

June 2013

Northern Wisconsin's Forest Insect & Disease Newsletter

Wisconsin Department of Natural Resources
Division of Forestry

The recent lengthy cool and wet weather has provided ripe conditions for leaf diseases across northern Wisconsin. This is not such horrible news. For good news, forest tent caterpillar hasn't made any headway this year, and the DNR Forest Health team has hired a seasonal forest health worker to help out in the Northwest District.

-Brian Schwingle

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Newsletter Information

Forest Health News Across the Northern Third

Welcome Mary Bartkowiak, Forest Health Assistant for the Northwest District. The Powers that Be have been generous and have hired Mary Bartkowiak for the growing season to help Todd Lanigan and myself cover the Northwest District. Mary will be doing defoliator predictive surveys, ground-truthing aerial surveys, mapping damaged forests, and collecting diseased/infested tree samples. Mary is an extremely capable individual with an excellent attitude. She'll be working closely with Lanigan and myself. Do not hesitate to report forest problems to us, especially now that we have helping hands.

Tamarack Defoliation - Larch Casebearer

Scattered tamarack stands across north-central Wisconsin have light to heavy defoliation from our foreign associate, the Larch Casebearer. Oneida County seems to have the worse defoliation. Defoliation started at the outer base of crowns and worked its way upward giving affected tamaracks a straw to rose color. Fortunately, heavily defoliated tamaracks have started to re-foliate. Mortality can occur if tamaracks are defoliated for 2 or more years. Nothing can be done about this besides monitoring managed stands for cumulative defoliation and regenerating if mortality becomes unacceptable.



Figure 1: Heavy defoliation on tamarack by the larch casebearer, 6/13/2013, Oneida Co. WI.



Figure 2: Close-up larch casebearer damage plus the beginning of re-foliation.

Ash Leaflet Loss - Primarily Anthracnose Other Broadleaves with Fungal Diseases Too

The most common call-in question from our northern Wisconsin citizenry this late spring has been about the problems with ash leaves. Nearly every ash, urban or forest, I've looked at in north-central Wisconsin has some level of anthracnose. In Merrill and Wausau, at least, anthracnose is coupled with ash plant bug damage.

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Other leaf diseases noted on broadleaves (all tentative diagnoses): leaf spot on sugar maples (*Septoria* sp.), marssonina leaf spot on aspens, and leaf blister of red oaks (*Taphrina* sp.).

These diseases have likely done well because of our recent wet and cool weather. They are no concern for forest trees. Regarding ornamentals, my observation is weather is the primary driver for disease, so I question whether any leaf disease control efforts are worthwhile. If a landowner really wants to do something, make the following recommendations:

1. do not allow irrigation water to contact tree leaves
2. do not fertilize trees
3. rake up fallen diseased leaves and destroy
4. thin out canopies via proper pruning to minimize favorable leaf disease environments



Figure 3: Classic fungal leaf disease symptoms on a whole-tree scale—greater severity in the lower canopy.



Figure 4: Ash anthracnose . This disease is common in Wisconsin this year.



Figure 5: Oak leaf blister is starting to show up in north-central Wisconsin. Image by Joseph O'Brien, USFS, Bugwood.org.

Willow Disease in Bayfield County

I just received a report of scattered, severe disease on willows in Bayfield County. I have not confirmed the cause. However, given our recent weather events and photo evidence, I think this is probably willow scab disease. Apparently,

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willow scab is usually coupled with black canker disease. If interested in learning more, read the following links:

<http://plantclinic.cornell.edu/factsheets/willowblackcanker.pdf>

<http://plantclinic.cornell.edu/factsheets/willowscab.pdf>

Spruce Needle Disease on 2011 Needles

Second to ash leaf concerns from our taxpayers this spring were spruce disease worries. I received a lot of calls on this topic about a month ago and investigated quite a few problem spots. All turned out to be *Rhizosphaera* infections on 2011 needles that had not yet fallen off trees. I found no other pathogens present on needles or stems in the field or under the microscope in my humble office space in Merrill. Not only is this disease present on 2011 needles in many ornamental and plantation spruces, but it's also present in understory white spruce saplings in some extensive areas. Age and/or cultivar and/or vigor seemed to determine disease susceptibility.

Thinning out plantations will help minimize this disease. For ornamentals, raise the canopy, thin the canopy out, maintain vigor (e.g. water during droughts), don't fertilize, and destroy diseased branches.



*Figure 6: This white spruce plantation in Lincoln Co. lost most of its 2011 needles and lower canopy due to *Rhizosphaera* Needlecast. I plan on monitoring this plantation to learn if it recovers.*

Insects and the Germann Road Fire

Todd Lanigan sent out a nice document to DNR foresters around 5/16/2013 outlining the insect pests of concern after fires. If you didn't get this document and you're dealing with the Germann Road Fire aftermath, I recommend you contact the experienced Lanigan for it.

