

Southern Region Forest Health Update

Wisconsin DNR, Forest Health Protection Unit

December 13, 2011 Vol. 8 No. 7

Topics in this update

Emerald Ash Borer
Gypsy Moth
Asian Longhorned Beetle
Annosum Winter Treatment
Ambrosia Beetle and Scale on Walnut Identified
Thousand Canker Disease Survey Update
Walnut Decline Report
Bur Oak Blight
Are You As Confused About Your Tar Spots As I Am?
Miscellaneous

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

Emerald Ash Borer– Bill McNee

Recent contacts with EAB trap and lure suppliers have confirmed that communities will be able to purchase EAB traps for their own use in 2012. The cost in 2012 will be ~ \$28 for a standard sticky panel trap and lure, plus shipping costs. DNR and the Wisconsin Dept. of Agriculture, Trade and Consumer Protection (DATCP) will be producing a supplier list and methodology guidance for communities that are interested in doing their own trapping.

The size and locations of the state trapping effort have yet to be determined, and we have heard that some communities are waiting for this information prior to making a decision on ordering their own traps. Branch peeling surveys can also be conducted to look for EAB (http://www.oakville.ca/Media_Files/forestry/EABbranchesamplingRyall2010.pdf).

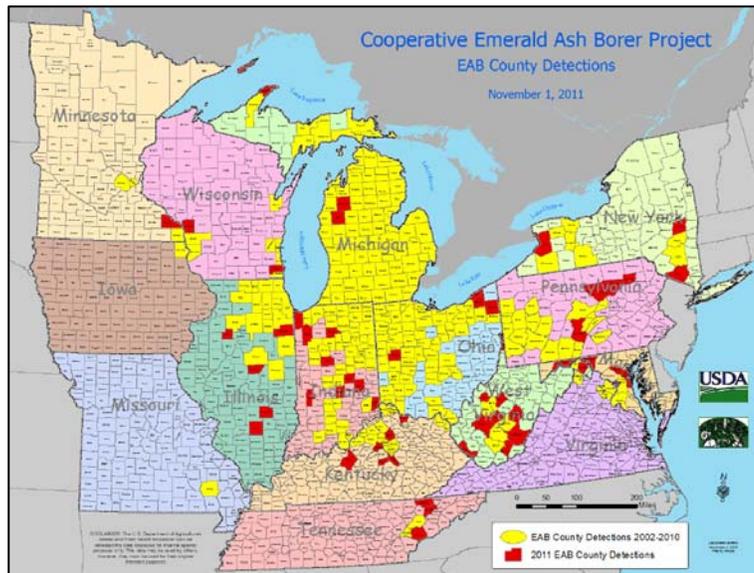
A new trap design will be available for the 2012 trapping season, in addition to the sticky panel traps. The funnel traps shown below can be ordered in purple or green (the same colors as the sticky panel traps), and are easy to use since insects are collected from the cup and do not need to be cleaned prior to identification. The traps are reusable for many years.

A recent Canadian study has identified a compound produced by unmated adult female EAB that boosts trap catches of male EAB by 45-100%. The study found increased trap catches on green traps baited with 'green leaf volatiles' and hung high in the canopy. It is hoped that enhanced trap lures will enter operational use within the next few years.

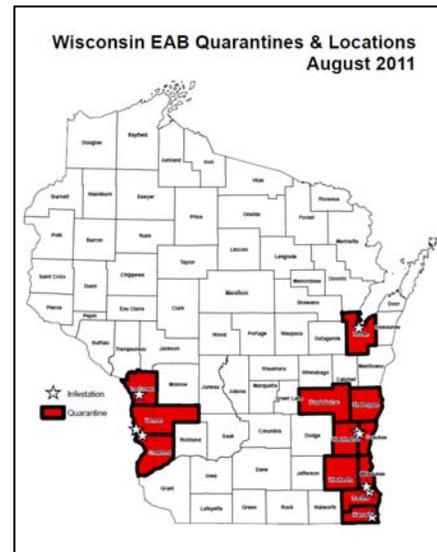


Green funnel trap can be used for EAB detection. Photo by Synergy Semiochemical.

