

Northeast Region Forest Pest Update – 7/16/07

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Insects:

Arborvitae sawfly
Butternut wooly worm
EAB found in PA
EAB – DATCP sampling plan 07/08
Grasshopper defoliation
Hemlock looper on cedar
Lecanium scale
Longhorned beetle
Nursery pine sawfly
Oak leaf skeletonizer
Oak slug sawfly
Pine spittlebug
White pine weevil
Wool sower gall

Diseases:

Leptographium Root Rot in white pine
Pine needle rust

Other:

Fishing spider
Red Admiral butterfly swarms
Satellite view of tornado path
Wolf spider with babies

Insects:

Arborvitae sawfly – this sawfly (right) was found feeding on Northern White Cedar in Door County. Arborvitae sawflies (*Monoctenus juniperinus*) feed singly rather than in groups as many sawflies do. Damage is usually minimal.



Butternut wooly worm – these sawflies have a fuzzy covering is meant to discourage predators and to make them look larger and more scary. This sawfly was brought in by a landowner in Door County. It was feeding on Carpathian (English) Walnut.

Gypsy moth – from Bill McNee - Gypsy moth caterpillar numbers are dwindling in most of Wisconsin and adult females have been reported in the southern half of the state. Caterpillar complaints are likewise falling. Interest in aerial spraying for next year indicates that the amount of DNR spraying could easily be 10 times what was sprayed this year, when only about 1,200 acres was sprayed. Interest is greatest in Adams, Dane, Green Lake, Marathon, Marinette, and Marquette Counties. Although there have been some reports of viral and fungal mortality, the effectiveness of these agents is probably below-average due to the warm, dry spring and summer.

Aerial defoliation surveys conducted in late June and early July indicate that Wisconsin has about 23,000 acres of defoliation this year. The vast majority of this is light defoliation in Marinette County, but there are some pockets of heavy defoliation there and in Adams and Juneau Counties. The Marinette County defoliation is mainly in the Town of Stephenson, which was the epicenter for widespread defoliation in the county between 2001 and 2003. On the east coast of the US, reports are indicating that there may be 2-3 million acres of defoliation this year.

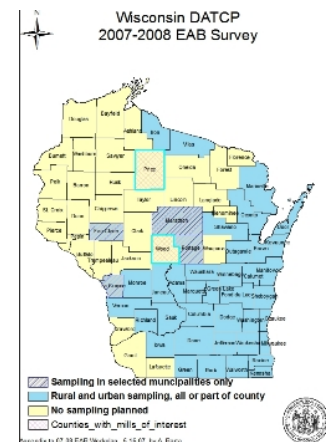
EAB – from Bill McNee - Emerald ash borer has been found near Peru, IL, about 60 miles south of Rockford, by Illinois Dept. of Agriculture staff who were investigating distressed ash inside a freeway cloverleaf off-ramp. All known infestations in Illinois are still in the northern third of the state. Last week, EAB was also found in Pennsylvania for the first time. The pest was found in planted ash in an industrial area to the north of Pittsburgh. EAB has not been found in Wisconsin yet.

WI DNR and the Department of Agriculture, Trade, and Consumer Protection (DATCP) have placed a number of new, purple sticky traps around the state. Traps are triangular and 2' long and are hung in the trees. It is believed that the purple color is attractive to the adult beetles as they fly around. In NER, traps are located in High Cliff State Park, Kettle Moraine State Forest, Peninsula State Park, Peshtigo River State Forest, and Gov. Thompson State Park. These are in addition to the detection trees (girdled ash) that were prepared in 2006 and 2007.

As of late June, several firewood dealers have been certified by DATCP to import firewood from more than 50 miles away into state parks. The wood must be treated in one of several ways (heat treatment, debarking, natural aging, etc.) in order to minimize the risk of moving a pest such as EAB or gypsy moth.

The state EAB reporting hotline (1-800-462-2803) received its thousandth call to report suspicious insects and/or trees. Fortunately, none have turned out to be EAB.

EAB sampling plan for 07/08 – DATCP has completed their sampling for 06/07. The map at right shows the areas proposed by DATCP for sampling in 07/08. The counties shaded in blue will have intensive sampling while hash-marked counties will have sampling in select municipalities and the counties with a blue margin will have sampling conducted at select mills.



