

# Northeast Wisconsin Forest Health Update

June 15, 2011

Topics covered this month:

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Brown marmorated stink bug  
Emerald ash borer  
Gypsy moth  
Gypsy moth vs. other caterpillars  
Larch casebearer

## Diseases:

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## Other:

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Jane Cummings Carlson retiring  
Slugs on black knot  
Winter desiccation

## Insects

\*information and photos in this document from Linda Williams unless otherwise noted.

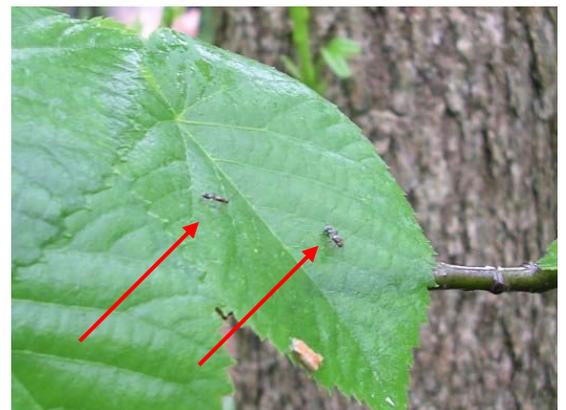
**Brown Marmorated Stink Bug** – from Bill McNee. Asian wasps are also being considered for eventual release against the Brown Marmorated Stink Bug, a nasty pest of many tree fruit and agricultural crops. For more information, read the following article:  
<http://www.pbs.org/newshour/rundown/2011/05/fighting-the-stink-bug.html>.

**Emerald Ash Borer** – from Bill McNee. On June 8, researchers from UW-Madison released two species of small, stingless wasps near Newburg to help control the emerald ash borer (EAB). Both species attack the EAB larvae beneath the bark. The level of EAB population reduction is not yet known, as the wasps have only been released in North America for a few years. A third natural enemy, which attacks the EAB



*Tetrastichus plannipennis*, one of the wasps released against EAB. Photo by David Cappaert.

eggs, will be released later this summer once the EAB adults are laying eggs. For more information, read the recent DNR news release at [http://www.dnr.wi.gov/news/BreakingNews\\_Lookup.asp](http://www.dnr.wi.gov/news/BreakingNews_Lookup.asp)



Asian wasps released at Newburg on June 8. Actual wasp size is about a 1/4" in length.

[?id=2083](#). Some video footage can also be seen by watching this story:  
<http://www.fox6now.com/news/witi-wasps-to-the-rescue-20110612,0,1387690.story>

Adult EAB flight should begin shortly in northeast Wisconsin, as beetles have begun emerging in the southern counties. In preparation, DATCP has hung approximately 6,000 purple EAB traps this year. About 2,000 are on a grid in northwest and southwest Wisconsin, while the rest are risk-based and placed in urban areas and at campgrounds, wood-utilizing businesses, etc. Traps are not being placed in Brown, Kenosha, Milwaukee, Ozaukee and Washington Counties because EAB has already been detected there.



Purple EAB detection trap.  
Photo by Rene Pinski.

If you see a purple trap lying on the ground, please email Becky Gray at DATCP ([rebecca.gray@wisconsin.gov](mailto:rebecca.gray@wisconsin.gov)). A trapper will rehang the trap.

DNR forest health staff have also prepared a ‘double-decker’ EAB trap in a number of state parks and forests. These traps are not practical to set up in large numbers, but may be able to detect EAB at lower populations than a standard trap hung in a tree.



Double-Decker EAB trap used in state parks and forests.

**Gypsy moth** – from Bill McNee. The DNR gypsy moth suppression program has completed all spraying for 2011. Treatment areas in southern Wisconsin were treated in late May and areas in the northeast were treated on June 2.

Over the next few weeks the gypsy moth caterpillars will be large enough to defoliate trees and become a nuisance for homeowners. Burlap collection bands should be prepared by mid-June and then checked every afternoon to dispose of hiding caterpillars. More information about management options for homeowners and woodlot owners is available at [www.gypsymoth.wi.gov](http://www.gypsymoth.wi.gov) or at 1-800-642-MOTH.



Mature gypsy moth caterpillar.

Local governments and property owner groups are encouraged to keep track of gypsy moth complaints for use in deciding whether to spray in 2012. To date we have not received very many caterpillar complaints, although numbers are expected to pick up as the caterpillars become larger and late-stage. Down in southwest Wisconsin 4<sup>th</sup> and 5<sup>th</sup> instars are already present.

