

Northeastern Wisconsin Forest Health Update

Wisconsin DNR – Division of Forestry

September 16, 2013

Topics covered this month:

Insects:

Ash flowergall mite
Aspen blotchminer
Basswood defoliation
Basswood lacebug
EAB new locations in counties already quarantined
Fall webworm

Other:

Branch mortality on Norway maple
Early fall color and dropping leaves
Wild cucumber vines proliferating this year

Diseases:

Annosum guide feedback request
Oak wilt control



Of Historical Interest:

50 years ago - 1953 – pine bark adelgid, and birch leaf skeletonizer
25 years ago - 1988 – aspen blotchminer, and yellow birch dieback

Insects

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

Ash flowergall mite – severe damage from ash flowergall mite in De Pere. These small mites attack the male ash flowers early in the spring. The ash flowers become deformed, giving the mites a home that protects them. As the season progresses these galls (deformed flowers) don't fall off the tree like a normal flower or seed would, instead they turn brown and remain on the tree, often



Severe ash flowergall mite damage. Photo by Don Melichar.

throughout the winter and into spring. This mite and its damage, although it can be very severe, are cosmetic and no control is necessary.

If you recall past updates this year I've mentioned the very heavy seed crop on some trees, probably due to the stress of last year. In the tree shown here, it shows that it wasn't only the female trees that produced lots of flowers this year. You'll also notice that there are relatively few leaves on this tree, which is another side effect we've seen this year when the trees put all their resources into seed/flower/pollen production and little effort into leaf production.

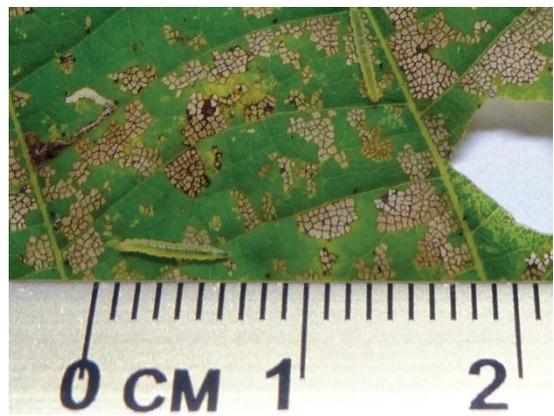
Aspen blotchminer – in the July pest update I mentioned aspen leaf diseases causing some trees to have thin-looking crowns. Shortly after that aspen blotchminer damage started showing up on many aspens in Oconto and Marinette Counties, so in the August update I mentioned that this damage makes the crowns a bit off-color, and the leaves will curl or cup. So now, for the September update, I will say that many young aspen crowns look thin and brown, mostly due to the damage caused by aspen blotchminer. I have been seeing it more on young regen, or young aspen invading new sites or along roads/trails. Older aspen don't seem to be as severely affected. This is a late season defoliator so although it can look bad the effect on the overall health of the trees is negligible.



Numerous mines from aspen blotchminer on the underside of the leaf (above), Left, thin crowns due to aspen blotchminer damage.

Basswood defoliation – we're seeing it again! Do you remember last year in the 9/18/12 edition of my pest update when I wrote about basswood defoliation and how the trees dropped their leaves early? Of course you remember it because you have my pest updates committed to memory don't you?! Uh, yah, not kidding myself with that one. ☺ So anyway, last year by the time we noticed the defoliation we were too late to find the critter that actually did the defoliation but we found some casebearer pupal cases that we suspected might be the culprit.

We were wrong!! This year I was able to find the actual critter. It's a very tiny caterpillar (a micro Lepidoptera) that we suspect is a *Bucculatrix* species, probably *Bucculatrix improvisa*. This is a



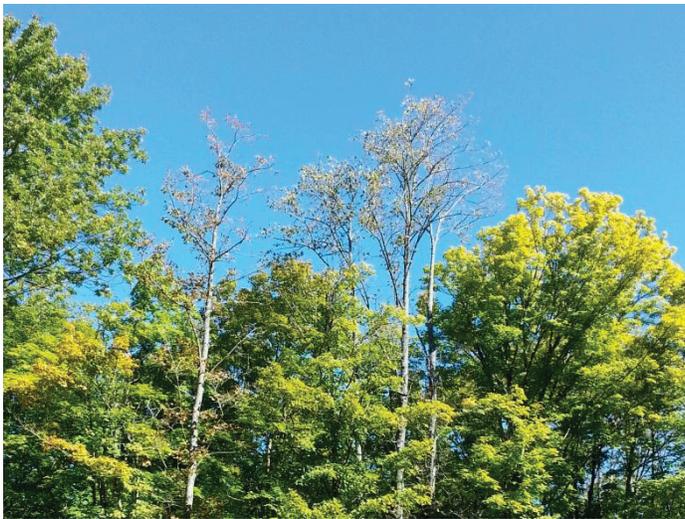
The critter that is defoliating basswood. Probably *Bucculatrix improvisa*.

