

Western and Central Wisconsin Forest Health Report – July 2015

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Dear Reader,

Thank you for your input! Earlier this year we asked you to complete a survey to provide feedback regarding the Forest Health Regional Newsletter updates you receive. The information you shared was extremely valuable to our team. As we continue to explore how to best serve you with these publications, we are carefully considering your input and the options available. We do not intend to change the way you receive these newsletters, or their format or frequency this year. We just wanted to send a belated and heartfelt thank you for sharing your time and thoughts with us. Stay tuned for more information about any improvements to your Forest Health Regional Newsletter Updates this winter.

Arthropods Lecanium Scale

Have you noticed little red/brown bumps on your oaks this year? The culprit is an insect called lecanium scale. Outbreaks of this insect occur periodically in Wisconsin but are typically controlled by natural enemies (ladybird beetles, parasitic wasps, fungi). Heavy populations of scales may result in dieback of infested branches but tree mortality is unlikely. No management is typically needed in forest stands. On yard trees, target crawlers (young scale insects) in May and June (monitor with sticky cards). Horticultural oil is a good treatment option but getting good coverage on large trees may be difficult. Another option is to use systemic insecticides this fall or next spring to protect trees. Scale insects, like aphids, produce honeydew that may result in sooty mold growing on impacted trees. Prevent sooty mold by rinsing the honeydew off with a garden hose.



Photo 1. Lecanium scale insects on an oak twig.

Spruce Budworm (By Linda Williams)

Widespread spruce budworm defoliation is evident in a number of counties in the north. Defoliation is severe in many areas, although it can still be patchy within a county. Northern Marinette and Eastern Florence Counties are suffering their fourth year of significant defoliation from spruce budworm. Insects don't recognize borders so the Upper Peninsula is also dealing with continued defoliation.

Periodic outbreaks of this native insect occur every 30-50 years, with outbreaks lasting 10 years on average. Our last outbreak ran from 1970-1980. Mature balsam fir and spruce are the primary targets, although younger balsam or spruce can be defoliated as well. Repeated defoliation can cause top-kill and eventually whole tree mortality. Balsam fir stands, or stands with a heavy component of balsam fir, are often more severely impacted ... but ... don't let that fool you into thinking it won't defoliate pure spruce stands.

Forest managers should monitor mature balsam fir (60+ years old) and spruce (70+ years old) stands for signs of repeated defoliation and top-kill. After 3 years of significant defoliation (or additional years of lighter defoliation) you will start to see top mortality, and you should think about salvage harvests. If the trees are missing more than 75% of their needles, they should be salvaged. Or, if the stand has been heavily defoliated for more than 3 years including the current year, it should be salvaged.

Homeowners with just a few spruce or fir that they want to protect can treat those trees with insecticide. Bt will work on the caterpillars, but they are done for this year. So concerned homeowners should prepare themselves to spray next spring when the caterpillars start feeding as buds begin to break. Landowners can water impacted trees during dry periods to help maintain tree health. Defoliation is often most severe in the upper portions of the tree, so homeowners need to plan accordingly when spraying their trees and be sure the entire tree gets sprayed.



Photo 2, 3. Spruce budworm defoliation in NE Wisconsin in 2015.

Larch Casebearer

Larch casebearer is present defoliating tamarack again in 2015 but the trees are not turning brown like they did in 2014. We suspect this has to do with the abundant rainfall this year and possibly to mortality of the caterpillars caused by multiple spring frosts.

Jack Pine Budworm

Lanigan - Larval surveys were conducted in Dunn, Eau Claire, Jackson, Monroe, Pierce and St. Croix counties. Only one caterpillar and one cocoon were found; both in Eau Claire County. The caterpillar was found in jack pine off of Horse Creek Road and the cocoon was found in jack pine off of Channey Road. No defoliation was observed in any of the counties surveyed.



Hillstrom - Visually defoliation surveys were conducted in jack and red pine stands in Adams, Clark, Juneau, Marquette, Portage, and Wood counties. No defoliation was observed.

Cigan - Light to moderate, patchy defoliation occurred in Washburn, Sawyer and Douglas counties. Larval feeding had concluded and moths were present at infested sites.

Photos 4. A jack pine budworm larva on a defoliated branch tip.

Cherry Scallop Shell Moth (By Todd Lanigan)

For the second year in a row, the black cherry in and around Lake Wissota State Park has been heavily defoliated by Cherry Scallop Shell Moth. There is light defoliation to black cherry in NE Eau Claire County as well, but the defoliation is widely scattered.

The cherry scallop shell moth is a native insect that defoliates black and other cherries. The caterpillar rolls the leaves together into a funnel or tube shape. As the caterpillars feed, the leaves turn brown. If you unroll the leaves now, you may still find the caterpillars inside. With the leaves being brown, it is too late to control the caterpillars this year. However, if the tree is small and landowners want to do something, they can unroll the leaves, collect the caterpillars and place them in soapy water for a couple of days. Or if you should happen to find cocoons in the leaves, collect those and destroy them as well.