Below is the current map of counties with first EAB detections in 2011 (in red). To date, 56 counties have first EAB detections in 2011. A majority of these detections have come from high-risk trapping and most of the rest have been through the reporting of symptomatic trees. The total number of counties with an EAB detection grew by about 25% this year. EAB was first found in Wisconsin in 2008. Shown at right is the current quarantine map for Wisconsin.



Counties in red had first EAB detection in 2011



Counties in red quarantined for EAB in Wisconsin

Gypsy Moth– Bill McNee

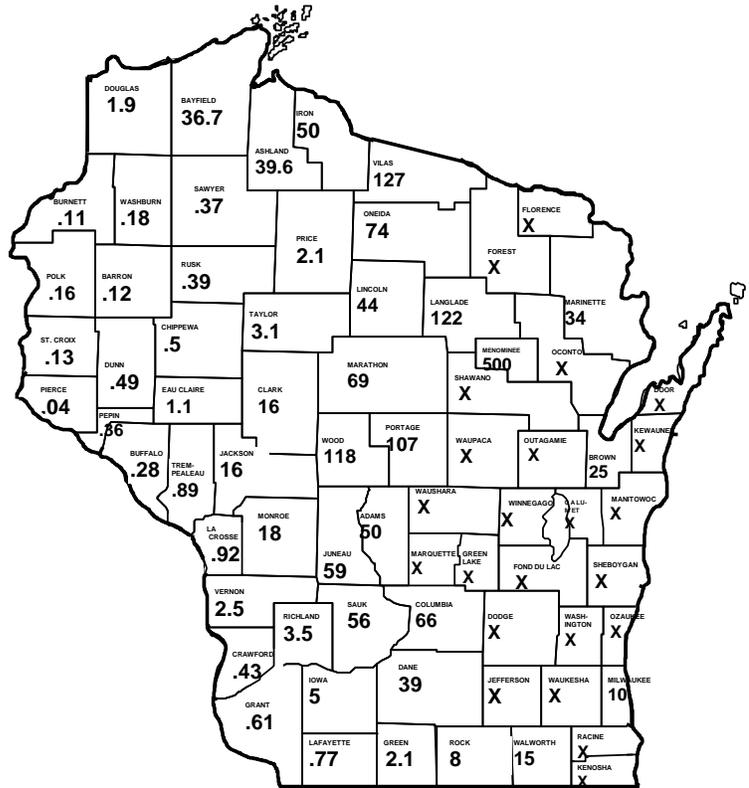
The 2012 DNR gypsy moth suppression program will be the smallest in program history. The only treatment will spray 190 acres at Gov. Thompson State Park in Marinette County.

To help reduce next year's population levels, scrape off egg masses within reach and drown them in soapy water between now and next April. 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.



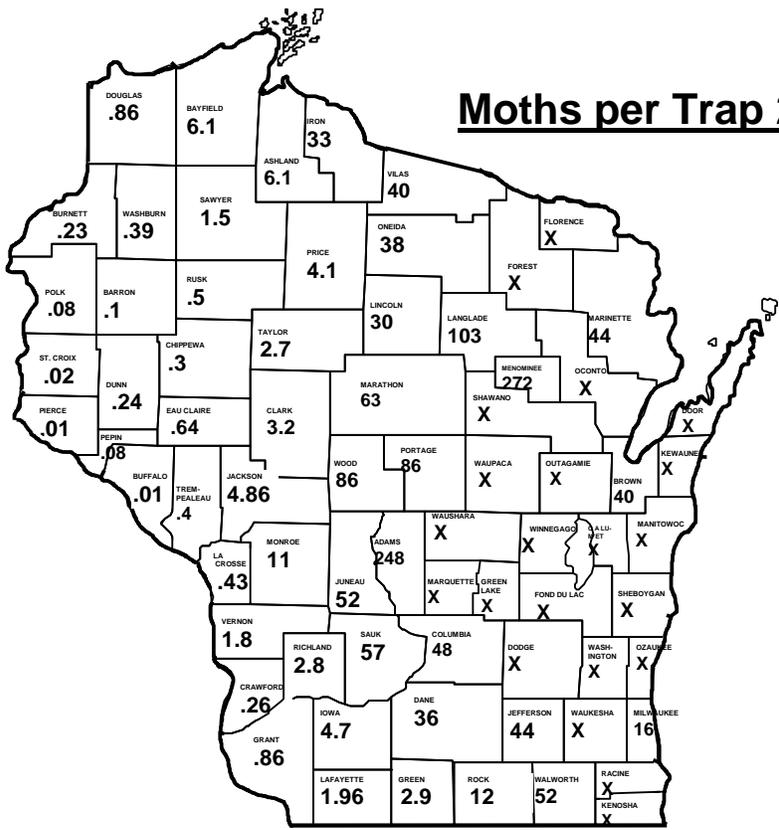
Scrape egg masses into soapy water.

