

Southern Region Forest Health Update

Wisconsin DNR, Forest Health Protection Unit

September 2, 2011 Vol. 8 No. 5

Topics in this update

Maple Webworm Defoliation
Suspected Verticillium Wilt in Maples
Gypsy Moth
Gypsy Moth Suppression Treatment Requests?
Emerald Ash Borer (EAB)
Asian Longhorn Beetle (ALB)
Hemlock Woolly Adelgid Surveys
Fall Webworm
Imprelis Herbicide
Thousand Cankers Disease (TCD)
Walnut Dieback and Cankers
Suspect Burr Oak Blight Report?
Tar Spot on Maples
Miscellaneous

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

Maple Webworm Defoliation

Alert UW basin educator, John Exo, reported some kind of defoliation going on in western Columbia County on the border with eastern Sauk County a few weeks ago. This area also had known problems with forest tent caterpillar and elm spanworm from earlier in the summer. I am attributing the more recent defoliation to a caterpillar called the maple webworm, *Tetralopha asperatella*. I also suspect there was an earlier population of leafrollers (or spanworm) that the maple webworm utilized for egg laying. The level of defoliation at the time of my visit was moderate and included some damage from the earlier mentioned defoliators. The defoliation was fairly localized over approximately a few hundred acres in western Caledonia township. Maple webworm has color variations of the caterpillar phase.



Webbing of maple leaves by maple webworm. Note that the observed feeding damage is likely earlier forest tent caterpillar (FTC) as maple webworm is a skeltonizer.

For more info:

<http://www.forestpests.org/vermont/maplewebworm.html> and
<http://maple.dnr.cornell.edu/insects-disease/MapleLeafrollers.html>

With the timely rains I do not expect much impact to the forested area due to this additional defoliation (although see note below).

Apparently the maple webworm was recorded as present in WI back in 1957. See excerpt from: http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/acer/saccharum.htm
 [Many sugar maple trees died in a small area of Wisconsin and Michigan in 1957 (113). Certain insects—the leaf rollers (*Sparganothis acerivorana* and *Acleris chalybeana*) and the **maple webworm (*Tetralopha asperatella*)** combined with disease and climatic factors were thought to be the cause of this mortality (44,48,61,120). The decline has abated but appears to have recurred with less severity on a portion of the same area in the late 1970's]

A look back at the WI DNR Forest Pest Conditions Report from 1958 had this report for “Insects Associated with Maple in the Northeast Area”: [Maple Webworm – *Tetralopha* sp. near *asperatella*. This pest caused light defoliation in 1958. Defoliation had been severe in 1956 and 1957. Peak adult flights occurred in late July. Egg laying by the webworm was found to be consistently confined to leaves rolled by the leaf rollers that had been in the maple stands earlier in the season.] I did not find any information in the annual reports from the late 1970's.



Color variation of the maple webworm.

Northern Hardwoods Chapter report:

<p>Maple Webworm – <i>Tetralopha asperatella</i> Occasional outbreaks of summer defoliation may cause twig dieback. A combination of this pest and multiple defoliators together with some pathogens and adverse weather factors may cause maple blight (see maple blight under decline).</p>	<p>Sugar Maple</p>	<ul style="list-style-type: none"> Maintain healthy forests through proper forest management 	<p>Studies of Maple Blight. 1964. Univ. Wis. Agr. Exp. St. Res. Bull. 250</p>
---	--------------------	---	---

Suspected Verticillium Wilt in Maples

While conducting walnut surveys, Renee Pinski and I recently noticed some branch flagging with dried wilted leaves on sugar maple in northern Grant Co. Cutting into the branches revealed green streaking indicative of Verticillium wilt. For more information on this wilt pathogen go to: <http://hort.uwex.edu/articles/verticillium-wilt>



Advanced wilt symptoms on sugar maple



Green streaking in sapwood typical of Verticillium. Streaking can sometimes be brown or not present.

Gypsy Moth - Bill McNee

The flight of male gypsy moths is over in all Wisconsin counties except for the far northern ones. Trappers from the Dept. of Agriculture, Trade and Consumer Protection (DATCP) are currently taking down gypsy moth traps. DATCP reports that “catches in the southwestern counties are showing lower numbers than last year. Counties in the central part of the state are climbing near or above last year’s totals. Northwestern counties are showing scattered low counts of moths. Ashland County has doubled its moth catch from last year. Bayfield County is nearly the same as last year already.”