Photo 5. Defoliation caused by Cherry Scallop Shell Moth caterpillars.

Diseases

Dutch Elm Disease (By Paul Cigan)

As Dutch elm disease continues killing elms in WI, resistant American elms may hold some promise for species' future

- Note: Dutch elm disease does not need to be reported to forest health staff

Elms infected with Dutch elm disease (DED) have been observed wilting throughout WI in 2015. Generally lethal to American elms, DED is caused by a non-native fungal pathogen spread overland by elm bark beetles that feed on phloem tissue and inadvertently deposit DED spores. Spores germinate and fungal tissue colonizes sapwood thereby obstructing sap flow and causing wilt and eventual tree mortality. Symptoms—leaf wilt and drop, and sapwood streaking—often appear on infected elms by late spring through July, and trees die within a year or decline for several years before dying. Disease management may include prompt destruction of infectious wood and commercial fungicide application.



Recently a [research team at the Univ. of MN](#) has made notable strides toward identifying DED-resistance varieties of American elm, with the long-term goal of introducing DED-resistant American elm more widely into the upper Great Lakes landscape. Using growing trials set in the greenhouse and field, the team compared DED resistance among clones of wild-grown, surviving American elms collected throughout MN. Several varieties with moderate to high levels of DED resistance were identified, with a commercial patent pending for at least one variety. The most promising variety, now commercially available, is the St. Croix Elm™. Although the St. Croix Elm variety is less frequently killed by and often recovers from DED infection, natural selection of more-virulent DED strains will continue, so use caution even when planting and managing varieties of elm considered to be resistant. View this [webinar](#) for more information on the topic.

Photo 6. Dutch elm disease-infected American elm wilting in Washburn Co., WI.

Oak Harvesting Guidelines

The Oak Harvesting Guidelines have been posted for public comment:

<http://dnr.wi.gov/news/input/Guidance.html#open>. Comments are due by July 24, 2015. The Advisory Committee that worked on the guidelines had representatives from a wide array of partners including consulting, industrial, county, and DNR foresters, DNR forest health staff, USFS researchers, and representatives from WWOA, SAF, GLTPA, Wisconsin Paper Council, and Lake States Lumber Association.

Abiotic Frost Damage

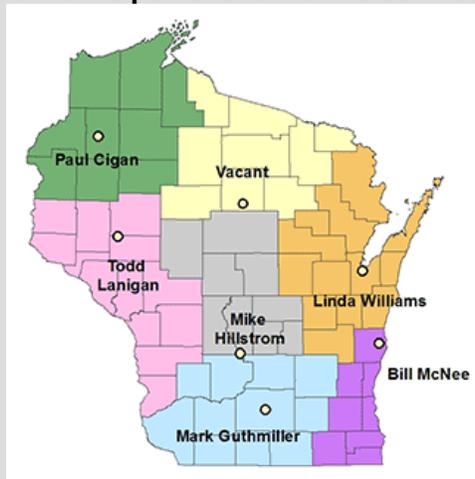
Extensive frost damage occurred on oaks across the northern half of Wisconsin this spring. Some oaks were impacted 2-3 times and are still trying to send out new leaves in July! Be patient waiting for the trees to put out new leaves and keep your eyes open for attack by two-lined chestnut borer. Landowners with impacted yard trees can use a systemic insecticide this fall or next spring to help fight off the beetles. Frost damage also occurred to a lesser degree on white pine, spruce, maple (also heavy seed crops on maples in western WI), ash and basswood.

Photo 7 (right). Oak leaf trees in recently cut stands were hit hard by frost this spring in Marathon County. Photo by Chad Keranen.



Photo 8. This branch shows 2 damage events, one frost/freeze that killed the first growth (now brown), then the buds that grew after that were frosted (larger green leaves are tattered from frost), and now the tree is breaking another bud (small red leaves). Photo taken 6/10/15 by Linda Williams.

For general forest health and municipal level urban forest health issues contact:



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

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Statewide reporting systems:

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 dnrfgypsymoth@wisconsin.gov
visit the website <http://gypsymoth.wi.gov/>

For additional information visit the Forest Health web site: <http://dnr.wi.gov/topic/ForestHealth/>

Note: This report covers forest health issues occurring in the West Central District of Wisconsin. The purpose is to provide up-to-date information on forest health issues to foresters, forest landowners, and anyone else interested. We welcome your comments/suggestions on this newsletter as well as reports on forest health problems in your area. If you would like to subscribe to this newsletter, please contact Mike Hillstrom at Michael.hillstrom@wisconsin.gov. Previous issues of this update and regional forest health updates from NER, NOR and SOR, are available from the WI DNR Forestry website at <http://dnr.wi.gov/topic/ForestHealth/Publications.html>. Articles written by Mike Hillstrom unless otherwise noted.

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 state or local laws regarding pesticide use.