Moths per Trap 2011

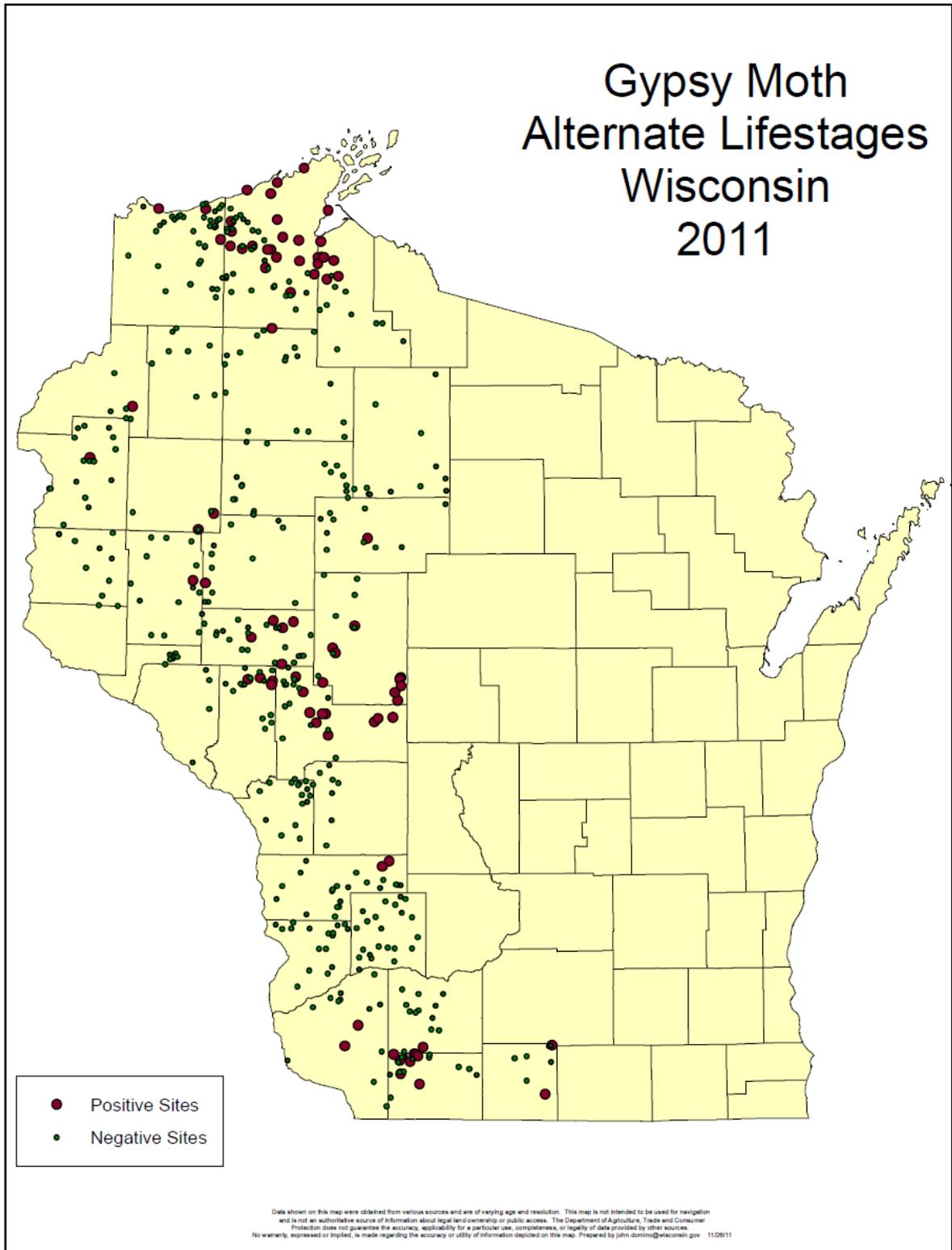


WI DATCP gypsy moth trap catch comparisons on an average moth per trap basis. These averages better reflect overall population trends as trapping densities may vary year to year. (Thanks to Chris Whitney, WI DATCP gypsy moth trapping coordinator, for all the great maps!)

