

Southern Region Forest Health Update

Wisconsin DNR, Forest Health Protection Unit

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Topics in this update

DNR Forest Health Program Coordinator Retiring
Forest Tent Caterpillar
Eastern Tent Caterpillar
Elm Spanworm
Gypsy Moth
Emerald Ash Borer
Beech Bark Disease
Cashews or Cryptic Fungi?
Bur Oak Blight (BOB) Update
Request for Reports of Declining Walnut and Walnut Mortality
Miscellaneous Items

Mark Guthmiller (Southern Region Forest Health Specialist)
Articles in this newsletter were written by Mark unless otherwise noted

DNR Forest Health Program Coordinator Retiring

If you haven't heard yet, after more than 3 decades serving the people of Wisconsin helping protect and manage our forest resource, Jane Cummings Carlson has decided to retire at the end of this month. Jane has contributed extensively to the understanding of forest health issues and impacts to the forest resource in Wisconsin. She served many years as the state forest pathologist working on many tree disease issues from fusarium canker on walnut to research on chestnut blight and many issues in-between. Her expertise in tree defect and decay will be greatly missed and almost impossible to replace. As state forest health program coordinator, Jane stepped into coordination efforts in responding to emerald ash borer and was one of the first advocates in the nation to address concerns of firewood movement and associated forest pest risks that go with such movement. With her foresight and efforts (along with others) the firewood movement issue became elevated to a national concern. Here is a big thanks to Jane for all her service and a sincere wish for a happy and enjoyable retirement! Knowing Jane she won't be sitting around for long! Thank you and best wishes Jane!



Forest Health Program Coordinator, Jane Cummings Carlson

Forest Tent Caterpillar (FTC)

Forest tent caterpillar is a native insect that more commonly goes into periodic “outbreaks” in northern Wisconsin. However FTC continues to make its presence known in southern Wisconsin. Last year we had a large area east of Devils Lake heavily defoliated by FTC. Reports of FTC this spring have been received in Crawford, Dane, Rock and Sauk Counties in southern WI. Additional counties may also observe some level of FTC in southern WI. Egg mass surveys conducted this past winter indicated areas of light to moderate defoliation possible with localized areas of heavy defoliation in Sauk County. The caterpillars are currently in various instar stages indicating a prolonged hatch period. Some caterpillars are close to spinning cocoons while some stragglers appear to be only 2nd instars. I am guessing defoliation will become more noticeable over the next 7 to 10 days. We will know more over the next couple weeks if this survey accurately predicted damage in this area. FTC feeds on leaves of many species of hardwoods, including aspen, oak, cherry, linden, hickory, and others. At one Sauk County site in May, early instar caterpillars seemed to preferentially congregate and feed on linden. A few weeks later the feeding preference appeared to shift from linden to hickory. Other species were also being fed on including oak and aspen. I suspect the early preference for linden was related to hatch timing and linden bud break coinciding.



Forest tent caterpillar feeding on hickory

For more information on forest tent (the one that does not make a dense tent):
<http://www.na.fs.fed.us/spfo/pubs/fidls/ftc/tentcat.htm>

Eastern Tent Caterpillar (ETC)

Eastern tent caterpillars were commonly observed this year in many parts of southern Wisconsin. Some reports are encouraging that the population may be going down in some areas after a number of years of high population. Rock County near Janesville wins the award for most problematic area this year for defoliation and nuisance issues by this native defoliator of fruit trees in the genus “prunus”. Populations in this area caused some heavy defoliation to a woodlot edge and migrating caterpillars caused some nuisance issues to adjacent homeowners. Eastern tent caterpillars are rapidly winding down their caterpillar stage and most damage has been done for the year. Pupation should be starting soon. A few diseased larvae were observed in Dane County. According to the literature, the NPV virus occasionally affects this species but usually not to the level observed in gypsy moth. When



Eastern tent caterpillars are in later instar stages and many should pupate soon.

present, NPV is often observed with dead larvae hanging on the outer portion of the tents they make. For defoliated yard trees this year, proper mulching and watering is the best recommendation.

For more information on eastern tent caterpillars:
<http://learningstore.uwex.edu/Assets/pdfs/A2933.pdf>



Eastern tent caterpillar suspected to have been killed by the NPV virus

Elm Spanworm

Last year I reported on a number of defoliators in the Baraboo hills of Sauk County. This year we continue to get reports of spanworms from Sauk County foresters, Paul Kloppenburg and Rick Livingston (along with a number of FTC reports as well). My observation around Parfreys Glen area indicates we will be seeing some potential for moderated defoliation by elm spanworm. Freedom and Sumpter townships in Sauk County also had moderate to high spanworm populations being reported. Elm spanworm caterpillars have two color phases (yellow-green to brown). The darker ones are apparently more common during population outbreaks. Both color phases were seen in the Parfreys Glen area.



