

Southern Region Forest Health Update

Wisconsin DNR, Forest Health Protection Unit

February 18th, 2013 Vol. 10 No. 1

Topics in this update

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Articles in this newsletter were written by Mark Guthmiller, Regional Forest Health Specialist, unless otherwise noted.

Gypsy Moth – Bill McNee

Control Options

It will be about two months until gypsy moth egg masses start hatching, but property owners 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° and freezing is not imminent. If removing egg masses, scrape them into a can 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.



Gypsy moth egg masses

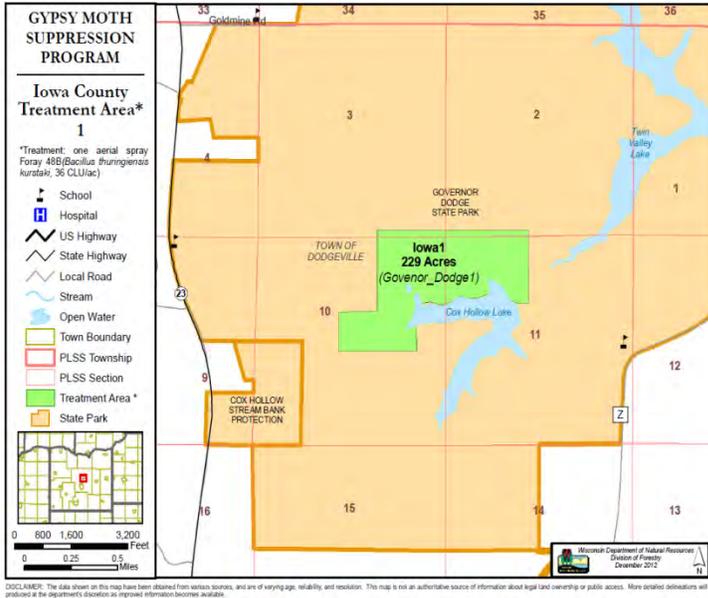
Property owners looking to hire a business to do insecticide treatments this spring should contact them soon. The Wisconsin Arborist Association has a list of certified arborists available at www.waa-isa.org. Additional businesses offering insecticide treatments may be found in the phone book under ‘Tree Service.’ Homeowners can also purchase insecticides (some applied as a soil drench) at garden centers and large retailers. For larger areas, a guide to organizing aerial spraying and a list of for-hire aerial applicators is available on the state’s gypsy moth website, www.gypsymoth.wi.gov.

Host Preference Research

Researchers at the University of Michigan have found another reason why gypsy moth caterpillars prefer oaks over maples – there is more protein in oak leaves. Oaks were found to have 30-40% more ‘essential amino acids’ than maple leaves, meaning that a caterpillar would have to ingest more maple leaf to get the same amount of protein. Previous research has shown that maples also produce more ‘tannin’ compounds that make it harder to digest the proteins that are present in the leaf. Read more at: <http://www.sciencedaily.com/releases/2013/01/130130111757.htm>.

Governor Dodge State Park Gypsy Moth Suppression Plans

Wisconsin DNR Parks and Forest Health programs held an open house meeting on Thursday, January 31st sharing information on the proposed 229 acre gypsy moth treatment block being planned for this spring for Governor Dodge state park. For more information and to sign up for email updates on spray activities visit www.gypsymoth.wi.gov

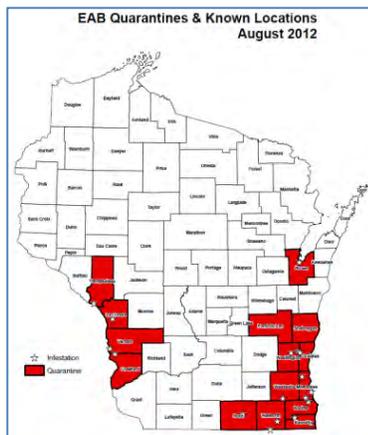


Governor Dodge State Park Proposed Gypsy Moth Suppression Block (map by Courtney Klaus, WI DNR)