Moths per Trap 2010



Gypsy Moth Alternate Lifestages Wisconsin 2011



WI DATCP gypsy moth alternate life stage survey findings.

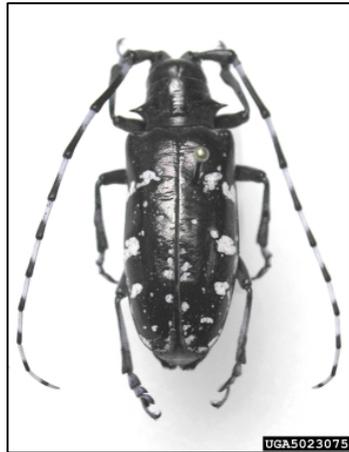
For the alternate life stage map, note that the red dots are positive detections and green dots are negative findings. They do not reflect overall abundance but rather just presence of alternate life stages that could indicate a breeding population. For southern Wisconsin the following are the specific survey results listed to the section:

County	Township	T	R	SEC	Larva/Skins	Pupa/Shells	New EM	Old EM
Grant	S Lancaster	4N	3W	2			1	
Grant	Liberty	5N	2W	4	2	2	5	
Green	Decatur	2N	9E	28		12	100	300
Green	Brooklyn	4N	9E	2			15	
Iowa	Mineral Point	4N	2E	11	1	2	2	
Lafayette	Elk Grove	3N	1E	23		1	3	1
Lafayette	Shullsburg	2N	2E	2	10+	10+	10+	6
Lafayette	Kendall	4N	2E	21	1	1		
Lafayette	Kendall	4N	2E	21	1	1	1	4+
Lafayette	Kendall	4N	2E	32				1
Lafayette	Kendall	4N	2E	27			1	
Lafayette	Belmont	4N	1E	34			1	
Lafayette	Belmont	4N	1E	20			1	1

WI DATCP Alternate Life Stage Survey Results for Southern WI Counties. Note that eastern Wisconsin is considered generally infested and not part of these surveys. Thanks to Chris Whitney, WI DATCP gypsy moth trapping coordinator for this information.

Asian Longhorned Beetle- Bill McNee

Recent studies have found that Asian longhorned beetle (ALB) had been present in Ohio (near Cincinnati) for at least 7 years before being detected this summer. At present, about 5,000 trees are known to be infested. The already-started eradication effort calls for the removal of 50,000 trees over about 850 acres. ALB has been successfully eradicated several times in Chicago and the New York City area.



Asian Longhorned Beetle adult.

Annosum Winter Treatment- Linda Williams (NER newsletter)

Annosum root rot winter fungicide application guidelines (for state DNR timber sales) – the following information was sent out by Paul DeLong, Wisconsin DNR Division of Forestry Administrator, on 11/15/2011 regarding treatment of stumps during the winter to prevent the spread of annosum root rot:

Interim winter fungicide application guidelines for annosum root rot

Background

Last year, issues were brought forth pertaining to the mechanized application of Cellu-Treat in cold weather. Cellu-Treat solution freezes and mechanized applications were impossible below freezing temperatures. Temporary guidelines were implemented to remedy the situation. Since then a new Cellu-Treat label has become available that will allow propylene glycol to be added to the chemical to lower the freezing temperature of the solution.

Given this new tool, the Division explored several alternatives in an effort to better balance operational considerations with the risk of spreading annosum. The Division sought input from GLTPA, a few County Forest Administrators and internal staff, to better understand the operational limitations coupled with the need for more data and understanding of how the additive works in the field. Given the feedback, it has been determined not to make any adjustments at this time to the interim policy used last winter.