Egg laying in southern Wisconsin is complete, so egg mass surveys can begin in order to predict gypsy moth populations in 2012. For more information on how to do egg mass surveys, visit www.gypsymoth.wi.gov.



The summer of 2011 has been one of the quietest in recent memory, as the low populations generated few nuisance caterpillar complaints statewide. No defoliation attributed to gypsy moth was spotted in recent aerial surveys, and areas that were heavily defoliated in 2010 had little tree mortality thanks to the rainy summer of 2010 and spring of 2011.

Male (left) and female (right) gypsy moth adults.
Photos by Bill McNee and Mark Guthmiller.

Gypsy Moth Suppression Treatment Requests?

If you are involved with the gypsy moth suppression program and have areas you suspect you may apply for treatment for next spring please let me know. At this point I am not planning on offering a fall gypsy moth suppression training session due to the low interest and apparent lack of need for suppression treatments in southern Wisconsin. We are not planning changes to the application process and will have the updated application and guidance document available on the web soon. Contact me directly if you have any questions.

Emerald Ash Borer (EAB) – Bill McNee

Emerald Ash Borer (EAB) was detected in La Crosse County on August 18. Six adult beetles were found on a trap east of the city of La Crosse in a rural residential area. No infested trees have yet been found. This detection is about 20 miles from the already-known infestation near the town of Victory. It is not known if this is an extension of that infestation or is a new, distinct infestation. A week later it was announced that Minnesota had found adult beetles at two sites on the west side of the Mississippi River, a few miles from La Crosse. La Crosse County is now added to the EAB quarantine.

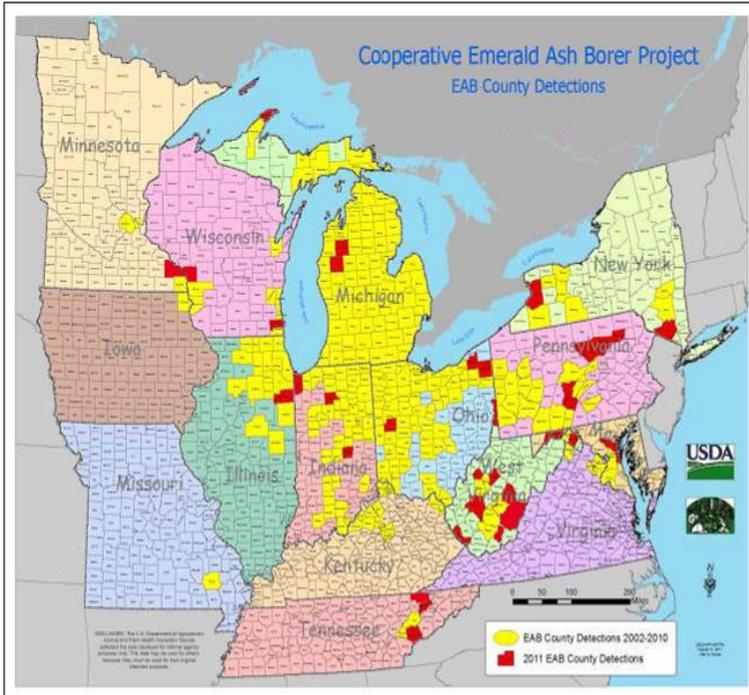
In late July, EAB was detected in Racine County for the first time on three purple traps in the Village of Caledonia. These detections are about a mile south of the well-established infestation in Oak Creek. No infested trees have yet been found in Caledonia.



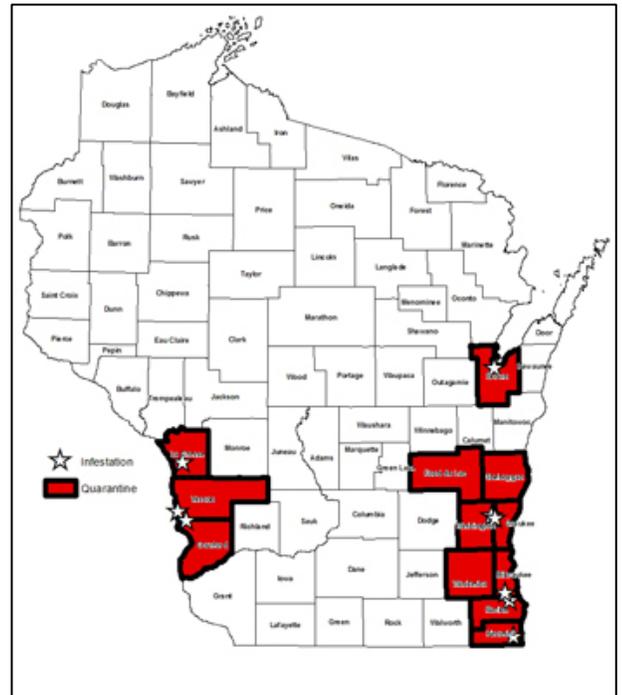
Purple EAB detection trap.
Photo by Rene Pinski.

