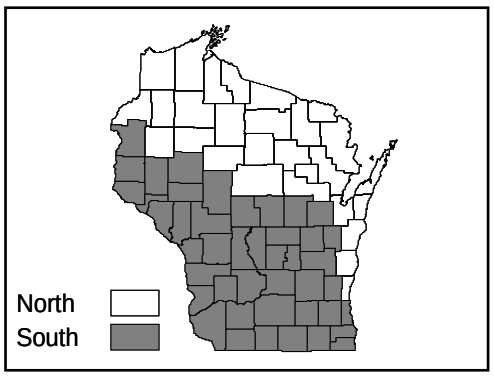
A little grey moth attracted some attention from staff and public visiting the South Central Region service center this past week. Some folks thought they were gypsy moths. Gypsy moths are still in the egg stage and adults will not be around until July and August. I checked in with Phill Pellitteri to get a possible ID. Phill thought they were a "Geometrid" half wing moth, possibly Phigalia titea or a similar species. This species has an early spring flight period into May. They were likely attracted to the lights at the building entrance at night. I didn't find much on this critter but sounds like the larvae feed on a variety of tree and shrub hosts including basswood, elm, birch, maple, and oak. I would not expect them to be a major tree pest issue based on little documentation on this species. The moths are likely males as the females of this species have reduced wing structures and don't fly.

Spring is approaching - Strop pruning oak

By Kyoko Scanlon

Though we just had some snow, spring is quickly approaching. That means we should stop pruning oaks to protect them from oak wilt. In the urban setting “Don’t prune April through July” is the key message. In some years, spring comes early, and if so, pruning should be stopped even before April. A week of 60 plus degrees of weather is considered to encourage the beetles to emerge from overwintering sites. We had several days of above-60 F weather in mid-March in many parts of the state. When the warm weather returns, it may be wise to stop pruning even before April.

If an oak tree is pruned from April through July, a wound dressing or paint should be applied to the cut surface as soon as the wound is created. Even half an hour can be enough time for beetles that transmit the disease to land on a fresh wound and infect your tree. While the risk of spreading oak wilt is low after July, homeowners should avoid pruning or wounding oaks until autumn, to be on the safe side.



In the forest setting, there is a separate, site specific oak harvest guidelines available for landowners, foresters, and loggers at the WI DNR Forestry website at http://dnr.wi.gov/forestry/fh/oakWilt/guidelines.asp. The guide is designed to provide information for landowners, managers and loggers on the relationship between the risk of introduction of oak wilt and the timing of any activities that may wound oaks or leave oak stumps. The guide also provides information on the relationship between various site and stand factors and the expected level of disease impact (based on root-graft spread).

The new oak harvest guidelines for the forest setting specify April 15 to July 15 for north of tension zone and April 1 to July 15 for south of tension zone as high risk periods.

Oak wilt can spread from a diseased tree to a healthy tree through a connected root system as well as by insects. Very small sap beetles transport fungal spores by landing on fungal mats found beneath the cracked bark of trees that died the previous year. The spores are then transmitted from the beetle onto the fresh wound of a healthy oak tree while the beetle is feeding at the pruned or damaged site.

If a wound is left unprotected, a new oak wilt pocket may develop in a location where oak wilt did not previously exist and will radiate to other oaks through the connected root systems. If no management steps are taken, the pocket could continue to expand year after year. Once oak wilt establishes itself in an area, control of the disease is both difficult and costly. The prevention of oak wilt is the best approach.

Oak wilt is found in all Wisconsin counties except Ashland, Bayfield, Calumet, Door, Douglas, Forest, Iron, Kewaunee, Lincoln, Manitowoc, Oneida, Price, Rusk, Sawyer, Sheboygan, Taylor, Vilas, and Washburn Counties. Every year, the disease kills many oaks in the state by interfering with the tree’s water and nutrient-conducting systems, essentially starving the tree. Leaves begin to wilt, and the tree may eventually die. Trees in the red oak group, such as northern red and

northern pin oak, are especially vulnerable, and once wilting symptoms become visible, the tree loses most of its leaves and dies very quickly, often within weeks. Trees in the white oak group – those with rounded or lobed leaves – are more resistant to oak wilt, and the disease progresses much more slowly, often one branch at a time. White oaks could live with oak wilt for many years, and some trees may recover from the disease.

Anyone interested in learning more about oak wilt and other forest pests as well as tree pruning should visit the Wisconsin DNR Forest Health Web pages for more information. Additional information about proper pruning techniques is available from your community forester, a University of Wisconsin-Extension agent (exit DNR), or DNR urban forestry coordinators.