These guidelines apply only to:

- State DNR timber sales currently under contract or those proposed for sale that have provisions for annosum treatment.
- Timber sales sold with the option of using Cellu-treat **OR** sporax application (Timber sales bid out specifically requiring a hand application of Sporax will still require treatment prescribed in the contract)

Application Guideline

Treatment is **NOT** required this winter if the following conditions can be met:

High temperature on the day of harvest is < 32 degrees Fahrenheit OR snow depth is > 12" in the woods

AND

The forecasted high temperatures for the next 10 days are not predicted to exceed 40 degrees Fahrenheit.

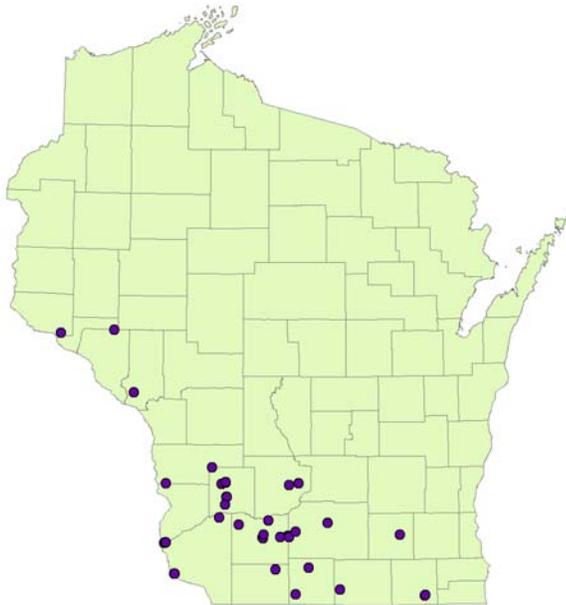
Note: Although mechanized applications with propylene glycol have been performed only at a limited scale and further field monitoring is needed to assure the feasibility of the application, we encourage operators use this option and believe it will allow harvesting to occur on more days that otherwise would have had possible without this change. DNR Forest Health staff will continue to work with loggers in late fall/early winter to test the feasibility of mechanized application with the Cellu-treat/propylene glycol mixture under various temperatures.

Thank you.

Paul

Thousand Canker Disease- Renee Pinski (watch for full article in upcoming annual report)

Map of Wisconsin depicting locations where walnut trees were surveyed for TCD. Of those properties surveyed that were public, table at right lists the State Park properties that were visited during TCD survey efforts. The number of trees sampled at each survey point ranges from one to four. We did not detect either the walnut twig beetle or *Geosmithia* fungus associated with this disease complex.



● Thousand Cankers Disease Survey Point

<u>State Park Property</u>	<u>County</u>
Big Foot Beach	Walworth
Blue Mounds	Iowa
Browntown-Cadiz Springs	Green
Devil's Lake	Sauk
Governor Dodge	Iowa
Governor Nelson	Dane
Nelson Dewey	Grant
New Glarus	Green
Tower Hill	Iowa
Wyalusing	Grant

Walnut Decline 2011 Survey Report (watch for full article in upcoming annual report)

With concern about thousand cankers disease (TCD), in 2011, surveys were conducted on both natural and plantation stands in southern and central Wisconsin. While this year's surveys did not confirm the presence of either the walnut twig beetle or the *Geosmithia* fungus associated with thousand cankers disease, we did however see varying levels of dieback to some individual black walnut trees as well as stands of walnut. Although variable, the highest levels of dieback were often observed in plantation stands in low ravine areas. There appears to be a number of pests and disease issues associated with this possible "decline" of walnut. Site, soils, and possible phytoplasma diseases could be long term predisposing factors. Cold injury to tissues could be playing a short term inciting role. Contributing factors might include ambrosia beetles, fusarium canker, nectria canker, buprestid beetles and/or the walnut scale. Other pathogens may also be involved with the "decline" being observed. The Chart below shows detections of various organisms observed in this year's survey. (sorry about the head crank if you did not print this!)