Adult EAB flight should now be over in Wisconsin. Staff from DATCP have begun the final trap check and takedown. All traps will be down by mid-September. Double-decker EAB traps prepared by DNR staff on selected state parks and forests have also been checked and have not found any EAB to date.

Below is the current map of counties with first EAB detections in 2011 (in red). EAB was first found in Wisconsin 3 years ago. Since then, Iowa, Kentucky, Minnesota, New York and Tennessee have also had first EAB detections. To the right of the regional map is the updated quarantine map for Wisconsin.



First county detections of EAB in 2011 (in red). Map modified from a USDA APHIS map.



WI DATCP updated EAB quarantine map, including La Crosse County.

Asian Longhorn Beetle (ALB) – Bill McNee

After twelve years of battling the Asian Longhorned Beetle (ALB) in Islip, New York (located on central Long Island), this infestation has been declared eradicated. This insect is more than an inch in length, does not fly very far, and leaves noticeable signs of infestation. Eradication is often feasible, and several other areas in and around New York City are likely to be successful eradications as well. For more information, read this: http://www.nyfb.org/resources/topic_detail.cfm?ID=406.

ALB infestations have not been found in Wisconsin to date.



Asian Longhorned Beetle. Photo from www.forestryimages.org.

A recent study conducted in Massachusetts has argued that hardwood trees are more resilient to ALB infestation than previously believed, although they would eventually succumb to infestation. Many trees were found to be heavily infested but still growing and retaining green crowns. This study is the first to show that ALB can thrive in natural forested settings as well as open-grown urban trees. For more information, read the article at: <http://telegram.com/article/20110831/NEWS/108319913/1160/SPECIALSECTIONS04&source=rss>.

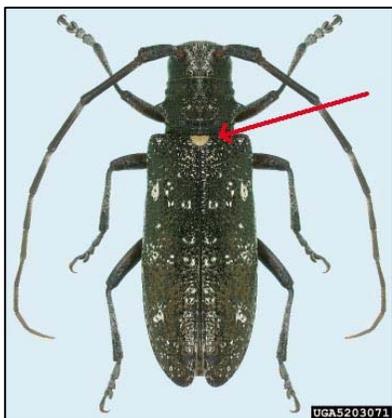
ALB Lookalikes Native to Wisconsin:

An APHIS outreach effort this summer generated numerous reports here in Wisconsin. To date those reports turned out to be the white-spotted sawyer, a native woodborer of stressed and recent dead pines. Here are links to ALB identification and how to distinguish ALB from the native lookalikes (most notably the whitespotted pine sawyer). ALB is glossy, has banded antennae, and lacks a white dot where the wing covers meet.

http://www.na.fs.fed.us/pubs/palerts/alb/alb_pa.pdf

http://massnrc.org/pests/blog/uploaded_images/ALBvsPinesawyer-715980.jpg

<http://www.uvm.edu/albeetle/identification/index.html>



Whitespotted pine sawyer (left) and Cottonwood Borer (right). Photos from www.forestryimages.org.

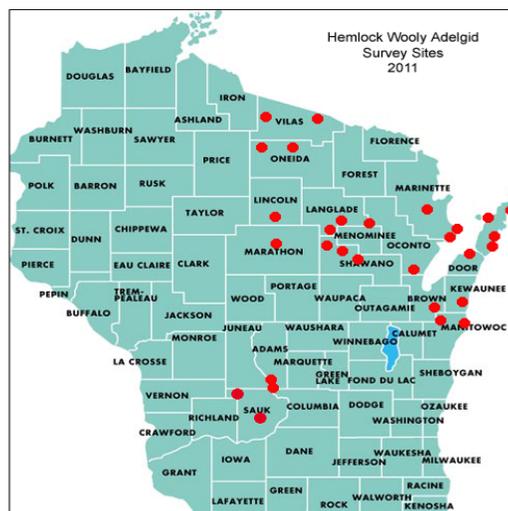
Hemlock Woolly Adelgid Surveys

Forest health staff continue to survey areas with hemlock for hemlock woolly adelgid (HWA). To date we have no detections of HWA in Wisconsin. The map show's the areas surveyed, not detections. For more information on HWA:

http://www.na.fs.fed.us/spfo/pubs/pest_al/hemlock/hwa05.htm



Hemlock with a few Hemlock Woolly Adelgids on stem and needles. Photo by Linda Williams



Locations of survey areas for hemlock woolly adelgid. No detections were found to date.