similar critter to Oak Skeletonizer if any of you are familiar with that species. The tiny caterpillars are “window feeders” which means that they feed on the leaf but leave one epidermal layer on the leaf, which, when held up to the light, gives the appearance of a window with wax paper over it. After enough damage the leaves turn brown and the tree drops them. There are 2 generations of this critter so we’ll have to watch more closely next year to see how much damage the first generation is doing to the leaves.

So where is the damage occurring? Brian Schwingle (Northern WI Forest Health Specialist) and I have seen this in the following counties: Ashland, Bayfield, Florence, Forest, Iron, Langlade, Oconto, Oneida, and Vilas Counties. Although this is the 2nd year of significant defoliation and premature leaf drop on basswood, it is so late in the season that the health effects on the tree should be negligible.



Basswood leaf with significant defoliation, top of leaf (top photo). Same leaf held up to the light looking at it from the underside (middle pic). A close up shot of the window feeding which leaves a network of veins and one layer of cells on the leaf (below)



Significant defoliation causes leaves to drop prematurely on basswood trees.



Basswood lacebug – in most areas the defoliation by the skeletonizer (detailed above) is most prominent, but in some areas the primary damage to basswood is from lacebugs. Typical damage from lacebugs shows up as pale yellow spots on the leaf, with many tiny spots giving the leaf a pale cast, or a dusty look, that is visible from a distance. As delicate as these critters look, it is the adults that overwinter in cracks and crevices in the bark of trees.



Adult lacebugs on the underside of a basswood leaf.

EAB new county quarantines – no new counties quarantined since the past update! The map at right shows currently quarantined counties.

Emerald Ash Borer Quarantined Counties August 2013

EAB new locations in counties already quarantined – In the past month emerald ash borer has been identified in the following areas around the state:

- Fond du Lac County - Town of Osceola
- Milwaukee County - City of West Allis
- Waukesha County - City of New Berlin
- Waukesha County - City of Waukesha



Fall webworm - webs are of fairly good size in trees now. Fall webworm does most of its damage late in the season, when the tree is preparing for fall, so people should not be too concerned about this defoliation. It can be an ugly messy web nest that the insects create but it's not something that will kill the tree. If it's just too ugly to look at I recommend tearing it down with a rake, there is no need to prune out portions of your tree just to get rid of the webs as this does more damage to the tree than the insects themselves would do, likewise, burning them out with a flamethrower is also overkill.



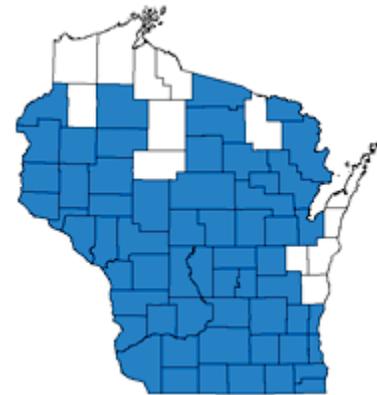
Fall webworm nests.

Diseases

Annosum guide feedback request – I posted this annosum blurb in the August update but since I didn't get any comments I thought it was worth posting again, just in case someone has some feedback: The annosum guide was implemented on May 1, 2013. How is it working in the field? Please let us know if you have run into any issues or concerns related to using the guide. It's very important for us know what the issues are in the field, so we can make adjustments for improvement. And of course, if you have positive feedback about the guide you're welcome to share that as well. ☺ The 25-mile buffer map was recently updated to reflect newly confirmed stands. Although buffers were slightly altered, townships that are within the buffers are unchanged. The updated map is posted on the WI DNR annosum page at <http://dnr.wi.gov/topic/ForestHealth/AnnosumRootRot.html> just select the link on the right side of the page in the Annosum Root Rot Guides box.