TCD_site	Survey Date	County	Township	Xylosandrus germanus	Walnut scale, <i>Quadraspidiotus juglansregiae</i>	Fusarium canker	Nectria canker (sp?)	Suspect Agrilus	Yellow foliage/flagging	<i>Pseudopezomyza pithiorus</i>
TCD01-JH	10/05/2011	Sauk	Baraboo	Suspect	Pos (1)		Pos	Suspect		
TCD20	09/16/2011	Rock	Spring Valley	Suspect	Pos		Pos	Suspect	Pos	Pos. -SK
GD-2	06/23/2011	Iowa	Dodgeville			Suspect				
GD-3	06/23/2011	Iowa	Dodgeville	Suspect		Suspect	Suspect			
GD-4	06/23/2011	Iowa	Dodgeville			Suspect		Suspect		Pos. -SK
SSTCD	07/20/2011	Richland	Marshall	Pos. - SK		Suspect		Suspect		
TCD0P (DP1,2)	07/20/2011	Richland	Forest			Suspect		Suspect	Pos	
BW3-TCD	06/17/2011	Grant	Watterstown		Pos	Suspect		Suspect		
BW1-TCD (RN1)	06/17/2011	Richland	Marshall							
BW2-TCD (RN2)	06/17/2011	Richland	Marshall			Suspect				
TCD-2	08/09/2011	Grant	Wyalusing		Pos			Suspect		
TCD-3	08/09/2011	Grant	Wyalusing					Suspect	Pos	
TCD-4	08/09/2011	Iowa	Wyoming	Pos. - SK	Pos			Suspect	Pos	
TCD-6	08/11/2011	Grant	Cassville					Suspect	Pos	
TCD-7	08/11/2011	Grant	Cassville		Pos			Suspect	Pos	
TCD-9	08/11/2011	Iowa	Brigham		Pos			Suspect	Pos	
TCD-10	08/12/2011	Iowa	Highland		Pos	Suspect		Suspect	Pos	
TCD-11	08/12/2011	Iowa	Highland	Pos. - SK		Suspect		Suspect	Pos	
TCD-13	08/22/2011	Richland	Dayton		Pos	Suspect		Suspect		
TCD-14	08/22/2011	Richland	Dayton		Pos (1)	Suspect		Suspect	Pos	
TCD-15	08/22/2011	Richland	Dayton			Suspect		Suspect	Pos	
TCD-16WY	08/22/2011	Richland	Eagle			Suspect		Suspect	Pos	
TCD-16	08/22/2011	Richland	Eagle	Suspect		Suspect		Suspect	Pos	
TCD-17	08/25/2011	Iowa	Brigham	Pos. - SK		Pos-KS		Suspect		
TCD-18	08/25/2011	Iowa	Brigham		Pos		Pos	Suspect	Pos	
TCD-18B	08/25/2011	Iowa	Brigham		Pos		Pos	Suspect	Pos	
TCD19	09/01/2011	Jefferson	Farmington	Suspect	Pos			Suspect	Pos	
TOTALS (27 samples)				4 pos, 5 susp	13 pos	1 pos, 13 susp	4 pos, 1 susp	18 susp	15 susp	2 pos

Bur Oak Blight- Kyoko Scanlon (submitted for annual report)

Since the 1990s, bur oak blight (BOB) has been reported in Midwestern States including Iowa, Kansas, Minnesota, Nebraska, and Wisconsin. The disease is believed to be caused by a new species of *Tubakia* fungus. *Tubakia dryina* has been known to be the causal agent of Tubakia leaf spot. However, BOB is considered a blight disease, not a leaf disease. In a severe case, all the leaves on a tree will die late in the season. Upon further investigation by Dr. Harrington of Iowa State University, *T. dryina* is now considered a species complex, and one species of *Tubakia*, currently called "BOB *Tubakia*" or "*Tubakia* sp. BOB" is associated with the disease.

