

# West Central WI Forest Health Report

June 2011

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## Insects

### Gypsy Moth

The DNR gypsy moth suppression program is complete for 2011 (Photo 1). DATCP (slow-the-spread program) has also completed all aerial Btk treatments but will treat some areas with pheromone flakes when moths are present later in the summer. In untreated areas, late instar gypsy moth caterpillars will be present over the next couple of weeks and will be capable of defoliating entire trees in areas with high populations. Home or woodlot owners searching for management solutions should visit (<http://gypsymoth.wi.gov/>) or call 1-800-62-MOTH. Property managers, foresters or anyone else out on state lands should report gypsy moth defoliation to their regional forest health specialist. DATCP is also preparing for the transition from caterpillars to pupae to moths. More than 26,000 traps (Photo 2) are being hung around the state. Traps are baited with a female gypsy moth pheromone that attracts male moths.

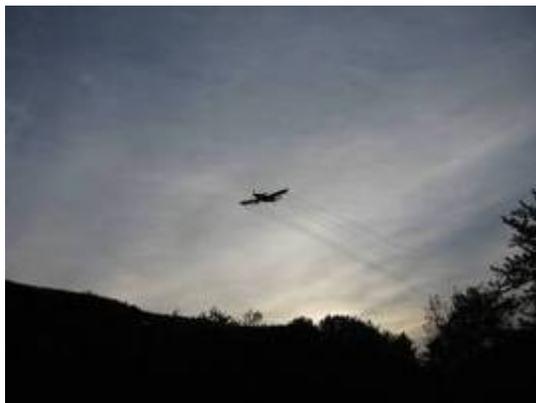


Photo 1. Gypsy moth spraying at Devils Lake State Park



Photo 2. Gypsy moth trap

## Eastern Tent Caterpillar

In general, Eastern Tent Caterpillar populations are much lower this year in the central part of the state than the previous few years. The exception is the Wisconsin Rapids area where high populations defoliated most of their preferred host trees (Photo 3). The majority of the caterpillars are in the late stages of development (Photo 4) at this point so insecticides will not help much as the feeding damage is mostly done. Remove the tents by hand or with a rake and drop them in soapy water. You do not need to prune the branches! Caterpillars will be gone soon and most trees will put out a second set of leaves.



Photo 3. ETC feeding damage near WI Rapids



Photo 4. ETC tent and caterpillars

## Emerald Ash Borer

**EAB in Wisconsin** - DATCP has completed setting 5,327 purple panel traps across WI to detect EAB. Good timing, as adult EABs are just starting to emerge (Photo 5). Please be on the lookout for any suspicious metallic green beetles on ash. You may have also heard about the recent release of two species of parasitic wasp (Photo 6) in SE Wisconsin to combat EAB. Read about the release at (<http://www.jsonline.com/news/milwaukee/123466839.html>) or listen to Ken Raffa (Forest Entomology professor at UW-Madison) speak about EAB and the wasps on WPR (<http://wpr.org/cardin/index.cfm?strDirection=Prev&dteShowDate=2011%2D06%2D15%2007%3A00%3A00%2E0>) (drag the bar to 11:30 to get to the EAB part).



Photo 5. EAB adults emerging June 9, 2011 in West Bend (Photo by Mike Jentsch)



Photo 6. A wasp released to help reduce EAB populations near Newburg on June 8, 2011

**National EAB News** – So far in 2011, EAB has been detected in 12 new counties in 7 states (Indiana, Maryland, Michigan, Ohio, Pennsylvania, Tennessee, and West Virginia). These new infestations include both the most northerly detection (Keweenaw County, U.P., Michigan) and the most southerly detection (Blount County, Tennessee) in North America to date.

## Diseases

### Rhizosphaera Needlecast

Rhizosphaera needlecast is one of several fungal diseases being commonly reported this spring, mainly on Colorado blue spruce. The lower branches of infected spruce trees often look sparse as the infected needles turn purple/brown and fall off (Photos 7, 8). Inspection of infected needles will reveal rows of tiny black fruiting bodies.

Management: Remove and dispose of all infected needles from both the tree and the ground. Clean your pruning tools with a 70% rubbing alcohol solution to prevent spread to other trees. Properly watering and fertilizing will help maintain tree health. Learn more about Rhizosphaera at (<http://hort.uwex.edu/articles/rhizosphaera-needle-cast> or <http://ohioline.osu.edu/hyg-fact/3000/3059.html>).