Fall Webworm

As of last week I started noticing webs and early instar caterpillars of fall webworm. Unlike eastern tent caterpillar, fall webworm tents are formed in the outer canopy of trees. The webbing can be seen in many hardwood species, including birch and walnut trees. The damage is considered minor and fall webworm is mostly a cosmetic concern. Where you can reach webbing simply pull it off using gloves and stick the webbing with caterpillars in a bucket of soapy water. You can also use a stick, rack, or long pole and pull down the web and stick it in a bucket of soapy water. Although likely not necessary, if you want to treat with pesticides you could use an insecticidal soap as a contact treatment to the caterpillars or use a btk formulation and treat the foliage in (break tent apart) and around the webbing.



Fall webworms and tent.

Imprelis Herbicide – Linda Williams (Taken from WCR newsletter)

DuPont voluntarily suspended sale of Imprelis on Aug. 4 and said it would begin a product recall and refund program by mid-August. Imprelis was sold only to commercial applicators and was not available over the counter. But it appears to have been widely used by some lawn care companies. The problem relates to how lawn application later affects conifers, causing severe symptoms and mortality of all sizes of trees (Photo 6).



Imprelis herbicide damage near Green Lake, WI. Photo by Mike Hillstrom

Michigan State University has finalized details for testing for Imprelis residues. You can visit the MSU Diagnostic Lab website (<http://www.pestid.msu.edu/>) and use their submission form for sample submission. Simply indicate that you would like your sample to be tested for Imprelis. The lab will need about 50 g of needle tissue which translates into stuffing a one gallon zip lock bag with 4-6 inch long symptomatic branch tips from an affected tree. Pack the branch tips dry, NOT wrapped in moistened paper towels. Try to ship the branches via overnight mail, and definitely send the sample early in the week. Fresh samples are great, but samples can be frozen as well, if you need to collect a sample, but cannot mail it in right away. The cost for testing of out-of-state samples is \$200. The MSU lab will bill and takes checks and credit cards.

A “what can homeowners do” factsheet is available from MSU at http://news.msue.msu.edu/uploads/files/122/Imprelis%20homeowner%20factsheet_Bert%20Cregg.pdf and more information can be found on UW Extension’s website at <http://hort.uwex.edu/articles/potential-imprelis%20AE-herbicide-damage-conifers>

Thousand Cankers Disease – Bill McNee

New DATCP regulations took effect August 1 to prohibit bringing potentially-infested items into Wisconsin from states known to harbor Thousand Cankers Disease (TCD). Regulated articles include all hardwood firewood, as well as nursery stock, unprocessed lumber and woodchips from *Juglans* species (butternut and black walnut). Importers can get exemptions from the rule if they can certify that the material they want to bring to Wisconsin has not been exposed to TCD or has been treated. Items such as treated lumber, furniture and food nuts are not regulated. The official DATCP news release can be read here: http://datcp.wi.gov/uploads/News_and_Events/pdf/ThousandCankersReg.pdf.

TCD has not been found in Wisconsin to date. Its name comes from lesions, or cankers, that develop when the walnut twig beetle tunnels through the bark just into the cambium, spreading a fungus, *Geosmithia morbida*. The tree’s foliage yellows and thins, and eventually the walnut tree dies. There are no known pesticides that will control this disease. It was first observed in New Mexico in the 1990s. So far this summer, TCD has been found in Virginia, Pennsylvania and in several counties in eastern Tennessee within the native range of black walnut. For more information about TCD, visit: <http://www.thousandcankerdisease.com/>.



Coalescing cankers of the *Geosmithia* fungus. Photo courtesy of Colorado State University.



Minute walnut twig beetles make many feeding attacks vectoring the fungus and giving the disease its name, thousand canker disease. Photo by Kathy Keatley Garvey.