Emerald Ash Borer – Bill McNee

New Detections in Southeastern Wisconsin

In the past week, two communities in southern Milwaukee County have had their first EAB detections: the village of Greendale and the city of Greenfield. The infestation was discovered after a city forester from a nearby community noticed suspicious woodpecker activity in Greendale. The pest was found nearby in Greenfield a few days later. The detections are about one mile from known-infested trees in the City of Franklin. For more information, visit: www.emeraldashborer.wi.gov. Milwaukee County is already under an EAB quarantine (see map).



Counties quarantined for EAB are shown in red.



Woodpecker signs on an EAB infested ash tree in Greenfield. Similar signs were evident on infested trees in Greendale. Photo by Bill McNee

Research Documenting Human Health Benefits of Trees

In recent years scientific research has been documenting the human health benefits of having trees in a person's immediate environment. A new study has found a statistical relationship showing increased human deaths from heart and lung diseases in areas where EAB is known to be killing ash trees, compared to deaths in areas not known to be infested by the tree-killing insect. The cause of the relationship has not been determined. More information can be found at:

<http://www.sciencedaily.com/releases/2013/01/130116163823.htm>.



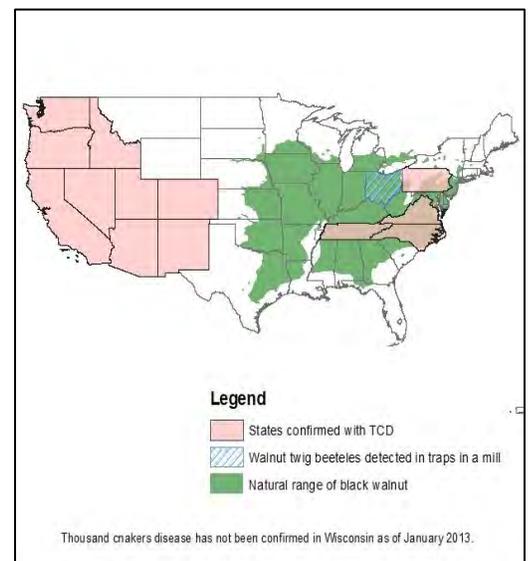
A beautiful ash tree turns color in Oshkosh, October 2012

Thousand Cankers Disease - Bill McNee

New TCD detection in North Carolina and Walnut Twig Beetle in Ohio

In January it was announced that thousand cankers disease (TCD) had been detected in North Carolina for the first time, on the NC side of Great Smoky Mountains National Park. In addition, the tiny beetle known to vector TCD, the walnut twig beetle, has been found at a wood-importing business near Cincinnati, Ohio. No signs of TCD have been seen in Ohio, though.

For more information about the North Carolina detection of TCD, visit: <http://www.ncagr.gov/paffairs/release/2013/1-13-Thousand-Cankers-Quarantine-Haywood-County.htm>.



States confirmed with TCD (red) and Walnut Twig Beetle (blue hash). Map by Kyoko Scanlon, WI DNR

Perenniporia Stem Rot of Ash

In the last newsletter of 2012 I made mention of this decay fungus of ash (*Perenniporia fraxinophila*) that I had observed in North Dakota. I also stated that I had never seen this on ash in Wisconsin. As mentioned in that article, it is apparently very common in the prairie states and common in the lake states. Staff from the Forest Service have reported seeing this fungus in parts of Wisconsin in the past and also reported observing *Perenniporia* at Interstate Park in West Central Wisconsin this winter. Just last week, while out surveying ash on the Avon Bottoms State Wildlife Area in Rock County, we came across a number of ash trees with fruiting bodies of what I believe is *Perenniporia*. Although the implications of this detection are minor compared to the pending pressures of EAB in this area, my excitement I think may have shocked the forester. After 20 plus years looking at ash and never seeing this, to suddenly come across it on the first ash survey of the year was baffling. Have I really just missed seeing this decay fungus all those years?! If others in southern WI are noticing this decay fungus on Ash I would love to hear from you.