I want to highlight two insects in Lanigan's document that forest managers should definitely consider in the fire-damaged area. One is the pine engraver (*Ips pini*). These bark beetles attacked damaged pines shortly after the fire in May

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(probably the week of May 19). A very rough estimate is that the second generation beetle adults will *begin* to emerge from damaged pines in the Germann Road Fire area around July 4. They'll go on to attack living, damaged/stressed pines nearby. Cleaning up as much damaged pine as possible, as soon as possible, will minimize bark beetle damage to surrounding healthy/stressed pines in 2014.

The second pest is the Pales Weevil. This critter's larval stage will feed in fresh conifer stumps in the Germann Road Fire area. Many adult weevils will emerge in 2014. These adults have the potential to destroy a lot of planted seedlings. Therefore, plant conifers in this area on former conifer sites in 2015 to avoid Pales weevils.



Figure 7: How do you know if your pine is infested with bark beetles? Look for boring dust (white arrows), but not after rains!

Mother Oak Wilt Pocket Found North of Tomahawk

Last year I did an aerial survey to attempt to delineate the oak wilt infestation north of Tomahawk. I didn't fly to the south as much as I should have. I recently investigated an infected oak forest a little less than 2 miles north of Tomahawk. Oak wilt had produced spore pads on some trees prior to June 6, 2013 and it had killed 22 oaks. Oak wilt has been at this spot for at least 3 years but perhaps several more years.

Figures 8 & 9: A bark crack produced by an oak wilt spore pad on an oak (left). A degraded pressure pad and fungal mat from the oak wilt pathogen under the bark crack (right). Photos taken north of Tomahawk in early June 2013.



Upcoming Defoliations

Despite our disease-favoring weather this spring, gypsy moth will still likely defoliate many acres in the Bayfield Peninsula. Expect to notice defoliation around July 1. I would be very surprised to not map thousands of acres of spruce budworm defoliation in northeast Wisconsin. The jack pine budworm population in Vilas Co. seems to be on the rise now, but there will not be noticeable defoliation in 2013. I will report to northwestern Wisconsin foresters on predicted jack pine budworm activity there as soon as Mary Bartkowiak starts surveying.

The Rot Room

Welcome to the Rot Room. Come here to keep your white, brown, and canker rots straight. Brown rot is more structurally unstable than white rot. Canker rotters cannot be compartmentalized well, so they are classified by the DNR as “high risk.”

This month we’re taking a break from tree conks to give some recognition to a genus of beautiful decay fungi.

Chlorociboria are the fungi that produce the green to blue-green stained wood on the forest floor. Look down in an oak or aspen forest and I’m sure you’ll see some evidence of *Chlorociboria*. Learn some interesting trivia about *Chlorociboria* at Tom Volk’s [webpage](#).



Odds & Ends

State Property 25-mile Radius for Firewood

—by Linda Williams, June 2013

This [link](#) allows campers to view a map of where the 25 mile radius around state campgrounds/properties is. This is important because campers/visitors are only allowed to bring firewood onto a state owned property if the firewood is all of the below:

1. from within Wisconsin
2. from within 25 miles of the state property
3. from outside of a quarantined area, unless the property is also within a quarantine.

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Or, visitors can bring firewood from a Wisconsin Certified Firewood Dealer. To determine where the 25 mile radius is that wood must come from, you simply go to the above link, select your state trail, wildlife area, flowage, forest, or park; then click GO and the map will pop up. It also includes info like “do not move firewood across state lines” for those state properties near our borders.

Modified State Policy on Annosum

In case you haven't heard, the Wisconsin DNR is treating Annosum slightly different than it has in the past. This new policy started around May 1, 2013. In a nut-shell, any state-owned plantation within 25 miles of a known annosum-infestation will be preventatively treated if thinned between April 1 and November 30. Read the full guide [here](#) and check out the [interactive on-line guide](#). If this is news to you and you are currently screaming and pulling your hair out, please read the guide first to fully understand it. In a way, it is somewhat less restrictive than previous policy. The new policy was developed by many players in the forestry industry.