Walnut Dieback and Cankers

With concern about Thousand Cankers Disease (TCD), we have been actively seeking requests of declining walnut, both natural and plantation stands. We have received a number of reports and followed up with site visits to many of these reports. Fortunately so far we are not seeing evidence of TCD. We are however seeing varying levels of decline and dieback to some black walnut trees. Most impacted are some plantation stands in low ravine areas in Richland, Iowa, and Sauk Counties. There appears to be some major players as to the cause of the decline and dieback but not constantly seen at all sites. There is a cryptic walnut scale (possibly obscure scale complex in the genus *Melanaspis*- See March 2011 newsletter), an ambrosia beetle, suspect fusarium canker, and occasionally necrotic canker showing up. We have some lab tests underway to help decipher the observed problems. A full report will be drafted for our annual report. Many of the issues appear very similar to a report and survey conducted in 1974 in some neighboring states. We also had similar issues

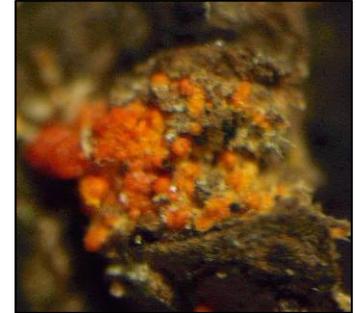
in the mid 1980's in Wisconsin. A better understanding of what is going on will be important as we continue to monitor for thousand canker disease.



Clusters of yellow scales with white undersides often hidden in bark crevices.



Necrotic canker like lesions in sapwood beyond canker callus ridge. Scales were prevalent in this area. No bark beetle activity indicative of TCD.



Occasional observation of perithecia indicative of nectria canker.



Possible fusarium canker with small ambrosia beetle attack holes on canker face.



So far only one site observed with ambrosia beetle attacks outside the canker face in green sapwood.



Cross section of walnut showing ambrosia beetle attack deep into sapwood.

Article on ambrosia beetle and fusarium association from 1974:

<https://www.ltr.arizona.edu/webhome/april/papers/an%20apparent%20symbiosis%20between%20fusarium%20fungi%20and%20ambrosia%20beetles%20causes%20canker%20on%20black%20walnut.pdf>

Suspect Bur Oak Blight Report Request

It is that time of year when symptoms of bur oak blight (*Tubakia* spp.) starts showing up. Often the lower canopy will be impacted first with signs of early leaf brown up. As part of an ongoing project to identify species of *Tubakia* we are looking for reports of observed symptoms indicative of this disease. Please give me a call or drop an email if you observe bur or white oaks with such symptoms.



Distant symptoms on bur oak with *Tubakia* leaf spot.



Close up of leaf spot and necrosis developing on infected leaf.

Tar Spot on Maples

Bill McNee forwarded a news article on tar spot that was recently run in the Milwaukee Journal Sentinel. <http://www.jsonline.com/blogs/news/128826353.html>

Many people are familiar with the distinct glossy tar spots on silver maple leaves. In some years we have seen a high prevalence of tar spot on Norway maple in some areas. One community in Waukesha County had it widespread one particular year. What was most interesting was that the early browning and leaf drop made it easy to spot how invasive Norway maple can be in a wooded setting.



Norway maple with the less glossy tar spots.



Woodland setting by driveway with leaf spot showing naturalizing population of Norway maple.

Miscellaneous

Quiz: (Thanks to John Nielsen for information and observations shared in this section)

How Old for a Walnut Tree to Produce its First Nut?

What Wisconsin Woodland Shrub is in the Citrus Family?

What Butterfly is Associated with this Woodland Shrub in the Citrus Family?

(See the end of the newsletter for the answers)

I'm stumped, any idea?? I could not ID this caterpillar. It was found at the site with maple webworm but not in any number. A prize to the first person to supply me with the correct answer- a pack of peanut M & M's.



SOR Forest Health Assistance
Wisconsin DNR, Forest Health Protection Unit
September 2010 to September 2011

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

How Old for a Walnut Tree to Produce its First Nut?

Looks like three years based on this potted grafted black walnut observed behind the forest health lab. Can anyone beat that! (John, a squirrel must have taken the nut on the adjacent butternut by the time I got this picture...good observation!)



What Wisconsin Woodland Shrub is in the Citrus Family? Prickly Ash

http://en.wikipedia.org/wiki/Zanthoxylum_americanum

What Butterfly is Associated with this Woodland Shrub in the Citrus Family? Giant Swallowtail

<http://wisconsinbutterflies.org/butterfly/species/4-giant-swallowtail>

Apparently Richland County is known for a relatively high population of giant swallowtail butterflies. Does that also mean it also has the record for prickly ash??

Have a Great Labor Day Weekend!

