

Northeastern Wisconsin Forest Health Update

Wisconsin DNR – Division of Forestry

August 31, 2015

Topics covered this month:

Insects:

Aspen blotchminer
Barklice
EAB new finds in WI
EAB news
Fall webworm
Gypsy moth
Scarab beetle in firewood or rotting logs
Spruce budworm document
Spruce gall midge
Willow flea weevil

Other:

Storm damage to forests

Diseases:

Dutch elm disease
Oak wilt in Town of Conover, Vilas County
Red pine needle browning

Of Historical Interest

25 years ago - 1990 –
 Fall cankerworm
 Twolined chestnut borer
60 years ago - 1955 –
 Saratoga Spittlebug
 Yellow-headed spruce sawfly

Insects

Aspen blotchminer – symptoms of aspen blotchminer include crowns that appear thin, leaves appear off-color from a distance, “blisters” on the underside of the leaf, and eventually curling and browning of the leaves. This is the 4th year in a row that I’ve noticed defoliation. This year, similar to past years, I’ve seen it in Oconto, Marinette, Florence, Forest, Oneida, and Vilas Counties. The defoliation can be severe but aspen generally handles the defoliation well, and I’ve seen some aspen sending out new leaves that are not affected. So



Aspen blotchminer damage on aspen.

although it can look bad the effects on the overall health of the trees seem to be negligible. Tiny larvae spend their entire life feeding within the leaf and pupate within the area that they mined out. Moths emerge in August and spend the winter in a protected place.

Barklice – additional reports have come in since my last pest update where I noted reports from Manitowoc, Shawano, and Waupaca Counties. I’ve gotten additional reports, or found some myself, in Door, Kewaunee, Oconto, and Outagamie Counties. My counterparts throughout the state have also been getting calls. At this time of year you’ll probably see more adults (with wings) than immatures. Even though the adults have wings they still move as a group, like those videos you see of large groups of starlings in flight that all move and change direction at the same time. Barklice don’t bite, they don’t spread disease, they’re not a true lice, and they don’t do damage to the tree, so there’s no reason to kill them that I can see.



Barklice adults.

EAB new finds in WI - In the past month emerald ash borer has been identified in the following areas around the state:

New County Quarantines:

- Jackson County – EAB found in Black River Falls
- Marquette County – EAB found in the Town of Montello

New finds in Counties already Quarantined:

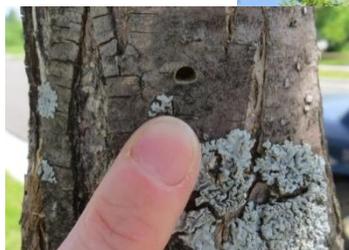
- Richland County – Town of Dayton
- Rock County – City of Edgerton
- Waukesha County – Town of Delafield



EAB quarantined counties in red.

EAB news – the Proceedings from last Fall’s EAB National Research and Technology Development Meeting are now available [online](#). There are lots of great updates included in the Proceedings so take a moment to check it out.

In other news, Olivia Witthun, the WI DNR Regional Urban Forestry Coordinator out of Plymouth, recently shared some photos of a Leprechaun Ash that had ash flowergall damage, was being attacked by native borers, and was being attacked by EAB. The tree was still



Leprechaun ash with ash flowergalls (above) and EAB exit hole (left).

alive, with a healthy looking crown, but she did find galleries and exit holes of EAB on the tree. Leprechaun ash is a dwarf variety of green ash, which is susceptible to EAB.

Fall webworm – Mike Hillstrom, Forest Health Specialist out of Wisconsin Dells, recently checked out 5 acres of forest in Monroe County that was totally webbed. He discovered that Fall Webworm was the culprit. I've never seen webbing from Fall Webworm like this before and wanted to share one of the pics that Mike took. Wow! For most of us, we're probably seeing less of a problem. Fall webworm does most of its defoliation later in the season, when the tree is preparing for fall, and the defoliation will not kill the tree. Homeowners who want to get rid of the web can tear it down



Extensive webbing and defoliation due to Fall Webworm (this is not what you would normally see). Photo by Mike Hillstrom.

with a rake and soak the whole thing in a bucket of soapy water to kill the caterpillars. There is no need to prune out portions of your tree just to get rid of the webs. Pruning out the branch that the web is on actually does more damage to the tree than the caterpillars themselves would do; likewise, burning them out with a flamethrower is considered overkill.

Gypsy moth – information on the gypsy moth spray program (guidelines and application) has been updated for 2015. If your county is thinking of applying, please check out [this link](#). There will be one training session held this year for counties interested in the aerial spray cost share program on September 15 in Fitchburg. Contact [Mark Guthmiller](#) for more information about the training session. Who should attend this session? Anyone who may be involved in the suppression program, particularly: county suppression coordinators, municipal foresters, town clerks or other municipal representatives, volunteers, DNR property managers, and consulting arborists or foresters who may be hired by county or local officials. If your county or community is considering participating in the program but has not yet decided, this training session may answer many of your questions.

Scarab beetle in firewood or rotting logs - large C-shaped white grubs that are found in rotting stumps or the base of trees with decay are usually the larvae of a scarab beetle (*Osmoderma sp.*). The adult beetles, which resemble beefed-up June beetles, are one of the larger insects in Wisconsin. They are harmless but their size is impressive. Pupal cases are shaped like small grenades. There is sometimes a strong odor of leather when an adult is captured which leads to one of their common names: "leather beetle." They are also called the Hermit Beetle although I

have no idea why. Most commonly I will find this insect inside oak trees with rotten centers. The larvae feed on decaying wood and complete their lifecycle within the tree.