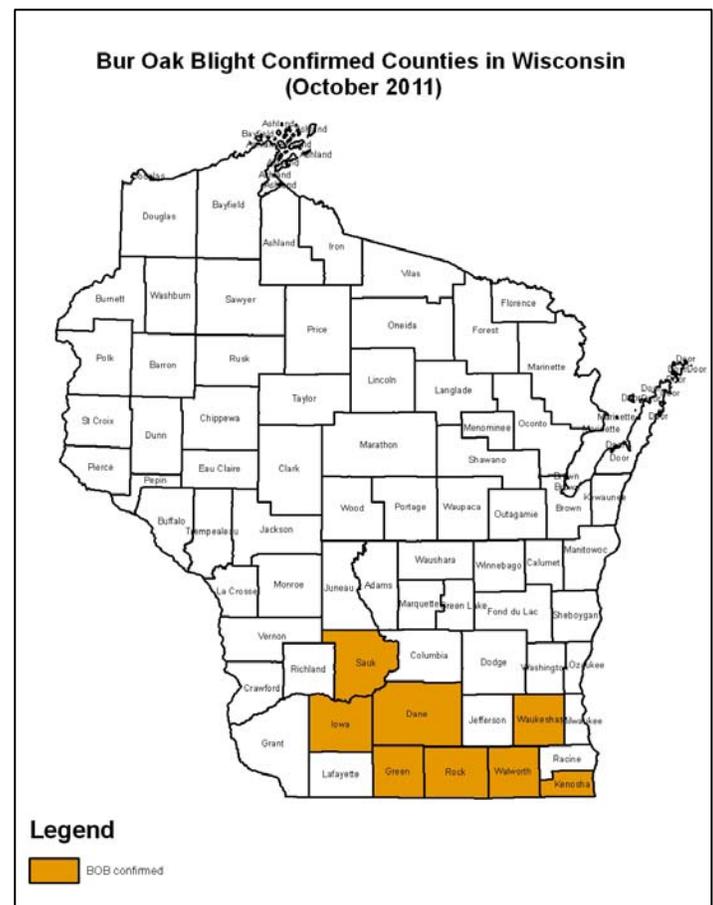
Bur oak blight has been confirmed in Dane, Green, Iowa, Kenosha, Rock, Sauk, Walworth, and Waukesha Cos. on bur oak. In 2011, leaf and twig samples were sent from Wisconsin to Iowa State University for the identification of "*Tubakia* sp. BOB". The samples were collected mainly from bur oak trees that were experiencing late season leaf necrosis. Laboratory analysis is in progress.

Bur oak blight symptoms usually start appearing in late July into early August. Infected leaves develop purple-brown lesions along the midvein and major lateral veins on the underside of leaves. Later, chlorosis and necrosis expand on leaves and affected leaves wilt and die. Severely affected trees may die after many years of infection together with other pest issues. Severe symptoms of BOB have been observed only on *Quercus macrocarpa* var. *oliviformis*, a variety of bur oak that produces smaller acorns.

What can we do if a tree is infected with BOB? Dr. Tom Harrington says "Don't panic. BOB is not as bad as it looks". Trees may be able to sustain repeated defoliation because it starts late in the season, though secondary pests may kill trees that are stressed by repeated infection with BOB. Practices to improve overall vigor of infected trees may help reduce the risk of attacks by secondary pests. The use of fungicides has been investigated as a management tool of high-value bur oak trees. In preliminary studies, injections of the fungicide propiconazole in the spring reduced symptom development in late summer/fall and the following year. Further fungicide studies are in progress.

For more information about BOB, a pest alert was recently developed by the USDA Forest Service and is viewed at

http://na.fs.fed.us/pubs/palerts/bur_oak_blight/bob_print.pdf.



Current list of BOB confirmed counties. There are samples still being processed and this does not include private submitted samples or samples tested at UW Plant Disease Diagnostics Lab.

Are You As Confused About Your Tar Spots As I Am?

I realize this may sound kind of personal but no I am not talking about your moles or lungs. There are a number of species of *Rhytisma* fungi, that cause black tar like spots on leaves of maples. I was familiar with the native *Rhytisma* sp. on silver maple and I have seen a species on the exotic Norway maple. This fall I observed massive “giant tar spots” and assumed this is yet another species. Little is apparently published on tar spot speciation but I did find this summary for those of you who are also going crazy over what tar spots you have. http://aslh.nyme.hu/fileadmin/dokumentumok/fmk/acta_silvatica/cikkek/VolE3-2007/08_hsiang_tian.pdf

Cornell fact sheet on tar spots in general: <http://plantclinic.cornell.edu/factsheets/tarspotofmaple.pdf>

Giant tar spot (*Rhytisma acerinum*): <http://extension.umass.edu/landscape/fact-sheets/giant-tar-spot>



I believe this to be the common native tar spot, *Rhytisma americanum*, on silver maple (*Acer saccharinum*). Note the very shiny solid 1/4-1/2” tar like spot with the yellow halo.