For more information on *Perenniporia*: http://wiki.bugwood.org/Archive%3AAsh/Perenniporia_Stem_Rot



Nick Koltz, WI DNR forester, pointing at a Perenniporia conk.



Numerous Perenniporia conks on trunk and branches.



Close-up of an early forming Perenniporia conk at an old branch stub.

Elm and Ash Bark Beetles

As anticipated, it appears that elm and ash bark beetle activity is picking up. I have been noticing a fair amount of woodpecker signs on elm trees as they search for the small “c” shaped larvae. Woodpecker signs associated with ash bark beetle were also observed at the Avon Bottoms in Rock County. With the last year’s drought this is not surprising and we will likely be seeing more of this kind of damage. Sanitation efforts should be considered to reduce damage in woodlots. For more information on elm bark beetle

<http://www.entomology.umn.edu/cues/Web/111EuropeanElmBarkBeetle.pdf>



Woodpecker s stripping outer bark going after elm bark beetles leaving a rusty-tan appearance.



Smaller European elm bark beetle and “centipede like” gallery.



Small “c” shaped elm bark beetle larvae that the woodpeckers were going after.

Japanese Knotweed - Don Barrette, Southwest Badger RC&D

(Editor's note: Thanks to Don for this write up of a project addressing management of Japanese Knotweed. I found this project a wonderful example of cooperation between a landowners and a number of organizations including the River Alliance, Trout Unlimited, Richland County Land Conservation, Southwest Badger RC &D, WI DNR and others. Thanks Don!)

What is Japanese Knotweed? (Courtesy of The Midwest Invasive Plant Network - <http://mipn.org/>)

Additional information can also be found at: <http://dnr.wi.gov/topic/Invasives/fact/JapaneseKnotweed.html>

Scientific Name: *Polygonum cuspidatum*

Description: Herbaceous perennial, up to 10' tall. Hollow, reddish, arching bamboo-like stems are smooth and stout often persisting after plant dies back each year. The base of the stem above each joint is swollen and surrounded by a membranous sheath (ocrea).

Leaves: Alternate, egg-shaped to almost triangular, 4-6" long, 3-4" wide. Dark green on upper surface and pale green on lower surface.

Roots: Plants arising from seed have a taproot up to 6' deep. Stout, rhizomes can reach 65' or more from parent plants and give rise to new stalks. Both plants arising from seed and rhizome also have fibrous roots.

Flowers: Blooms in late summer. Flowers are numerous, highly branched, tiny, creamy white or greenish, and found where the leaf attaches to the stem (axils), near the tips of stems.

Similar Species: Giant knotweed (*P. sachalinense*) is also invasive, but grows up to 13' tall with larger leaves. The two species are known to hybridize.

Fruits and Seeds: Small, winged, triangular fruits carry very small, shiny seeds. Not as viable as reproduction through cloning.



Japanese knotweed in full bloom. Photo courtesy of Badger RC &D.



Young growth of Japanese knotweed. Note the bamboo like stems which gives rise to one of its common names "Mexican bamboo". Photo courtesy of Badger RC &D.

Where is Japanese Knotweed Found in Wisconsin?

Japanese knotweed was sold as an ornamental and for erosion control and has established in many parts of Wisconsin. It is a serious ecological threat to riparian systems. It is commonly observed in open areas along roadways, riparian corridors and woodland edges. It has now been reported throughout a good portion of Wisconsin.