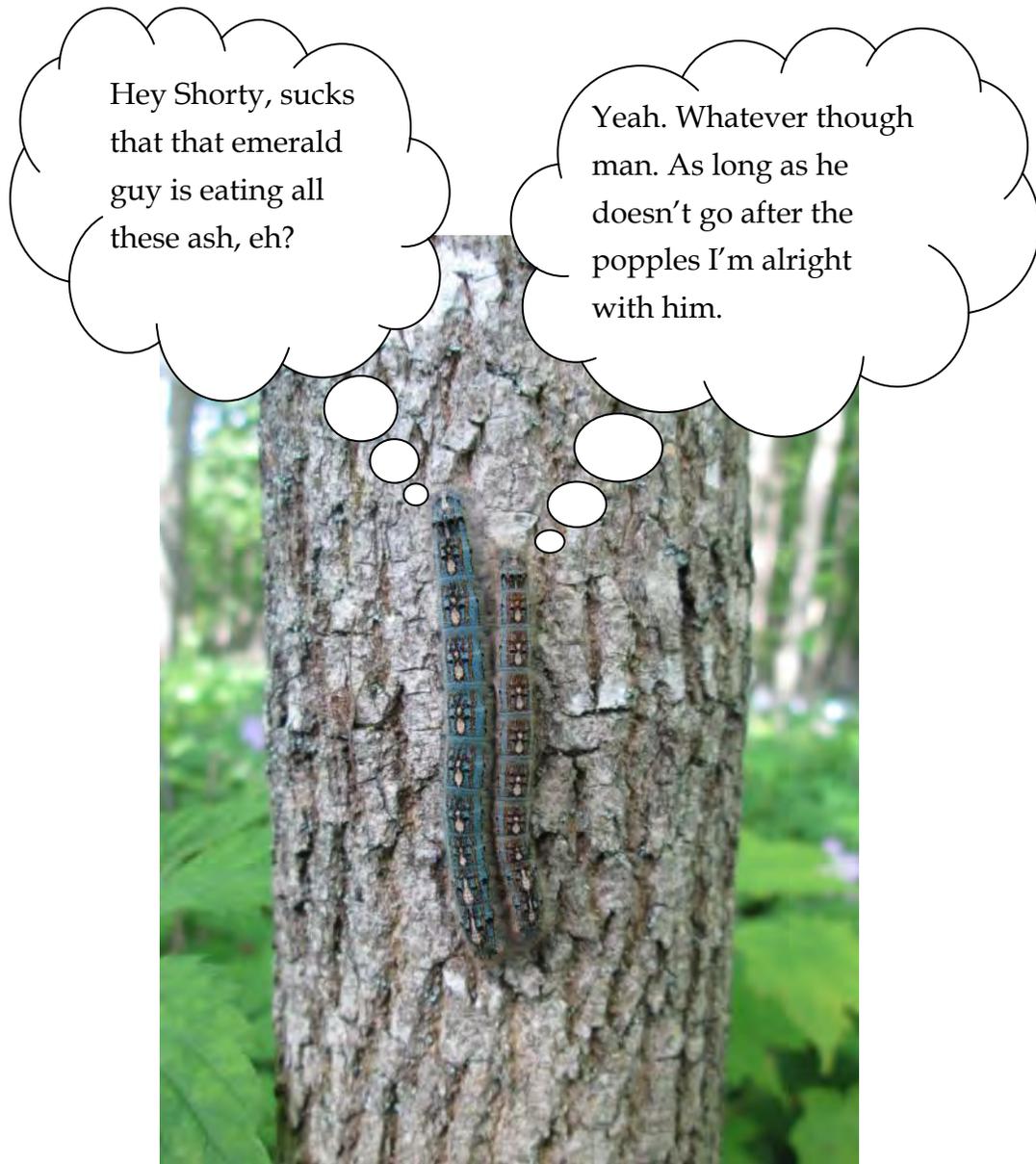
Forest Health Links

- Forest Tent Caterpillar [outbreak prediction](#) in Minnesota
- [Ips behavior](#) the year after wind damage in pines
- A Case Against [Garlic Mustard](#)
- Who do these kids' parents work for?! “[Gypsy Moths All Ova Da Place](#)”
- Reporting Invasive Plant Species in Wisconsin + Be On the Lookout for Himalayan Blackberry ([pages 6 - 7](#) in my counterparts' June newsletter)

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Forest Health Web and Phone Resources

- Insects
 - Invasive Insect [Factsheets](#)
 - [Emerald Ash Borer](#)
 - * EAB Hotline—1-800-462-2803
 - [Gypsy Moth](#)
 - * Gypsy Moth Hotline—1-800-642-MOTH
- Diseases
 - Invasive Pathogen [Factsheets](#)
 - [Annosum](#) Root Rot (Heterobasidion Root Disease)
 - [Oak Wilt](#)
- Plants
 - Invasive Plant [Factsheets](#)
 - [Timing of Herbicide](#) Applications for Planted Trees
- Sick Tree Diagnostic Keys:
 - U. of Minnesota Extension—[What's Wrong With My Plant](#)
 - [Natural Resources Canada](#)—navigate to a tree species to see insects/diseases
 - U. of Wisconsin Extension [Green Industry Website](#)



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Note: This pest report is an informal newsletter and covers forest health issues in the northern 18 counties of Wisconsin. The purpose of this newsletter is to provide forest owners and managers in Northern Wisconsin with regional up-to-date forest health information. I welcome your comments/suggestions on this newsletter *and your reports on forest health problems you observe in your area*. If you would like to subscribe to this newsletter, please contact Brian Schwingle at brian.schwingle@wisconsin.gov. Previous issues of this newsletter and regional forest health updates from other Wisconsin regions are available at <http://dnr.wi.gov/topic/ForestHealth/Publications.html>.