Oak wilt control – fall is a great time of year for landowners who want to do oak wilt control. Please keep in mind, and remind the landowners you work with, that to stop oak wilt you must do something about the root systems, not just cut the trees. Simply cutting the trees that died and a ring of healthy trees outside of that does NOT stop the fungus and will not stop the pocket from continuing to expand. Actions that address the root system include trenching, uprooting, and herbiciding.

For oak wilt control options (trenching), check out the document Lake States Woodlands Oak Wilt Management <http://learningstore.uwex.edu/assets/pdfs/G3590.pdf> or if you or a landowner are interested in trying to use herbicide to control oak wilt we do have some protocols that we can suggest, although this method of oak wilt control has not yet had the vigorous testing and trials that trenching has.



Other/Misc.

Branch mortality on Norway maples – in the August update I posted the following info:

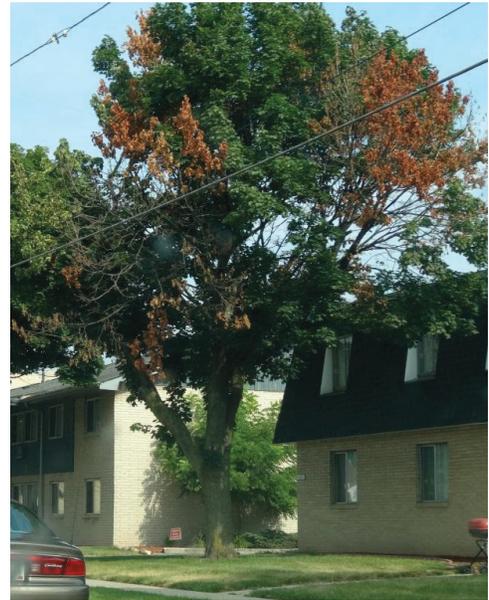
have you been seeing this sudden branch mortality on Norway maple? The rest of the crown is often normal and healthy looking but one branch will suddenly wilt and die with the leaves remaining on it turning a rich rusty red color. So far I have seen this in Green Bay, Howard, Allouez, Oconto Falls, and Lena. If you have seen this in your area please let me know. Samples have been sent to Brian Hudelson (Plant Disease Diagnostic Clinic) for testing but have not turned up anything yet. I've



sent some additional samples, so maybe something will still show up but at this time we're attributing it to drought stress and/or girdling root issues.

After that update I did get a couple more reports, so the current list of locations is: Allouez, De Pere, Green Bay, Howard, Lena, Peshtigo, Oconto Falls, Oshkosh, Wausaukee, which equates to the following counties: Brown, Marinette, Oconto, and Winnebago Counties. Is anyone else seeing this type of branch dieback? Let me know.

Early fall color and dropping leaves – fall is coming! There's no doubt about it. But some trees are turning color for reasons besides the season. There are a variety of things occurring right now depending on the species of tree:



- Ash – trees with heavy seed crops are looking yellow as the seeds mature and turn yellow. Some stressed trees are dropping leaves earlier than normal.
- Basswood/Linden – a heavy seed crop that is maturing and dropping is causing these trees to look yellow. The seeds, and the samaras (wings) will turn yellow and drop, giving the appearance that the tree is dropping a massive amount of leaves. Additionally, a basswood skeletonizer (details above) is causing the leaves of some trees to drop prematurely.
- Elm – trees dying from Dutch elm disease will turn yellow and drop their leaves.
- Maple – moisture stress causing some to turn red early. Urban trees that have girdling roots may turn color or drop leaves from the top portions of the tree in response to moisture stress
- Oak – oak wilt causes tree to drop leaves suddenly.
- Poplar species and birch – moisture and heat stress are causing these trees to purge some of their oldest leaves, which are turning yellow and will drop off.
- Willow – defoliation by willow leafminer is severe on some trees, causing the tree to drop those leaves that are most damaged and giving the remainder of the tree a brown/tan cast.

ID Tools online - USDA-APHIS has created a page with links to an assortment of ID Tools to help folks quickly identify pests, including insects, diseases, harmful weeds, and more. Although many of you won't use anything on this page <http://www.idtools.org/> there are undoubtedly a few of you out there who will love perusing this site and checking out the assorted ID links.

Wild cucumber vines proliferating this year – from Tom Boos. This year, more than most, you may have noticed a flowering vine draping itself across the roadside vegetation like white netting. We’ve been receiving numerous calls and emails this month regarding this previously unnoticed roadside specimen. The vine gaining so much attention this year is wild cucumber, *Echinocystis lobata*. A native annual vine, it seems to be responding well to this year’s odd weather patterns. From a distance, you’ll notice the vibrant green foliage and erect, white clusters of flowers. These tiny flowers have a wonderful fragrance. Later in the season, distinct round “cucumber” fruits covered in dense spines will hang from the vines.