Homeowners considering insecticide treatments in June should contact an arborist or tree service very soon. The Wisconsin Arborist Association has a list of certified arborists available at [www.waa-isa.org](http://www.waa-isa.org). Additional businesses offering insecticide treatments may be found in the phone book under ‘Tree Service.’ Homeowners can also purchase insecticides at garden centers and large retailers.



Burlap band used to collect larger gypsy moth caterpillars.

**Gypsy moth vs. other caterpillars** – eastern tent caterpillar and forest tent caterpillar are the two caterpillars most commonly mistaken for gypsy moth. So how do you tell the difference? The easiest way to tell the difference is to check the markings. Gypsy moth has pairs of red dots and blue dots, eastern tent caterpillar has a cream/yellow stripe down its back, and forest tent caterpillar has cream colored footprints or keyhole shapes down its back. Additionally, eastern tent caterpillar makes web nests (tents) while the others do not. Eastern tent caterpillar and forest tent caterpillar spin a slightly hairy pale yellow cocoon, while gypsy moth pupates as a shiny brown pupae with very little protection.



Gypsy moth



Eastern tent caterpillar



Forest tent caterpillar

**Larch casebearer** – severe defoliation of tamarack, due to larch casebearer, was noticed in central Marinette County. This insect overwinters as a caterpillar and is able to start



Larch casebearer caterpillar feeding with mined needle "skin" as portable shelter.

feeding early in the spring as soon as the weather warms up. They use a mined out needle as a protective house and appear as small tan pointy things on the needles of the tree. In cases of severe



Browning of tamarack caused by larch casebearer defoliation.

defoliation the tree will appear completely tan from a distance. Repeated defoliation can weaken the tree making it susceptible to attack by Eastern Larch Beetle. If you combine the stress of defoliation with other stressors, such as past years of drought, or late season flooding, it increases the likelihood of attack by Eastern Larch Beetle.

## Diseases

**Ash anthracnose and ash leaf drop** – the cool wet weather this spring promoted the leaf disease anthracnose, infecting young leaves



Severe damage to emerging leaves.

of ash trees. I haven't had a lot of calls of ash dropping these infected leaves yet but you should be prepared for this since the damage I'm seeing to ash is significant and I expect that many of the ash trees will purge these leaves soon. Some trees will retain these misshapen leaves (right) through the



Ash anthracnose causes irregular blotches of necrotic tissue on leaves.

growing season and this damage is usually mostly

cosmetic, not affecting the long term health of the tree. If the tree does purge the damaged leaves it will attempt to send out a second set of leaves to sustain it through the summer.

**Beech Bark Disease** – from Bill McNee. Federal funding has been provided to establish a beech bark disease monitoring and impact assessment project in Wisconsin for 2011. Travis Karschnik, a graduate student from UW-Stevens Point, will be working on the project under the supervision of Dr. Holly Petrillo and Dr. Neil Heywood. If you see white 'wool' on beech trees, please report it to a DNR forest health specialist. To date, very low populations of beech scale have been detected in the lakeshore counties and in Marinette and Oconto Counties.



White 'wool' produced by beech scale.

Beech Bark Disease and disease-caused tree mortality have only been found in Door County

**Bur Oak Blight** – from 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 in 2 locations, one in Dane County and one in Green County. "Tubakia sp. BOB" was isolated from both samples.

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



Symptoms of Burr Oak Blight can look similar to anthracnose. Photo by Christine Engelbrecht.

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

**Cinder conk used for tea** – last month in the pest update I included a paragraph and photo of cinder conk on birch. One reader promptly emailed me asking if chaga tea was made from this fungus. Having never heard of chaga tea I did a search about making chaga tea and indeed cinder conk (*Inonotus obliquus*) is used to make chaga tea. Cinder conk is already known by numerous names: clinker polypore, clinker fungus, cinder conk, birch canker polypore, black mass, sterile conk, and a couple of more colorful names that I won't list here. And now I know one more name that this fungus goes by: chaga. Have any of you ever made chaga tea?

**Dothistroma needle blight** - red pine and Austrian pine trees can sometimes be difficult to tell apart. If you're not sure if you have Austrian Pine or Red Pine there is a fungal disease that will



Tree severely affected by Dothistroma needle blight has brownish cast from a distance.

help you figure out which species you have. In this area, with recent reports from Outagamie County, Dothistroma needle blight often causes problems in Austrian Pine.

Austrian pines (both plantations and

landscape trees) remain susceptible to this fungus throughout the life of the tree so trees of all sizes may show symptoms. Dothistroma needle blight starts with the fungus infecting the needles and causing reddish-brown spots. From the point of the infection to the tip of the needle will quickly turn brown, the base of the needle will remain green. Austrian pine usually



Tips of infected needles turn brown and drop prematurely.

retains needles for 3 or 5 years but infected needles will drop prematurely the year after infection. This premature needle drop gives the trees a thin crowned appearance. There are some seedstocks that are resistant to Dothistroma needle blight so if you're thinking of planting any Austrian Pines be sure to look for these resistant trees. Trees under stress are more susceptible to infection by Dothistroma.

