

Northeastern Wisconsin Forest Health Update

Wisconsin DNR – Division of Forestry

March 18, 2014

Topics covered this month:

Insects:

Cynipid wasps in swamp white oak bark
EAB new finds in WI
EAB, woodpecker food
Insects in the news

Diseases:

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Oak wilt dates
Oak wilt fungus in woodchips

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Of Historical Interest:

60 years ago - 1954 –

- Pine budworm
- Pine tortoise scale

25 years ago - 1989 –

- Birch leafminer
- Bronze birch borer



Adult lacebug. It's head is pointing → direction.

Insects

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

Cynipid wasps in swamp white oak bark – some swamp white oak trees infested with cynipid wasps that bore just into the bark, are now being stripped of the outer bark layers by woodpeckers searching for food. The cynipid wasps are very small (~3mm long), and the immature grubs are also tiny. But, based on the level of woodpecker activity on some trees, it must be a good source of food. These wasps only inhabit the bark, not the cambium, and most of

the woodpecker activity is limited to the outer layers of bark, unless they get a bit over zealous and punch through to the cambium. I suspect that the trees will be fine, just a bit pale. Reports and samples have been from Appleton this year, and from Green Bay 3 years ago.



Woodpecker damage on swamp white oak branches. Small pits are where cynipid wasp larvae were, before the woodpeckers got them.



Cynipid wasp adults from a swamp white oak branch. Larvae can be seen in the pits in the upper right corner of the pic.

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:

None

New finds in Counties already Quarantined:

- Ozaukee County - Town of Cedarburg
- Ozaukee County - Town of Grafton
- Ozaukee County – Village of Grafton
- Ozaukee County - Town of Port Washington
- Racine County - Town of Raymond
- Rock County – Town of Avon, Avon Bottoms State Wildlife Area
- Walworth County - Village of Bloomfield
- Walworth County - Town of Delavan

EAB, woodpecker food – even though the EAB population remains fairly low in Green Bay, due to the city’s aggressive tree removal, treatment, and monitoring program, the woodpeckers have already identified EAB larvae as a food source! Sometimes it requires large EAB populations in an area before woodpeckers learn that they are a food source. But in Green Bay, trees with low to moderate EAB populations are being identified by the woodpeckers. These infestations (and woodpecker damage) are still limited to the crown of the tree, with no visible signs from below. Check out the following pictures of woodpecker damage from the Green Bay area.



Woodpeckers remove bark from ash trees to get to emerald ash borer larvae. In heavy EAB infestations the woodpeckers will strip the outer bark off most of the tree, giving it a pale appearance.

Some additional insect articles that might interest you:

- The polar vortex and insect survival and mortality
<http://qz.com/183314/stop-hating-the-polar-vortex-its-killing-some-of-the-nastiest-invasive-insects-around/>
- Asian longhorned beetle more successful in red maple
http://www.na.fs.fed.us/nanews/nastories/20140109_ALB_Study.pdf
- Mountain Pine Beetle out west, outbreak declining, killed off most of host
<http://thinkprogress.org/climate/2014/02/18/3304951/beetle-epedemic-2013/#>
- Spruce beetles in the west
<http://denver.cbslocal.com/2014/02/14/forest-survey-spruce-beetles-on-march-in-colorado/>
- EAB and woodpeckers <http://news.uic.edu/emerald-ash-borer-may-have-met-its-match>
- Southern pine beetle causing pine mortality in New Jersey:
<http://www.nytimes.com/2013/12/02/science/earth/in-new-jersey-pines-trouble-arrives-on-six-legs.html?pagewanted=1&r=3&src=un&feedurl=http://json8.nytimes.com/pages/national/index.jsonp&>

Diseases

Beech Bark Disease precautions updated – if you are moving beech logs or firewood, check out the updated recommendations for movement of wood. The basics are below, with more info in the full document <http://dnr.wi.gov/topic/ForestHealth/documents/BeechScalePrecautions.pdf>

Beech Firewood

To avoid accelerating the spread of the beech scale and thus beech bark disease, inspect beech firewood before moving it and use the following guidance:

1. Does the firewood have white ‘wool’ on the bark? Beech scales are covered in white cottony fibers that are easily seen on the smooth, grey bark of beech. See Fig 1.
 - a. Yes—go to 2.
 - b. No -You may move beech firewood
2. Is the bark loose?
 - a. Yes – You may move beech firewood
 - b. No – Leave firewood to age near where it was cut for one year so the scale insects die.