Wild cucumber leaves and flowers. Photo by Tom Boos.

Of Historical Interest

60 years ago, in 1953 –

- Pine Bark Louse (*Pineus strobi*) – This pest remained at a high level in all areas but damage was noticeable on seedling stock only except in some isolated cases where trees up to 12 feet were killed. (note – this is usually called Pine Bark Adelgid nowadays).
- Birch Leaf Skeletonizer (*Bucculatrix canadensisella*) – Defoliation by this insect became apparent over the entire state late in the summer.

25 years ago, in 1988 –

- Aspen Blotchminer – *Phyllonorycter tremuloidiella* (Braun) – The populations that erupted to high levels across northern Wisconsin in 1987 collapsed in the northwestern counties but continued to cause scattered heavy leaf damage in Oneida and Vilas counties.
- Yellow Birch Dieback – Unknown. Yellow birch continues to show symptoms of dieback in Florence and Menominee counties, north-central Wisconsin. Affected trees have thin crowns and twig and branch dieback. Mortality of yellow birch is scattered throughout the properties. Dieback in Rusk County continued at approximately the same

incidence as in 1987. Yellow birch has not been a significant component of hardwood stands in northwestern Rusk County and has now been virtually eliminated due to dieback and mortality. A team of forest managers, a silviculturalist, and a forest entomologist developed recommendations for harvesting declining yellow birch. They are as follows:

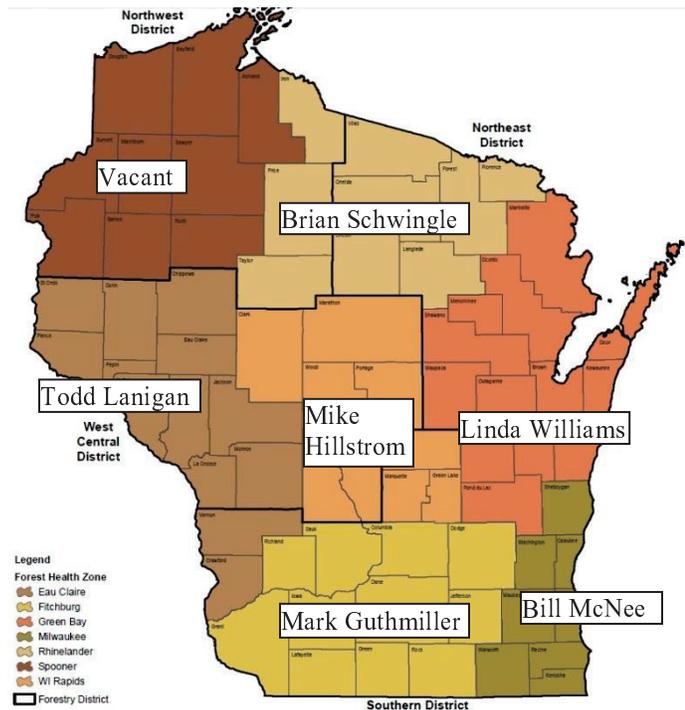
| Crown Condition | Recommendation |
|---|--|
| <ul style="list-style-type: none"> Less than 25% live crown | Harvest as soon as possible |
| <ul style="list-style-type: none"> More than 25% live crown with Smooth bark (young vigorous trees) | Carry one log trees to 16" dbh then harvest Carry two log trees to 18" dbh then harvest |
| <ul style="list-style-type: none"> Any crown condition on rough bark (old and poor vigor) trees | Harvest as soon as possible to avoid any further loss in value |

Note: Management objectives and residual basal area may be a reason to modify these recommendations.

Contact Us

Forest Health Staff - contact info for each Forest Health Specialist can be found our webpage at <http://dnr.wi.gov/topic/ForestHealth/staff.html>

Report EAB:
 by phone 1-800-462-2803
 by email DATCPEmeraldAshBorer@wisconsin.gov
 OV



visit the website <http://emeraldashborer.wi.gov/>

Report Gypsy Moth:

by phone at 1-800-642-6684

by email dnrfrgypsymoth@wisconsin.gov

visit the website <http://www.gypsymoth.wi.gov/>

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

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.