Grasshopper defoliation – localized areas in central Marinette County are experiencing defoliation from high populations of grasshoppers. Grasshoppers are herbivores that usually feed on grasses and other herbaceous plants but when populations are sufficiently high you may begin to see damage like I'm seeing in parts of Marinette County. The majority of trees being affected are oaks.



Hemlock Looper on cedar – northern white cedar in Door



Photo by Chris Plzak

County is being defoliated by Hemlock Looper (*Lambdina fiscellaria*). This tiny caterpillar is a messy feeder, taking bites out of foliage and then moving on. The partially eaten scales of northern white cedar then turn brown. Young larvae feed on new foliage; older larvae can feed on older foliage. This insect usually has very localized



Photo by Chris Plzak

outbreaks where small patches will be completely defoliated and nearby stands will have minimal damage; this is the case in Door County. The damage to these trees is severe. Last year the landowners noted some defoliation and with this second year of defoliation I expect to begin seeing mortality this year.

Lecanium Scale – in some areas of Marinette County the oaks are severely infested with Lecanium Scale (right). The level of infestation is high and branch mortality is occurring, especially in the lower canopy. Many of these areas are also being defoliated by gypsy moth and are located on droughty soils. The combination of stressors could spell trouble for the oaks in that area.



Longhorned beetle – the beetle below was found on the same oak trees as those in the photos of Lecanium Scale (above). This beetle is *Sarosestes fulminans*, sorry, it doesn't have a common



name. The larvae of this beetle feed under the bark of oaks, causing some damage and occasional branch mortality. Several years ago a forester brought me a specimen of this beetle and showed me how it “barks” at you when you squeeze its abdomen, so of course I had to squeeze this beetle that I found, and it promptly barked at me, what fun!

Nursery Pine Sawfly – this sawfly is sometimes called the solitary pine sawfly (*Gilpinia frutetorum*). I found this sawfly in Shawano County feeding on red pine. Occasionally defoliation can become severe in red pine or scotch pine but the damage that I noticed was minimal. This sawfly can feed on both old and new needles.



Oak Leaf Skeletonizer – the damage in the photo below is caused by



a native insect, the oak leaf skeletonizer. The photo was taken in Waushara County. Larvae feed on the undersides of the leaves leaving the veins which give the remaining leaf a very lacy appearance. The tiny caterpillars (1/4 inch long when full grown) have pupated now. Some areas will have a second generation. Moths will

emerge in July, mate, and repeat the life cycle. This insect spends the winter as a pupae. In areas with large populations Bt can be sprayed when the small caterpillars are out and feeding.

Oak Slug Sawfly – this small sawfly was defoliating oak in Manitowoc County. The damage is not usually widespread but can be significant on single trees. Damage can sometimes resemble the defoliation caused by Oak Leaf Skeletonizer (above) since these sawflies also feed on the undersides of leaves and leave all of the veins, leaving the leaf with a lacy look. Native enemies usually keep the populations in check. If pesticides are used they must be general insecticides (not Bt).



Photo by William Carothers

Pine Spittlebugs – in some areas in Kewaunee County the white pine trees are so heavily infested with Pine Spittlebug that when you stand underneath the trees it feels as if it's raining. Those drops that you're feeling are drops of honeydew. Spittlebugs suck the sap from trees and any excess moisture is excreted as either spittle or honeydew which then rains down on you. Spittlebug nymphs form a white frothy spittle mass for protection; the adults do not form the spittle masses. On large trees spittlebugs don't seem to do a lot of damage although their feeding can cause some flagging of branch tips, younger trees may be more severely affected. The feeding sites can allow Diplodia Shoot Blight to attack the tree which can cause additional flagging of branch tips.

White Pine Weevil – these damaged terminal leaders from young white pine trees were brought in because the new growth was wilting. The culprit is white pine weevil. In early spring the adult weevils lay their eggs at the very top of the terminal leader just under the buds that will soon be expanding. The eggs hatch a few days after they're laid and the larvae begin boring downwards just under the bark of the terminal leader, damaging the cambium as they go. The terminal buds break and begin to expand. The larvae continue to feed downwards in the terminal leader and you begin to see disruption of waterflow to the terminal buds (which are still expanding and may be 4-6 inches long already). Then the terminal growth (the buds that broke this spring) begins to wilt because the waterflow is disrupted and you end up with the symptoms that you see in the photo at right. Although the terminal leader will die the tree will recover by allowing one of the lateral branches to grow upwards, taking over dominance.