Bacterial Leaf Scorch

By Kyoko Scanlon

Bacterial leaf scorch (BLS) is caused by the bacterium *Xylella fastidiosa*. Hosts include oak, maple, elm, ash, and other deciduous trees. The pathogen lives in the xylem vessels of host plants. Infected leaves exhibit scorch symptoms with irregular margins. The pathogen is transmitted by xylem-feeding insects, such as leafhoppers and treehoppers. The disease has been found throughout the east, southeast, and some mid-west states.

In 2009, Wisconsin participated in the survey supported by the U.S. Forest Service to investigate the geographic distribution and host range of BLS in north central states. This project was initiated in 2008, and continued to 2009. In 2008, BLS was confirmed on the bur oak samples collected from a woodland stand in Dane County. This was the first confirmed case of BLS in Wisconsin.

In the summer of 2009, leaf and twig samples were collected from symptomatic trees throughout Wisconsin and sent to a lab in Michigan State University to perform a genetic test. Out of the 33 samples submitted, 2 samples were found to be positive. These samples came from the same trees that had been confirmed positive in 2008. In 2009, no tree or a stand was additionally confirmed with BLS in Wisconsin. To date, the confirmed site in Dane County, WI is the northern edge of BLS distribution in the Midwest.

The results of 2009 BLS surveys in other states are available in the USDA Forest Service Central States Forest Health Watch (Feb 24, 2010 issue) at http://www.na.fs.fed.us/fhp/fhw/csfhw/10/jan10.pdf (p.6).

Annosum root rot

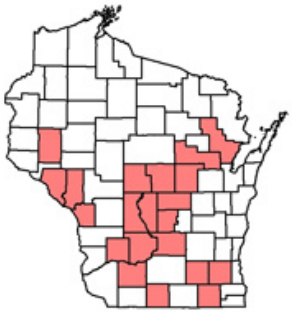
(An article from NER Forest Health Newsletter by DNR Forest Health Specialist, Linda Williams)

Scientists have given Annosum root rot a new species name. It is now called *Heterobasidion irregulare.* It was formerly referred to as *Heterobasidion annosum* or *Fomes annosus* depending on when you first learned about the disease. It's still the same disease, it just has a new scientific name.

The fruiting bodies of Annosum grow near the ground and may even be below the duff layer. They often incorporate duff into the fruiting structure (right). The underside of the fruiting body is white or buff colored with many small pits. Although pine seems to be the favored host here in Wisconsin all conifers can be infected and we have found Annosum killing some hardwood species as well.

Once established in a stand, Annosum root rot spreads from tree to tree via root grafts and forms pockets of dead/dying trees, but initially Annosum needs a fresh wound or a fresh stump to get its start in a stand. A spore lands on a fresh wound/stump and starts to grow, initiating a new infection site. Once a stump is infected the fungus then moves down into the roots and out through root grafts to neighboring trees where it causes decline and death of those trees, eventually creating a pocket of mortality that increases in size each year. This is not a super-speedy process but spreads at approximately the same speed as pocket decline (3-6 feet per year).

Prevention is the best tool we have for managing Annosum. In counties where Annosum is known to occur (shaded in pink on the map), and in neighboring counties, it is important to use a preventative stump treatment immediately following a conifer harvest (within 24 hours of a tree being cut) to prevent any new infections. Some loggers have put spray attachments on their equipment that will allow treatment as the tree is cut, or application can be done using backpack applicators. There are no curative treatments to eliminate Annosum after it is established in your stand so prevention is important.



More info on management can be found at http://dnr.wi.gov/forestry/Fh/annosum/ which also includes information on Red Pine Pocket Mortality which is a separate issue affecting red pine. If you write forest management plans and need a document on Annosum to include in your plans check out http://dnr.wi.gov/forestry/fh/annosum/pdf/Annosum_Factsheet.pdf

The most common question I get regarding Annosum is: is it safe to cut pine in the winter and not treat the stumps. The answer is: it is a lesser risk, but it is not risk free to cut during the winter. Spores of Annosum can germinate and grow any time that the temperatures are above freezing, and unfortunately here in Wisconsin we get days throughout the winter that are above freezing. So, although the risk is less during the winter, the risk will still be there if temperatures get above freezing.