Japanese Knotweed Project in Richland County on Willow Creek

(For more information on AIS grants visit:
<http://dnr.wi.gov/Aid/AIS.html>)

In 2011 Southwest Badger RC & D was awarded an AIS grant to hire an Aquatic Invasive Species Coordinator and to do AIS river and stream monitoring throughout nine counties of the driftless area. (Crawford, Grant, Green, Iowa, Lafayette, Lacrosse, Richland, Sauk, Vernon)



Japanese knotweed reported distribution as of July 2011. Source WI DNR.

AIS riverine and stream monitoring began in the summer of 2011 and it was during this time that Japanese Knotweed (JK) was first discovered on Willow Creek (Hwy 58 and CTH D). It is theorized (and remains the dominant thought) that it was brought to this location in soil containing JK root fragments or on equipment that also contained JK fragments, the equipment and soil was used to repair the highway that washed out after the regional floods of 2007 and 2008.

During that same summer Wisconsin DNR staff members (Sue Graham, Bob Wakeman and Scott VanEgeren) were informed of the new AIS findings as a result of Southwest Badgers AIS monitoring efforts. Richland County Conservationist Cathy Cooper was also informed of the presence of Japanese Knotweed on Willow Creek. She stated that Willow Creek is a popular destination for Trout anglers and encouraged me to inform local Trout Unlimited chapters of the Japanese Knotweed on Willow Creek. Coincidentally, while AIS site surveying I met two TU members from a TU chapter out of Illinois fishing on Willow Creek. They also expressed concern and interest over the discovery of this new plant (Japanese Knotweed) on Willow Creek. They stated that they were having trouble accessing several locations on the Willow Creek watershed because of this plant.

As a result of meetings with state (Southern Wisconsin, Harry Nohr), out of state (Illinois-Elliott Donnelley) TU chapters and other partners, a multi-group collaborative effort was initiated. Goals of the new partnerships were to pool resources, and to strategize ways to address Aquatic Invasive Species found in the region. This includes efforts to increase AIS awareness, promote outreach and education and to mitigate the transfer of Aquatic Invasive Species to other locations within the region currently free of Aquatic Invasive Species.

Fast Forward to the Japanese Knotweed Project on Willow Creek: The project was born out of earlier AIS meetings with Cathy Cooper, Sue Graham, Matt Krueger (River Alliance) Elliott Donnelley TU members Jerry Sapp and John Bacon and some private stakeholders from Richland County. We all felt there was a need to do something about the Japanese Knotweed on Willow Creek. We also felt that the size of the Japanese Knotweed populations was small enough to predict success of the project.

The project required a multi-phase approach. I will break the approach down into a timeline with a description of the actions that were taken throughout the project design and implementation.

Phase 1: Fall 2011-Spring 2012

- Gather involved partners and develop a plan to ensure success of the Japanese Knotweed control project. (Complete)
- Research other Japanese Knotweed Management Projects and note successes and failures; The Badfish Creek JK management project in Dane County was used as a reference
- Map the extent of Japanese Knotweed on Willow Creek and its tributaries recording GPS coordinates and population size of infested areas. This involved



Don Barrette showcasing the Willow Creek Japanese knotweed problem. Photo courtesy of Badger RC &D.

1. Mapping. Making sectioned maps of the entire watershed from the start on HWY K until the end of Willow Creek at the Pine River.

There were 26 sections with one map for each section of the river. Individual maps were given to different partner groups so that they could record and complete small areas at a time.

2. Recording data. The Elliott Donnelley TU Chapter was instrumental in recording much of the needed data while trout fishing on Willow Creek in the fall of 2011. They also participated in surveying during the spring of 2012 as did Matt Krueger of the River Alliance.
3. Survey methods. Portions of the stream that were not accessible to foot traffic and had to be surveyed by boat or kayak. This was done by SW Badger (Don Barrette) and another partner (Dean Jewel of a local kayak club).