Photo by Jake Bonak

Wool Sower Gall – this gall which occurs on white oaks is sometimes referred to as the oak seed gall. It is brown, soft, and fuzzy, and can be pulled apart easily. It rarely causes damage to the tree. Inside the fuzzy gall material you'll find many things that resemble small seeds, the gall wasp larvae develop within these structures.



Diseases:

Leptographium Root Rot in White Pine – in 2004 I visited several stands of white pine in Door County that were declining. Symptoms included thinning crowns from the bottom up,



yellowing foliage, and eventual tree mortality. This was occurring on sapling to small poletimber sized trees and was found throughout multiple stands. Samples taken from the roots of these declining trees found *Leptographium* Root Rot fungus which, when found in white pine, is often associated with heavy soils. I recently revisited the stands and found that the symptoms have continued to get worse. The majority of the trees now have thin foliage that is off color (left). Many trees have tipped or are leaning following a wind storm, undoubtedly due to the root mortality caused by *Leptographium*. The prognoses for these stands is poor and I

expect that the stands will continue to decline and die.

Pine needle rust – pine needle rust was noted in Shawano County on red pine that were 8-10 feet tall. This fungus requires both red pine and an alternate host (goldenrod or aster) to complete its life cycle. The orange pustules erupting from the needles (right) contain spores which will be dispersed by the wind. Occasionally the damage will be bad enough that all of the needles in the lower crown of young trees will be killed but needle rust rarely causes serious damage to trees. If needle rust is a significant problem it is recommended to control the alternate host (goldenrod and aster) by mowing or herbicide prior to August each year until the trees are larger.



Other:

Fishing spider – the assistant naturalist at Peninsula State Park sent me the photo at right of one of Wisconsin's largest spiders. These spiders usually live near moving water but occasionally they move inland and even show up in homes and surprise the residents. These spiders can have leg spans of over 4 inches! They do not create a web and instead capture their prey by waiting patiently and pouncing. But don't worry, they're not aggressive and although they may bite if you harass them they are not considered a dangerous spider.

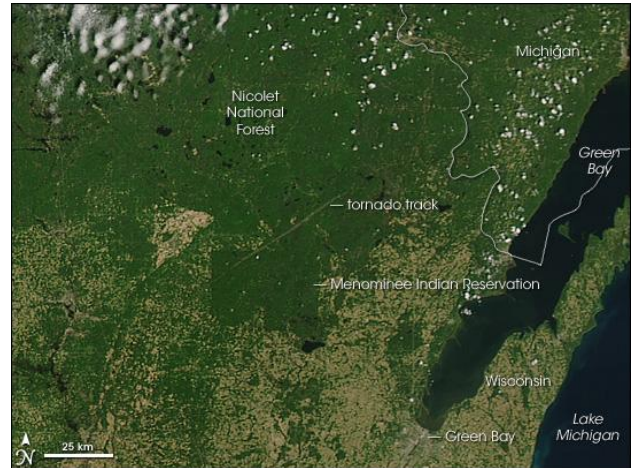


Photo by Zachary Rozmiarek

Red Admiral Butterfly Swarms – swarms of red admiral butterflies have been reported from around the region. I've seen several of these swarms and they are usually focused around flowering trees (such as basswood/linden) or flowering shrubs. These butterflies are sipping the nectar from the flowers and do no damage to the tree even though the number of butterflies on a single tree may be incredible. Every 8-10 years in Wisconsin the population of Red Admirals can get quite large but since the caterpillars feed on nettles, and the adults don't do any damage, they're really just something to enjoy.



Satellite view of Tornado path – at right is a MODIS satellite view of the tornado that touched down on June 7, 2007. You can see the track of the tornado in the center of the photo. It passed through 4 counties while it traveled 36 miles on the ground, creating a wide swath of destruction.



Wolf Spider – wolf spiders care for their young by



Photo by Jim Klosiewski

carrying around the baby spiders on their back. The photo at right shows a mother spider carrying her babies on her abdomen (they appear as small bumps/lumps). These spiders can be found in homes. They do not spin webs but instead chase down their prey, usually hunting in the evening and at night.

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<http://dnr.wi.gov/org/land/forestry/Fh/index.htm>