Beech Logs

Because beech scale has been found across the range of beech in Wisconsin, precautions to prevent its long distance spread on logs bound for processing into non-firewood products are no longer significantly helpful and are not required.

Oak wilt dates – winter is hanging on. Can you safely extend the dates for harvesting on timber sales with oak wilt restrictions? Here’s the info on how we determine whether the oak wilt restriction dates can be changed or need to hold firm:

- If you have four or five days of nice, sunny days with little wind chill and temps 55 to 60 degrees ... then the insects will emerge and the risk is present. The difference (4 or 5 days) is dependent on whether those days are just at 55 degrees, needing more like 5 days before insects would emerge, or if you have 60 degree temps or warmer, which will cause the insects to emerge more quickly (4 days).
- Even with the snow on the ground now it’s thoroughly possible that in another couple weeks we will have those 50 degree days, which would mean that the April 15 date in the north is solid (or April 1 for counties in the “south”, green on attached pic).
- When experiencing an unusually cold spring, how long cutting is allowed beyond April 1 (in the southern counties) or April 15 (northern counties) will be up to the comfort level of the landowner/property manager based on the weather situation and relative importance of completing harvesting. Since the stumps will be susceptible for up to 72 hours after cutting, you need to



make sure that it will be unlikely for the insects to start flying for a few days after cutting.

An example of when you might want to start the cutting restrictions earlier than April 1/April 15:

If you have 4-5 days of 55 degree weather prior to April 15/April 1, similar to the spring of 2012 when we had very warm temps in March.

Justification for varying from the guidelines needs to be documented and included into the normal approval process for harvesting (i.e. form 2460-001 (timber sale and cutting report) for public lands and on form 2450-032 (cutting notice) for MFL lands. Documentation is the responsibility of the landowner/property manager.

Oak wilt fungus in woodchips – can you spread oak wilt if you chip a tree that was infected and killed by oak wilt recently (within one year) and then put the chips around other oaks? The answer, from Jenny Juzwik, USDA FS researcher: The risk level of the survival of the pathogen on/in chips and formation of fungal mats on infected chips depend on moisture and temperature of chips. Once temperatures of chips exceed 85-90F, the pathogen is unlikely to survive. In addition, the pathogen dies when chips dry



out. Furthermore, the pathogen is a weak competitor, and can be easily outcompeted by other microorganisms on chips. Thus, although there is no scientific literature that describes the level of risk of transmitting the disease from wood chips to healthy oaks, in general wood chips from infected trees are unlikely to serve as a source of disease inoculum. As an added precaution, it would be prudent to not use the chips that were just chipped out of trees killed by oak wilt recently, but if chips were made in the fall and they are used in the spring or so, it should be fine to be used for landscaping. Dr. Jenny Juzwik, USDA FS researcher

Other/Misc.

Garlic mustard pub available – the USDA FS has produced a document on garlic mustard that is now available online. It includes basic biology and impacts, as well as detailing the various insects that are undergoing testing to potentially be used as biocontrol agents. It also has a section on current control methods including herbicide use. Check it out at http://www.fs.fed.us/foresthealth/technology/pdfs/GarlicMustardBiocontrol_FHTET-2012-05.pdf

Imprelis contaminated materials allowed in landfills for 2014 – Imprelis, a weed control chemical previously produced by DuPont, caused a significant amount of unintended tree mortality even when properly applied. It was available only to professionals, not over the counter. Materials affected by Imprelis, including the wood/branches of trees killed by Imprelis have been shown to contain enough Imprelis to have continuing impacts if that wood is then used around other plant material (for instance if used as woodchips).

Wisconsin has made a special exemption to allow Imprelis contaminated materials into landfills. This order continues for 2014. Below is a portion of a letter sent out to all Municipal Solid Waste Landfill Operators recently:

There is evidence that Imprelis® may persist through composting and that compost and mulch containing Imprelis®-affected trees, grass, and other yard materials may adversely affect plants where the compost or mulch is used. DuPont has stated that clippings from grass treated with Imprelis® and trees that may have been injured by Imprelis® should not be composted. Therefore we believe there is a short-term need for an alternative option for disposing of trees and plant material that may contain residues of Imprelis®.

This letter is to inform you that the Department of Natural Resources will continue to allow the landfill disposal of trees and plant material affected by Imprelis® for calendar year 2014. This extends the temporary, limited exception to our enforcement of the yard material landfill ban in s. 287.07(2), Wis. Stats., that we issued two years ago. Materials not affected by Imprelis® remain subject to the ban.