- Once mapped and population size was determined the information was used to create acreage area maps to determine eligibility for a DNR AIS rapid response grant.
- Through meetings and discussions with Susan Graham and regional partners it was determined that the Willow Creek area was eligible for an AIS rapid Response Grant.
- The next step was to decide which organization would take the lead on writing the grant and completing the deliverables. Because the infested area was in Richland County, Cathy Cooper the County Conservationist decided it would be her agency.
- Writing the grant was the next step; Cathy wrote the grant with assistance from Southwest Badger and the River Alliance and was able to get support and approval of the county board for submitting the grant application to the DNR.

Phase 2: Spring 2012-Spring 2013

- Over the course of several months Cathy Cooper, Southwest Badger, River Alliance, Sue Graham, Bob Wakeman and Kelly Kearns worked on the logistics for what was needed to get an approved Rapid Response grant for the Japanese Knotweed Project on Willow Creek. This meant planning and delegating the future work detail for specific Best Management Practices in the control of Japanese Knotweed via mechanical or chemical control.
- Phase two also includes an early step in the control of Japanese Knotweed. It was determined that removal of the previous year's Japanese Knotweed dead stock was detrimental for a prediction of success for this project.

- Starting in the late summer and early fall of 2012 Southwest Badger (Don Barrette), River Alliance (Matt Krueger), Richland County (Cathy Cooper and staff) and DNR Foresters (Mike Finley, et al) proceeded to hand cut the dead stock on the upper sections of Willow Creek.
- We received permission from landowners to burn the material at the location of the cutting. We also did prairie burns at several locations where it was feasible. This was only possible because of participation from the WDNR foresters in that region.
- Currently only small populations of Japanese Knotweed dead stock remain on Willow Creek. (Small populations respond very well to just herbicide application if they are accessible and not surrounded by larger populations).



Burning of Japanese knotweed. Photo courtesy of Matt Krueger, River Alliance

Fast forward to January of 2013.

- The grant has been submitted to the DNR , which is are waiting for approval. After solicitation for bids, Applied Ecological Services (Broadhead, WI) has been awarded the contract for herbicide application. They have had previous experience controlling other aquatic invasive species populations. We are about to enter phase three.

Phase 3: Spring 2013-Fall 2013

- AIS Rapid Response Grant Award (Has not yet been awarded but we are hopeful)
- Mechanical and Chemical control efforts will begin.
 1. The spring and summer of 2013 will be spent cutting or pulling out the Knotweed at all locations on Willow Creek. This will be done in Early May when it first appears and again in late summer just before dormancy. It will be done by volunteers from UW Richland Center, Elliott Donnelley TU chapter members, Richland County Staff, Southwest Badger Staff, River Alliance Staff and other stakeholder volunteers.
 2. The fall of 2013 will see the beginning of the herbicide application by Applied Ecological Services. This process will start in early fall (September) when there is still some growth activity of the plant and just before the plant begins to store resources in preparation for winter.

Phase 4: Spring 2014-Spring 2015-?

- The process of cutting the Knotweed two times in the spring and summer and applying herbicide in the fall are the identified methods to help control and eventually eliminate Japanese Knotweed on Willow Creek. The years after 2013 will include follow up with sites visits to determine herbicide efficacy. (Each year the herbicide contractor has to be reapproved by the county board)

If you have questions about the Japanese Knotweed Project on Willow Creek or concerns about other Aquatic Invasive plant/animal species in the region you may contact Don Barrette (Southwest Badger RC&D) at 608-348-7114 or 608-219-7842 Email don.barrette@swbadger.org

For more photo's from this project visit: [Willow Creek knotweed removal - 11/30/12](#) Courtesy of Matt Krueger, River Alliance