Photo 7. Dying purple/brown spruce needles infected with Rhizosphaera fungus (Photo by Linda Williams)



Photo 8. Rhizosphaera infected needles have fallen off the lower branches of this spruce (Photo by Linda Williams)

### White Pine Blister Rust

White pine blister rust is a serious fungal disease that infects white pine trees of all ages. Fungal infection starts when spores land on the needles then progresses into the branch and main stem. Infected trees are eventually killed by a stem girdling canker. The disease is most commonly noticed when lower branches start to die or because of the characteristic yellow-orange fruiting bodies (spread the spores) that are visible in the spring (Photos 9, 10). Excessive flow of white pitch near the canker is also diagnostic of white pine blister rust. Interestingly, the spores released from an infected white pine can only infect plants in the genus *Ribes* (gooseberry and currant) not other white pines. Spores from *Ribes* plants infect white pines later in the summer.

**White Pine Blister Rust Management:** If branch cankers are at least 4-6 inches from the main stem prune them off immediately. Branch cankers closer than 4 inches have likely already infected the main stem and removal will probably not save the tree. Other management options include removing gooseberry or currant plants within 300 feet of white pines and/or pruning off lower branches of white pine since they are the most likely to become infected.



Photo 9. A white pine infected with White Pine Blister Rust near Marshfield



Photo 10. Close up of spore releasing structures (Pictures taken May 20, 2011)

### **Red Pine Needle Disease (by Mike Hillstrom and Brian Schwingle)**

North-central Wisconsin foresters and forest health staff have reported non-severe needle disease on red pines this spring. Disease is most common on older needles in the lower crown.



Photo 11. Infected red pine needles (Photo by Brian Schwingle)

Symptomatic needles usually have green bases (Photo 11). The most likely suspects are *Dothistroma* Needle Blight (a.k.a “Red Band Disease”), Brown Spot Needle Blight or *Lophodermium* Needlecast. Infected ornamental or Christmas trees can be treated with copper-containing fungicides to prevent infection but this will not cure infected needles. These diseases are rarely a concern in forest stands as long as they are properly thinned. Check out the following links for more information.

<http://learningstore.uwex.edu/Assets/pdfs/A2620.pdf>  
<http://learningstore.uwex.edu/assets/pdfs/A2608.pdf>

## Report declining Walnut

As part of forest health's effort to monitor for the presence of Thousand Cankers Disease in Wisconsin we are looking for dead or dying walnut trees. Please report any you notice to your regional forest health specialist. To learn more about TCD visit ([http://na.fs.fed.us/pubs/palerts/cankers\\_disease/thousand\\_cankers\\_disease\\_screen\\_res.pdf](http://na.fs.fed.us/pubs/palerts/cankers_disease/thousand_cankers_disease_screen_res.pdf)).

## Bur Oak Blight (Kyoko Scanlon)

This is an update on Bur Oak Blight (BOB) in Wisconsin. A last minute sample collection to test for BOB was made last fall, and recently the results came back from Dr. Tom Harrington's lab of Iowa State University. Leaf and twig samples were collected from bur oak trees that were experiencing late season leaf necrosis (Photo 12) in 2 locations, one in Dane County and one in Green County. "Tubakia sp. BOB" was isolated from both samples.



Photo 12. Bur oak leaves infected with Burr Oak Blight (Photo by Christine Engelbrecht)

BOB is believed to be caused by a new species of Tubakia. *Tubakia dryina* has been known to be the causal agent of Tubakia leaf spot. However, BOB is considered a blight disease, than a leaf disease. In a severe case, all leaves on a tree will die late in the season. Symptoms of BOB have been reported in the Upper Midwest since 1990's, including Kansas, Iowa, Minnesota, Nebraska, and Wisconsin. Upon further investigation by Dr. Harrington's lab, *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. Dr. Harrington's lab is suggesting a new species name for the pathogen of BOB, and eventually there will be a scientific name for the species.

Dr. Harrington's lab is interested in collecting additional samples from Wisconsin this summer. I hope you could help sampling efforts. BOB symptoms usually start showing up around late July into early August. The best time to collect leaf and twig (stem) samples is August into mid-September. I plan to send you a reminder e-mail in early July or so. Samples can be collected from symptomatic leaves of any oak species. It doesn't have to be just bur oak as they are collecting the baseline data of various *Tubakia* sp. as well. It is noteworthy that our samples exhibited leaf symptoms somewhat different from what they have been observing in Iowa. With continuing collaboration with Dr. Harrington's lab, we should be able to learn more about what's happening to our oak trees in late summer.

More information about BOB, including Dr. Harrington's video that describes BOB and his research, is available at <http://www.public.iastate.edu/~tcharrin/BOB.html>. Please note that Dr. Harrington says "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. BOB should not be confused with oak wilt.