This tar spot on Norway maple (*Acer platanoides*), has been observed more frequently in recent years, especially in eastern parts of Wisconsin from Sturgeon Bay to Waukesha County. I thought this was *Rhytisma acerinum*, but now I am not sure. Note the more brown centers with the coalescing patches composed of many small tar spots. Whole crowns would brown up and drop leaves in August.



This “giant” tar spot was my first observation of this on Norway maple in Walworth County late this fall. It does not look at all like what I was calling *Rhytisma acerinum*, but based on the UMass web site I am thinking this may be *Rhytisma acerinum*, just at a different development stage and maybe at a lower infection rate.



Really cool looking tar spots on the fall foliage of these Norway maples

1991 New York time article: <http://www.nytimes.com/1991/01/27/nyregion/fungus-is-harming-maple-trees-in-new-york.html?pagewanted=print&src=pm>

Based on photo's in this research report I am suspecting my two photo's are the same fungus just that development stages and level of severity may be different causing the disparity in outward symptoms. http://www.uoguelph.ca/~thsiang/pubs/pdf/08tarspot_hortrev.pdf If others know differently I would love to hear from you.

So what tar spots do you have? Let me know.

Miscellaneous

World heavy weight champ!

World's heaviest insect discovered (Bill McNee):

A retired park ranger recently discovered the world's heaviest insect on an island in New Zealand. The giant weta, a cricket-like insect, weighs about 1/6 of a pound. The species is an example of 'island gigantism,' a phenomenon in which island species are often larger than their mainland relatives due to reduced pressure from predation and competition.

For impressive pictures, visit:

<http://www.dailymail.co.uk/sciencetech/article-2068547/Weta-insect-Heaviest-world-weighs-3-times-mouse.html>.

If you want to see the world's largest insects and other arthropods, visit:

<http://www.buzzfeed.com/mjs538/the-16-largest-insects-in-the-world>.

Look out! Dead tree limbs a larger problem this winter (Huntington, IN)

<http://www.wane.com/dpp/news/local/dead-tree-limbs-a-larger-problem-this-winter>

National Thousand Cankers Disease Website

<http://www.thousandcankers.com/>

Ohio Asian Longhorned Beetle Control Effort

<http://news.cincinnati.com/article/20111102/NEWS0108/111030345/State-ax-50-000-Clermont-trees?odyssey=tab%7Ctopnews%7Ctext%7CFRONTPAGE>

Update on Tulip Poplar Article

Cory Secher's article on Tulip Poplar in Green County generated some comments from retired DNR forestry staff who are familiar with these planting trials. Forestry team leader, Mary Ann Buenzow also replied that she was aware of natural regeneration coming in from planted tulip poplars on private land in Hebron Township in Jefferson County. See comments below;

Comments from Al Prey, Retired Forest Health Protection Coordinator:

The Tulip Poplar shown in your newsletter was planted in cooperation with the North Central Forest Experiment Station as part an Oak Management and Regeneration Study. I supervised the planting at the Albany Public Hunting Grounds. A Boy Scout, Brian Wade earned a merit badge or eagle scout credits with the planting. Results of the Study were published by the NCFES. The experiments were conducted at Albany and the Madison School Forest. Seedlings came from Indiana. I think we also planted oak seedlings. I had a file in the Lab and transferred the file to Paul Pingrey when he was forester in Dane County.

Comments from Ray Amiel, Retired Green County Forester: The yellow poplars at Albany, along with the red oak, sugar maple, red maple, walnut, and ash, were measured twice by me and the USFS (Johnson). The harvest and planting (with replication) dates back to about 1966 -68. I know of at least three papers on the silvics/ planting. Also....There's a twin to the harvest/planting at the Coulee Forest in LaCrosse County.

(1966! I do wonder if there may be a bowling match between Prey and Amiel to decide whose memory correctly remembered the "twin" planting site. Knowing both of these folks and their memories I would suggest there was a "triplet" planting site and both are likely correct. Let the pins fall!)

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/forestry/fh/>

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

Emerald ash borer web site: <http://dnr.wi.gov/forestry/fh>

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