Dark phase of elm spanworm



Both color phases of elm spanworm catching a free ride

More information on spanworms:
<http://ento.psu.edu/extension/factsheets/elm-spanworm>

Gypsy Moth Updates (Bill McNee)

The DNR gypsy moth suppression program has completed all spraying for 2011. Treatment areas in southern Wisconsin were treated in late May and areas in the northeast were treated on June 2. The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) has also completed aerial bacterial insecticide spraying in southwest Wisconsin as part of its slow-the-spread program.

DATCP will treat one site in Grant County with pheromone flakes later this month as part of its slow-the-spread program. Additional sites farther north will also be treated. The pheromone flakes are used at very low populations to prevent male moths from finding females. Maps of the slow-the-spread treatment areas are available online at www.gypsymoth.wi.gov. Click on the yellow county and then click on the treatment area to see a detailed boundary map.

Over the next few weeks the gypsy moth caterpillars will be large enough to defoliate trees and become a nuisance for homeowners. Burlap collection bands should be prepared by mid-June and then checked every afternoon to dispose of hiding caterpillars. More information about management options for homeowners and woodlot owners is available at www.gypsymoth.wi.gov or at 1-800-642-MOTH. Local governments and property owner groups are encouraged to keep track of gypsy moth complaints for use in deciding whether to spray in 2012.

Homeowners considering insecticide treatments in June should contact an arborist or tree service very soon. The Wisconsin Arborist Association has a list of certified arborists available at www.waa-isa.org. Additional businesses offering insecticide treatments may be found in the phone book under 'Tree Service.' Homeowners can also purchase insecticides at garden centers and large retailers. (Note: caterpillars in southern Wisconsin are now in late 3rd or older instar stages which are less susceptible to Btk based products)

DATCP will be hanging approximately 26,000 gypsy moth traps this year, and setup is already in progress. All of the southwest counties are being trapped, and trap numbers per county range from a few dozen to over 1,200. The Port of Milwaukee is the only southeast area being trapped (to detect the Asian gypsy moth, which is not present in North America). Gypsy moth traps are small and may be green or orange. Larger purple traps are used to detect emerald ash borer.



4th instar and older caterpillars are now common and showing pairs of blue and red bumps.



Burlap band used to collect larger gypsy moth caterpillars.



Gypsy moth 'milk carton' trap. Photo from www.forestryimages.org.

Emerald Ash Borer Updates (Bill McNee)

On June 8, researchers from UW-Madison released two species of small, stingless wasps near Newburg to help control the emerald ash borer (EAB). Both species attack the EAB larvae beneath the bark. A third natural enemy, which attacks the EAB eggs, will be released later this summer once the EAB adults are laying eggs. For more information, read the recent DNR news release at http://www.dnr.wi.gov/news/BreakingNews_Lookup.asp?id=2083.



Tetrastichus planipennis, one of the wasps released against EAB. Photo by USDA.



The parasitic wasps are very small and do not sting.



It will be many years before we know if they establish in the Newburg area



Purple EAB detection trap.

Adult EAB flight should begin shortly. In preparation, DATCP has hung approximately 6,000 purple EAB traps this year. About 2,000 are on a grid in northwest and southwest Wisconsin, while the rest are risk-based and placed in urban areas and at campgrounds, wood-utilizing businesses, etc. Traps are not being placed in Brown, Kenosha, Milwaukee, Ozaukee and Washington Counties because EAB has already been detected there.

If you see a purple trap lying on the ground, please email Becky Gray at DATCP (rebecca.gray@wisconsin.gov). A trapper will rehang the trap.

DNR forest health staff have also prepared a 'double-decker' EAB trap in a number of state parks and forests. These traps are not practical to set up in large numbers, but may be able to detect EAB at lower populations than a standard trap hung in a tree.



Double-Decker EAB trap used in state parks and forests.

Beech Bark Disease(Bill McNee)

Federal funding has been provided to establish a beech bark disease monitoring and impact assessment project in Wisconsin for 2011. Travis Karschnik, a graduate student from UW-Stevens Point, will be working on the project under the supervision of Dr. Holly Petrillo and Dr. Neil Heywood. If you see white ‘wool’ on beech trees, please report it to a DNR forest health specialist. To date, very low populations of beech scale have been detected in Ozaukee, Sheboygan and Washington Counties in the DNR’s Southern Region.



White ‘wool’ produced by beech scale.

Cashews or Cryptic Fungi?

A concerned landowner in Washington County contacted DNR forester, Julie Peltier, regarding a number of strange growths on a dead Scotch pine growing among other conifers in a plantation. He was concerned of the growth spreading and killing other trees in the plantation. Photos of the growth structures looked like cashews pasted to the tree trunk. A site visit indicated sapsucker injury followed by bark beetle as the main cause of the mortality. The fungal growth was familiar to what I had seen on red pine some years ago but I could not recollect the name. Looking under the microscope I cut into the fungal growth and noticed “pore” structures hidden under a flap of the fruiting body. When I looked in my notes for the name it sure did fit: Cryptoporus (obscure pores) volvatus. This is a saprophytic fungus showing up on a dead tree and not a health concern.



Cashew like fungal growth on the trunk of a dead Scotch pine



Close up of Cryptoporus volvatus along with bark beetle exit holes.