**Rhizosphaera needlecast** – I reported last month that I had received some reports of spruce being affected by rhizosphaera needlecast, but since then the reports have really started rolling in from all around the region. Additionally, in my



Older needles infected with rhizosphaera have died prematurely and dropped off, leaving only the current year growth.

travels I'm seeing severe damage to many more spruce from this disease. The symptoms have hit suddenly with the needles turning a reddish brown just as the new buds were expanding.



Reddish brown needles infected with rhizosphaera will soon drop from tree.

Affected trees include not just blue spruce, which is the most common spruce that I see infected by this needle disease, but black hills spruce, and white spruce are being severely affected as well,

whether in plantations, in natural stands, or as ornamentals. Lower branches are affected more severely than upper branches, which causes the tree to begin to look thin on the bottom. More info can be found at <http://learningstore.uwex.edu/Assets/pdfs/A2640.pdf>

## Other/Misc.

**Firewood Movement** - Now that we are into camping season, remind the public to buy firewood near where they plan to burn it in order to reduce the spread of invasive pests. A new handout explains the state's restrictions on firewood movement, and should help to make the rules less confusing. It can be downloaded at:

[https://onlineservices.datcp.wi.gov/eab/articleassets/EAB\\_GM\\_Firewood\\_Restrictions.pdf](https://onlineservices.datcp.wi.gov/eab/articleassets/EAB_GM_Firewood_Restrictions.pdf).

For more information on firewood movement, please visit the WI DNR website at <http://dnr.wi.gov/invasives/firewood/>. Be aware that private campgrounds, county parks, national parks and national forests may have their own restrictions that are not covered on the map.

In addition, a new letter-sized "Don't Move Firewood" poster has been produced, and is shown below. If you would like



Firewood poster available for distribution.

the file to print and distribute, contact Linda or Bill.

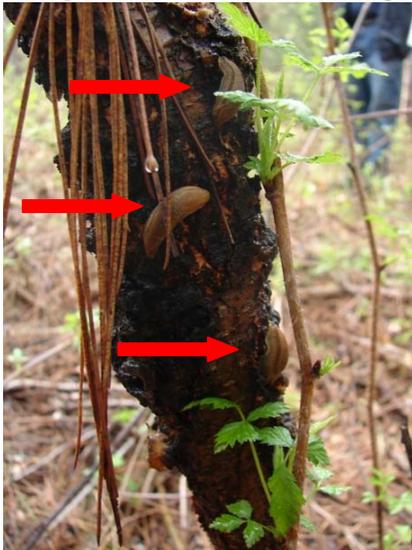
**Jane Cummings Carlson Retiring** – reprinted from Mark Guthmiller’s Southern Region Forest Health Update. After more than 3 decades serving the people of Wisconsin helping protect and manage our forest resource, forest health program coordinator Jane Cummings Carlson has decided to retire at the end 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.



Forest health program coordinator, Jane Cummings Carlson.

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!

**Slugs on black knot** – during a field visit to Waupaca County in May,



Slugs on black knot swelling. that word enough!).

slugs appeared to be congregating or feeding on black knot on cherry. Black knot is a fungal infection that occurs on the twigs and stems of cherry and other *Prunus* species. These swellings (or galls or burls, whatever you want to call them) can continue to grow from year to year and can girdle branches and stems, causing dieback, stunting, and in some cases eventual death of the tree, although in other cases the tree can live for many decades (large black knot burls on main stem in photo at right). I’m not sure why the slugs were on the black knot swellings, perhaps it was just happenstance (you just don’t get to use



Large black knot burls with Steve Katovich for size comparison.

**Winter desiccation** – 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



New buds are often not affected by winter desiccation and will break as normal. Photo by Bill Ruff.

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.

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, like in the photo at right, where the snow protected the needles on lower branches from drying out. Generally evergreens can recover from simple winter



Winter desiccation, note green needles on lowest branches that were protected by snow. Photo by Bill Ruff.

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://www.gypsymoth.wi.gov/>

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**Note: This pest update covers forest health issues occurring in Northeastern Wisconsin. This informal newsletter is created to provide up-to-date information to foresters, landowners, and others on forest health issues. If you have insect or disease issues to report in areas other than northeastern Wisconsin please report them to your local extension agent, state entomologist or pathologist, or area forest pest specialist.**

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.