If you have any questions about this you can direct them to Brad Wolbert (Brad.Wolbert@wisconsin.gov, 608-264-6286)

Oriental Bittersweet – before you toss out that Christmas wreath, does it have Oriental Bittersweet berries mixed in for decoration? Oriental bittersweet is often used in holiday decorations and flower arrangements, but this vine can be an aggressive invader of forests if allowed to escape. Learn to distinguish the exotic invasive Oriental bittersweet from the native American bittersweet in a new document from Minnesota titled What Do The Holidays And Invasive Species Have In Common <http://www.myminnisotawoods.umn.edu/wp-content/uploads/2011/08/gupta.chandler.2013.UMN-Extension.oriental-bittersweet.v1.1.pdf>

Wisconsin guide to transport and disposal of ash – ever wondered if you need a compliance agreement to be able to move ash logs or firewood? Ever wondered what a compliance agreement actually requires you to do or how to get one? Check out the document The Detailed Guide to Wisconsin's Regulations on Transport, Utilization and Disposal of Ash Wood. <http://datcpservices.wisconsin.gov/eab/articleassets/Guide%20to%20WI%20ash%20wood%20transport%20utilization%20and%20disposal%20regs.pdf>

Of Historical Interest

60 years ago, in 1954 –

- **Pine Budworm** – *Choristoneura pinus* (Free.) And outbreak of approximately 20,000 acres is present in Washburn and Douglas Counties. The epidemic is developing in mature stands of jack pine and most of the damage is confined to the smaller diameter classes and to the reproduction in these stands. In Marinette County a budworm infestation of 8,900 acres is attacking stands of variable stocking and age classes. Losses from outbreaks in Washburn and Marinette Counties have been light; mortality has been in the two-inch and reproduction classes. The outbreaks are expected to increase in intensity in 1955.

- **Pine Tortoise Scale** – *Toumeyella sp.* This pest continued to increase in Oconto, Marinette and Florence Counties. Aerial and ground surveys were conducted to determine extent of infestation. An experimental spraying was conducted on 1,200 acres of the more heavily infested areas. Losses were estimated at close to 500 acres. Host – Jack Pine. Heavy infestations covering small acreages of natural stands were reported in the Gordon area in Douglas County and north of Hayward in Sawyer County. A September survey in Vilas County disclosed a light infestation of the scale over 1,100 acres in 6 to 15-year-old plantations in the Conover area and another light infestation of 1,200 acres in the Big Flats area of the Northern Highland State Forest. Other moderate to heavy infestations occurred in Outagamie, Waupaca, Clark, Eau Claire, Langlade and Sheboygan Counties.

25 years ago, in 1989 –

- **Birch Leafminer** – *Fenusa pusilla* (Lepelletier) Extremely heavy browning of ornamental birch foliage occurred in scattered locations statewide. Noticeable mining of white birch in forest stands occurred in several northern counties.
- **Bronze Birch Borer** – *Agrilus anxium* (Gory) Mortality of ornamental birch was common statewide. Heavy mortality of forest-grown white birch occurred in many areas in the northwestern and west central counties.

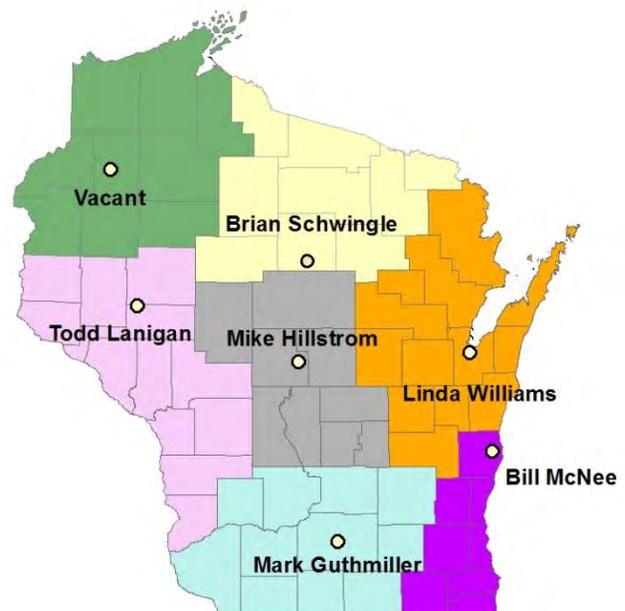
Contact Us

Forest Health Protection Regional Staff

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
 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/>

Northeast Region Pest Update produced by:

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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.