Miscellaneous

Wisconsin DNR Forest Health Annual Report

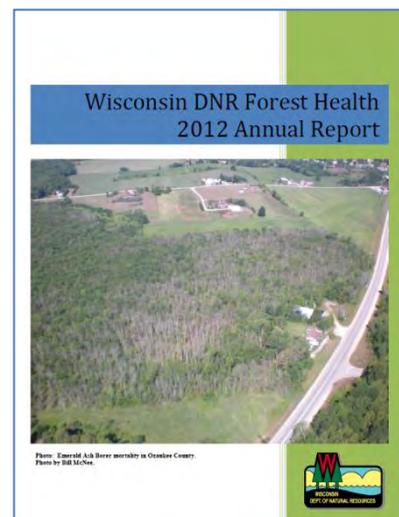
The Wisconsin DNR Forest Health program has released its 2012 Annual Report, available for download at:

<http://dnr.wi.gov/topic/ForestHealth/documents/AnnualReport2012.pdf>

Michigan and Iowa Forest Health Annual Reports

Annual Reports from Michigan and Iowa have also recently been released, and are available for viewing at:

https://www.michigan.gov/documents/dnr/ForestHH_409440_7.pdf and
<http://www.iowadnr.gov/Portals/idnr/uploads/forestry/Forest%20Health/foresthealthhighlightsIA12.pdf>.



Tri-State Forestry Stewardship Conference- Sinsinawa, WI

Save March 9th to head to Sinsinawa to take in numerous talks on forest management and visit booths including the WI DNR forest health program. Don't forget to pick up some fresh baked goods! For more information:

http://www.extension.iastate.edu/forestry/tri_state/tristrate_2013/Forms/tristateforest_2013.pdf

Madison Area Woodland Owners Conference-Madison, WI

For folks in the Madison area, save February 23rd to take in some great presentations, including Bernie Williams talk on invasive earthworms and their impacts. John Duplissis is also planning a timely presentation on drought and forest management. For more details and list of other great presentations visit:

<http://dane.uwex.edu/files/2011/12/Woodland-Owners-Trifold-2013.pdf>

Upcoming EAB University Webinars

- *EAB will Hit Your Budget; Planning is Key*

Tuesday, February 19th, 2013

- *Impacts of EAB on Forests*

Tuesday, February 26th, 2013

http://www.emeraldashborer.info/eab_university.cfm#sthash.00xqGaqs.dpbs

Pesticide Certification Training

Please take note of the Category 2.0 – Forestry session in Weston, WI on March 29th. This session may be helpful to those individuals interested in certification including stump treatment to prevent annosum root rot.

<http://ipcm.wisc.edu/pat/13-trainingschedule/>

Gifts that Keep on Giving: Invasive Species the U.S. Has Shared with the World

You may spend significant time working with invasive species that have arrived in the United States from somewhere else. Here is what the United States gave the rest of the world:

<http://www.takepart.com/photos/most-invasive-species-us-has-exported>.

Driftless Area Selected for Federal Conservation Funding Focus on Grazing, Fish and Wildlife, Reducing Erosion

The Natural Resources Conservation Service (NRCS) has announced Wisconsin will receive \$1.5 million this year to address conservation needs in the Driftless Area through a special Landscape Conservation Initiative. The focus will be to reduce soil erosion and improve fish and wildlife habitat on the working lands, woodlands, prairies, and cold water streams in the Driftless Area. This is the second year of funding for this initiative.