Pore structure present underneath outer covering (flap)

For more information on this “cryptic” fungus see: http://www.mushroomexpert.com/cryptoporus_volvatus.html

Bur Oak Blight (BOB) Update (Kyoko Scanlon)

Here is additional information to the article about BOB in Mark's May newsletter. A last minute sample collection to test for BOB was made last fall, and recently I received the results from Dr. Tom Harrington's lab of Iowa State University. Leaf and twig samples were collected from bur oak trees that were experiencing late season leaf necrosis in 2 locations, one in Dane County and one in Green County. "Tubakia sp. BOB" was isolated from both samples.

BOB is believed to be caused by a new species of Tubakia. Tubakia dryina has been known to be the causal agent of Tubakia leaf spot. However, BOB is considered a blight disease, rather than a leaf disease. In a severe case, all leaves on a tree will die late in the season. Symptoms of BOB have been reported in the Upper Midwest since 1990's, including Kansas, Iowa, Minnesota, Nebraska, and Wisconsin. Upon further investigation by Dr. Harrington's lab, T. dryina is now considered a species complex, and one species of Tubakia, currently called "BOB Tubakia" or "Tubakia sp. BOB" is associated with the disease. Dr. Harrington's lab is suggesting a new species name, and eventually it will have a more official sounding name than "BOB Tubakia".

Dr. Harrington's lab is interested in collecting additional samples from Wisconsin this summer. I hope you could help sampling efforts by spreading the word out. BOB symptoms usually start showing up around late July into early August. The best time to collect leaf and twig (stem) samples is August into mid-September. Samples can be collected from symptomatic leaves of any oak species. It doesn't have to be just bur oak as they are collecting the baseline data of various Tubakia sp. as well. It is noteworthy that our samples exhibited leaf symptoms somewhat different from what they have been observing in Iowa. With continuing collaboration with Dr. Harrington's lab, we should be able to learn more about what's happening to our oak trees in late summer.

As Mark mentioned in his newsletter, more information about BOB, including Dr. Harrington's video that describes BOB and his research, is available at <http://www.public.iastate.edu/~tcharrin/BOB.html>. Please note that Dr. Harrington says "BOB is not as bad as it looks". Trees may be able to sustain repeated defoliation because it starts late in the season, though secondary pests may kill trees that are stressed by repeated infection with BOB. We need to make sure that the public will not confuse BOB with oak wilt.

Request for Reports of Declining Walnut and Walnut Mortality (Reminder)

Thousand Canker Disease Survey Efforts Underway

If you observe crown dieback or mortality of black walnut, please contact your [regional forest health specialist](#). A form may be sent to request additional information and to discuss a possible site evaluation. We are in the process of developing a webpage to share more information on TCD. In the mean time you can learn more by going to: http://na.fs.fed.us/pubs/palerts/cankers_disease/thousand_cankers_disease_screen_res.pdf.

Miscellaneous Items

Forest Health Publications

Ordering Publications - DNR staff can order forest health and other forestry brochures from the following link: <http://intranet.dnr.state.wi.us/int/land/forestry/Publications/>. Non-DNR staff can order publications by sending a note to the email link at the external web site for DNR forestry publications: <http://dnr.wi.gov/forestry/publications/>. If any problems or questions contact your forest health specialist.

QUIZ: What caterpillar is this?
If not sure: <http://www.otsego.org/msue/bulletins/E2299.pdf>



SOR Forest Health Assistance
Wisconsin DNR, Forest Health Protection Unit
September 2010 to September 2011

Contacts for DNR staff, municipal foresters, and forestry cooperators

For general forest health and municipal level urban forest health issues

Mark Guthmiller (SOR region: SCR & SER combined) 608-275-3223

For gypsy moth

Mark Guthmiller (SCR Team area) 608-275-3223

Bill McNee (SER Team area) 920-662-5430

Andrea Diss-Torrance (Statewide issues) 608-264-9247

For emerald ash borer

Mark Guthmiller (SCR Team area) 608-275-3223

Bill McNee (SER Team area) 920-662-5430

For beech bark disease/beech scale

Mark Guthmiller (SCR Team areas) 608-275-3223

Bill McNee (SER Team area) 920-662-5430

Direct public inquiries regarding yard tree concerns to UW county or state extension offices or:

Emerald ash borer hotline

1-800-462-2803

Emerald ash borer e-mail

DATCPEmeraldAshBorer@wi.gov

Gypsy moth hotline

1-800-642-MOTH

Additional Program Web-based Resources:

Forest Health web site: <http://www.dnr.state.wi.us/forestry/fh/>

Gypsy Moth web site: <http://gypsymoth.wi.gov/>

Emerald ash borer web site: <http://dnr.wi.gov/forestry/fh>

Emerald ash borer cooperative state web site: <http://emeraldashborer.wi.gov/>

Note: Southern Region is composed of both SCR and SER Team Counties

SCR Team Counties: Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock and Sauk

SER Team Counties: Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington, and Waukesha