Hermit beetle larvae are large white grubs (above left) that feed on decaying wood. Above right, several larvae discovered while splitting firewood.

Spruce budworm document – a document has been created that can be handed out to homeowners and landowners about spruce budworm. Topics include the damage it causes, and some management and control options that can be considered. If you are getting my pest update directly, then you received the spruce budworm document in the same email. If you are reading this online you can [email me](#) for a copy.

Spruce gall midge – a severe infestation of spruce gall midge was observed on numerous Black Hills spruce in Door County. These tiny larvae feed at the base of developing needles in the spring, and the feeding prompts the tree to grow around the larvae, swelling as the larvae get larger. The tips of the twigs often die from the damage caused by spruce gall midge. Pruning off the damage in the fall can help reduce the population as the larvae overwinters inside the gall. A small parasitic wasp attacks the larvae and often provides adequate control of a population. Apparently the damage doesn't usually kill a tree, but for the trees I saw in Door County, where almost every bit of new growth was dead from spruce gall midge, their growth will be impacted as will their form.



Above and left: Spruce gall midge damage to terminal ends of branches.

Willow flea weevil – for the 2nd year in a row, damage from willow flea weevil is showing up in Brown, Calumet, Marinette, Shawano, and Oconto Counties. Willows are turning brown due to the leafmining and feeding damage from larvae and adults. Damage is severe enough that the trees appear brown and “dried up” from a distance, although they’re not dead. Adult weevils are tiny black weevils that tend to “rain down” out of the tree onto your head when you disturb a branch. Defoliation starts with the immature stage of the weevil, a tiny grub that feeds inside the leaves, mining out leaf material and leaving dead brown blotches. The larvae pupate and the adults emerge to feed on the leaves as well, leaving tiny round feeding marks. The adults will overwinter and emerge in the spring to feed on the opening buds and new leaves.



Willow flea weevil damage from larvae which are leafminers.

Diseases

Dutch Elm Disease - symptoms, including whole tree yellowing and wilting have been occurring this summer, and continue into this fall. This exotic fungal disease is spread by the elm bark beetle and can spread underground through root grafts as well. Since bark beetles are generally not attracted to smaller trees (sapling to small pole size) people often get their hopes up that their small elms have “escaped” and will survive and grow to maturity. Unfortunately, as soon as the trees are large enough for the bark beetles to be attracted to them the trees may become infected with Dutch elm disease. The first symptom you will see is usually a single branch on which the leaves turn yellow and die. The rest of the tree will die shortly after. Elm trees attempt to fight the fungus by walling off the portion of the tree where the fungus is located but this can lead the tree to self-induced water deprivation and death.

There are some disease resistant cultivars (those crossed with other elm species) and some disease “tolerant” cultivars of American elm which tolerate the disease without completely killing themselves.



Tree being affected by Dutch elm disease. Some branches already wilted and dead (red arrows), other branches have yellowing leaves (yellow arrow).

Oak wilt, Town of Conover, Vilas County – a new spot of oak wilt was identified in Vilas County in the Town of Conover. One large oak tree appeared to have died last year, and one large oak was actively wilting in August. The first oak had been injured the previous spring

when a road was put in for a timber sale. This location was 8.4 miles from the closest known oak wilt infection.

An aerial survey for oak wilt in Vilas and Oneida Counties was also recently completed and I'm in the process of ground truthing a few dead trees we saw from the air. Oak wilt is still uncommon in Vilas and Oneida Counties, so it's important to know where the infections are.

Red pine needle browning – some of you have noticed 1- and 2-year old needles on pole and sawtimber red pine turning ½ brown, while remaining on the tree as a normal needle would. I'm seeing it on trees that are not near roads (so it's not salt damage), and symptoms can usually be found throughout the stand/plantation. This is occurring in Florence, Oneida, and Vilas Counties, and perhaps others as well. I sent in some samples for testing and the only thing that has come back so far is *Diplodia*, and an unknown spore that was on 35% of the symptomatic needles. *Diplodia* was definitely a problem on current year needles this year, and hopefully I'll be able to give you more information in the months ahead as to what is causing the browning of the older needles. I've submitted some additional samples, and will collect more. I'm inclined to say that this is somehow related to winter damage, but I'm just not sure yet. If you're seeing this in the counties that I cover (see map below) please let me know.



Red pine needles. Older needles are 1/2 to 3/4 brown, with the base remaining green.

Other/Misc.

Storm damage to forests – did you know that there is a page on the DNR website that provides lots of info for landowners with storm damage to forests? It includes topics like what to do first, pest problems, wildfire concerns, brush disposal, etc. Check it out at this [link](#).

Of Historical Interest

25 years ago, in 1990 –

- **Fall Cankerworm** – *Alsophila pometaria* (Harris) This spring defoliator of oak and other hardwoods had been at outbreak levels since 1985 in Columbia, Sauk and Marquette counties. The outbreak collapsed in 1990 with no defoliation reported.
- **Twolined Chestnut Borer** – *Agilus bilineatus* (Weber) Oak mortality increased in northwestern Wisconsin after two years of drought stress made them susceptible to attack by this inner bark borer. Especially hard hit were Polk, Burnett, Washburn, Sawyer, Douglas, Bayfield and St. Croix counties in northwest Wisconsin. Oak mortality

by phone at 1-800-642-6684
by email dnrfrgypsymoth@wisconsin.gov
visit the website <http://www.gypsymoth.wi.gov/>

Northeast Region Pest Update produced by:

Linda Williams
Forest Health Specialist
Wisconsin Department of Natural Resources - Northeast Region
Linda.Williams@wi.gov
<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.