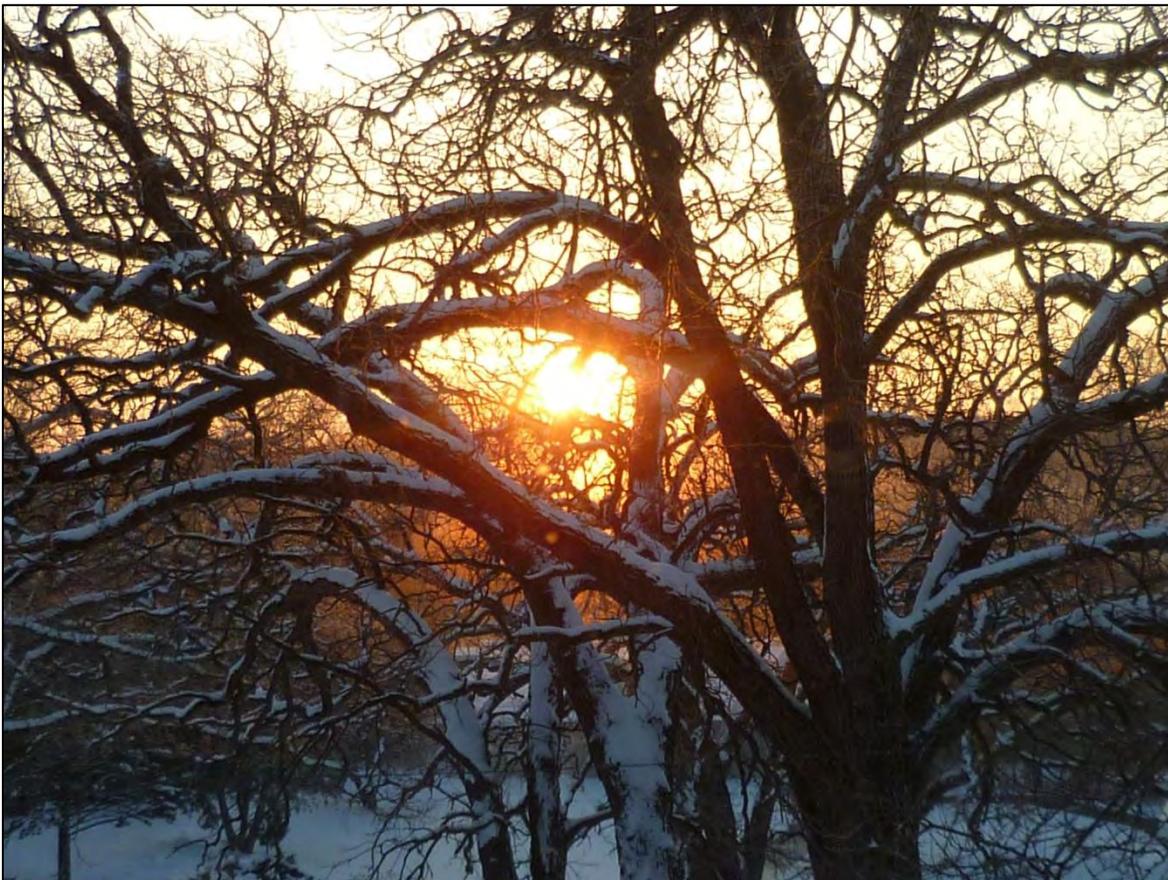
Farm and woodland owners in the Driftless Area may apply by March 15 for financial assistance for conservation practices to address resource issues. Many practices are available depending on the land use and conservation need. Interested landowners should contact the NRCS office at the USDA Service Center for their county. Applications received by March 15 will be considered for this year's funds.

More information is available online or contact the NRCS office at the USDA Service Center serving your county. <http://www.wi.nrcs.usda.gov/programs/eqip/DALCI/dalci.html>

Asian Longhorned Beetle Outreach and Public Awareness Materials

This site has some great identification materials for outreach and public awareness.

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



A view from my desk: the only thing better would be walking amongst the trees.

SOR Forest Health Assistance
Wisconsin DNR, Forest Health Protection Unit
February 2013 (or until further notice)

Contacts for DNR staff, municipal foresters, and forestry cooperators

For general forest health and municipal level urban forest health issues

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

For gypsy moth

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

Bill McNee (Old SER Team area) 920-303-5421

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

For emerald ash borer

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

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

For beech bark disease/beech scale

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

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

For invasive plants

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

Tom Boos (Statewide issues) 608-266-9276

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

UW Extension <http://www.uwex.edu/ces/cty/>

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://dnr.wi.gov/topic/ForestHealth/>

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

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

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

Forestry is now structured under Districts but Forest Health coverage continues under old region boundaries:

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

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

[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.]