The 2009 Wisconsin Forest Health Annual Report is on the web

Check out the 2009 Wisconsin Forest Health Highlights at http://dnr.wi.gov/forestry/publications/index.htm#fhp. This document describes detailed information about forest health conditions of Wisconsin in 2009. It includes status of major forest pest problems, both native and exotic, and a variety of forest health-related surveys, studies, and projects that were conducted in Wisconsin in 2009.

Other new publications/news articles

DNR Forestry online publications

The Division of Forestry has an online inventory of forest health publications, including gypsy moth, EAB, oak wilt and other issues. The real-time inventory of paper copies can be accessed at

http://intranet.dnr.state.wi.us/int/land/forestry/Publications/ (DNR staff only). Many of the publications can be downloaded as a PDF from this website. For non-DNR staff, many are available in online versions at http://dnr.wi.gov/forestry/publications/. Paper copies of publications can be obtained by emailing DNRFRPublications@wisconsin.gov (available numbers will vary).

Asian longhorned beetle concerns help fight crime

Asian long horned beetle concerns help fight crime… read this story: http://www.montrealgazette.com/news/Smuggling+plot+small/2582350/story.html.

Asian long horned beetle (left)
(www.forestryimages.org)

New UWEX publication about herbicide effectiveness

A new publication from University of Wisconsin-Extension, Herbicide Effectiveness on Invasive Plants in Wisconsin (A3893) is available at http://learningstore.uwex.edu/Assets/pdfs/A3893.pdf. Based on research and field observations, this new publication highlights the effectiveness of 32 herbicides on 32 different invasive plants commonly found in fields enrolled in the Conservation Reserve Program (CRP) in Wisconsin, all in a sturdy fold-out poster form for easy reference.

Plants listed include: burdock, Canada goldenrod, Chinese lespedeza, common tansy, crown vetch, curly dock, dames rocket, field bindweed, garlic mustard, giant hogweed, giant ragweed, hawkweeds, hill mustard, Japanese hedge parsley, Japanese knotweed, knapweeds, multiflora rose, phragmites, poison hemlock, purple loosestrife, Queen Anne's lace, reed canary grass, spurge (leafy and cypress), sweet clover (white and yellow), teasel (cutleaf and common), thistle (bull, Canada, marsh, musk, and plumeless), wild chervil, and wild parsnip.

To order hard copies, visit the **Learning Store** at: http://bit.ly/9SkXjg

About the newsletter

"Southern Region Forest Health Update" is an informal newsletter created by the Wisconsin DNR, Forest Health Protection Unit. The purpose of this newsletter is to provide foresters in the Southern Region with regional up-to-date forest health information. This newsletter will be issued monthly during the growing season and on an irregular basis during winter as topics come up. We welcome your comments/suggestions on this newsletter and your reports on forest health problems you observed in your area. If you would like to subscribe to this newsletter, please contact Kyoko Scanlon at Kyoko.Scanlon@wisconsin.gov.

Previous issues of this update and regional forest health updates from NER, NOR and WCR, are available from the WI DNR Forestry website at http://dnr.wi.gov/forestry/FH/intheNews/. Articles were written by DNR forest health specialists who cover Southern Region unless otherwise noted.

Please report to us

We appreciate reports of forest health problems in your areas. Please contact the following staff for regional forest health problems/questions. Thank you.

Forest health and gypsy moth assistance staffing changes - Mark Guthmiller

Some temporary changes have been made to forest health staff assistance. For forest health assistance in southern Wisconsin, please check the list below of staff and forest health concerns they can assist you with. This would be a good page to print out and keep for future reference.

SOR Forest Health Assistance
Wisconsin DNR, Forest Health Protection Unit
September 2009 to June 2010

Contacts for DNR staff, municipal foresters, and forestry cooperators

For general forest health issues

Jane Cummings-Carlson (northern part of SER Team area)	608-275-3273
Kyoko Scanlon (southern part of SER Team area, and SCR)	608-275-3275

For municipal level urban forest health issues (other then Gypsy moth and EAB)

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

For gypsy moth

Mark Guthmiller (SCR 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 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/org/land/forestry/FH/
Gypsy Moth web site: http://www.gypsymoth.wi.gov
Emerald ash borer web site: http://www.emeraldashborer.wi.gov/

SCR Team Counties: Columbia, Dane, Dodge, Grant, Green, Iowa, Lafayette, Richland, Rock and Sauk
SER Team Counties: Kenosha(S), Milwaukee(S), Ozaukee(N), Racine(S), Sheboygan(N), Walworth(S), Washington(N), and Waukesha (N) (S=Southern Counties serviced by Kyoko Scanlon and N=Northern counties serviced by Jane Cummings-Carlson