If you have any questions, please feel free to e-mail me or call me at 608-275-3275. Kyoko

## Abiotic Salt Injury

Anyone driving down Wisconsin roads this spring has noticed pines with light to severe browning of needles. Much of this damage is due to road salt being sprayed onto the trees by passing vehicles or by salt runoff from the road into the soil. Salt affects trees by causing dehydration of the needles, twigs and buds or by absorbing moisture in the soil that reduces the amount available for uptake by roots. Planting salt tolerant trees near roads or protecting trees from salt spray/runoff are the most practical management solutions. You can learn more about salt injury at (<http://learningstore.uwex.edu/assets/pdfs/A2970.pdf>).



Photo 13. Salt spray injury next to a WI highway.

### Winter Desiccation (by Linda Williams)

I am seeing significant amounts of winter desiccation (sometimes called winter burn) on conifers in many counties in northeastern Wisconsin. White pine is quite sensitive to this and is showing the most damage, although other conifers have been affected as well. With dry, snowless, warm, or long winters we often see evergreens turning a yellowish color about midway through the winter and into spring, with the needles then turning tan/brown. You may also see parts of the tree completely lose its needles. Moisture loss is the culprit. This moisture cannot be replenished in the needles until the ground thaws and water starts moving up the tree from the roots. Consequently, some needles may become so desiccated that they are beyond the point of recovery and simply die. A telltale sign that brown needles are due to winter desiccation is if you can see where the snowline was where the snow protected the needles on lower branches from drying out. Generally evergreens can recover from simple winter desiccation because the needles may be killed but the new buds are not and new growth will appear as normal in the spring. If the tree was in the path of salt-spray from nearby roads it will have been more severely desiccated and portions may not recover well.

## **Abnormally Brown Jack and White Pines (by Todd Lanigan)**

You may have noticed some abnormally brown looking jack and white pine lately; they appear to be more brown than normal from a distance. Once you get closer to the trees, you see what the cause of the coloration is. Some of the jack and white pines are heavy with male pollen cones while others are not.



Photos 14-17. Pine trees that appear brown due to large numbers of male pollen cones.

## **Forest Health News**

### **Jane Cummings Carlson Retiring (by Mark Guthmiller)**

More than 3 decades serving the people of Wisconsin helping protect and manage our forest resource, forest health program coordinator Jane Cummings Carlson has decided to retire at the end of this month. Jane has contributed extensively to the understanding of forest health issues and impacts to the forest resource in Wisconsin. She served many years as the state forest pathologist, working on many tree disease issues from fusarium canker on walnut to research on chestnut blight and many issues in-between. Her expertise in tree defect and decay will be greatly missed and almost impossible to replace. As state forest health program coordinator, Jane stepped into coordination efforts in responding to emerald ash borer and was one of the first advocates in the nation to address concerns of firewood movement and associated forest pest risks that go with such movement. With her foresight and efforts (along with others) the firewood movement issue became elevated to a national concern. Here is a big thanks to Jane for all her service and a sincere wish for a happy and enjoyable retirement! Knowing Jane she won't be sitting around for long! Thank you and best wishes Jane!

### **Arthropod Humor**

Two young weevils lived in Wisconsin. One studied hard and went to Madison to pursue fame and fortune. The other one never amounted to much and just hung around in Eau Claire. He, of course, became known as the lesser of two weevils.

**For general forest health and municipal level urban forest health issues contact:**



<http://new.dnr.wi.gov/Default.aspx?Page=4e114a1b-6bc4-4fd7-9e0b-755e7d11dd22>

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**Statewide reporting systems:**

**Report EAB:**

by phone 1-800-462-2803  
by email [DATCPEmeraldAshBorer@wisconsin.gov](mailto:DATCPEmeraldAshBorer@wisconsin.gov)  
visit the website <http://emeraldashborer.wi.gov>

**Report Gypsy Moth:**

by phone at 1-800-642-6684  
by email [dnrfgypsymoth@wisconsin.gov](mailto:dnrfgypsymoth@wisconsin.gov)  
visit the website <http://gypsymoth.wi.gov>

For additional information visit the Forest Health web site: <http://dnr.wi.gov/forestry/fh>

Note: This report covers forest health issues occurring in the West Central Region of Wisconsin. The purpose is to provide up-to-date information on forest health issues to foresters, forest landowners, and anyone else interested. We welcome your comments/suggestions on this newsletter as well as reports on forest health problems in your area. If you would like to subscribe to this newsletter, please contact Mike Hillstrom at [Michael.hillstrom@wisconsin.gov](mailto:Michael.hillstrom@wisconsin.gov). Previous issues of this update and regional forest health updates from NER, NOR and SOR, are available from the WI DNR Forestry website at <http://dnr.wi.gov/forestry/FH/intheNews/>. Articles written by Mike Hillstrom unless otherwise noted.

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.