

West Central Region Forest Pest Update – 8/1/2008

(Todd J. Lanigan)

Topics covered:

Insects:

Gypsy Moth
Emerald Ash Borer
Jack Pine Budworm
Postoak Locust

Diseases:

Bacterial Leaf Scorch

Other:

Hemlock Mortality
New Firewood Web Site

Insects:

Gypsy Moth (Bill McNee - NER Gypsy Moth Coordinator) –

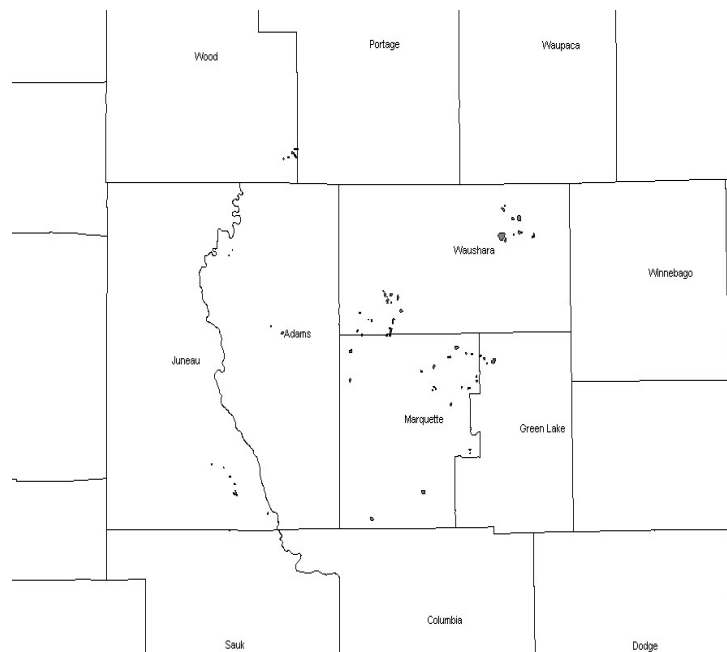
With the peak of the caterpillar stage having passed, homeowners as far north as Marinette County are now calling about seeing the male and female moths. Caterpillar mortality caused by the NPV virus and *Entomophaga* fungus are coming in from all over the infested portion of Wisconsin, but some areas also appear to have low disease mortality. Caterpillars killed by NPV hang in an inverted "V" whereas those killed by *Entomophaga* hang straight down (photo at right).



As an indicator of gypsy moth activity in WCR this year, the number of confirmed or likely gypsy moth calls received by the DNR gypsy moth program as of 7/30 is: Adams Co. - 44, Juneau Co. - 4, Marathon Co. - 11, Portage Co. - 2, and Wood Co. - 7. Reports of defoliated trees re-foliating are also coming in at this time. The second set of oak leaves is smaller, pale and shiny and looks noticeably different from the original set of leaves (photo at right).



Aerial defoliation surveys were recently conducted in central Wisconsin, and defoliation noticeable from the air was seen in all of the counties in eastern WCR. Defoliation was mostly light but some pockets of moderate or heavy defoliation were also seen. By county, recorded WCR defoliation was: Adams 69 acres, Juneau 114 acres, Portage 8 acres, and Wood 215 acres. The map at the right shows defoliation reported in WCR and NER. Due to the high cost of flying, the regions of each county flown were largely dependent on recent gypsy moth



activity and the location of calls received by the DNR gypsy moth program. If interested in a more detailed map of a specific region, contact Bill McNee, NER gypsy moth coordinator (bill.mcnee@wisconsin.gov).

Gypsy Moth Spray Video – Bill McNee sent out a link featuring a short video on Gypsy Moth spraying in Milwaukee the week of 20 July. The video and accompanying music is pretty good. If you have not seen the video, here is the link.

<http://www.youtube.com/watch?v=eZn4TQnJgww>.

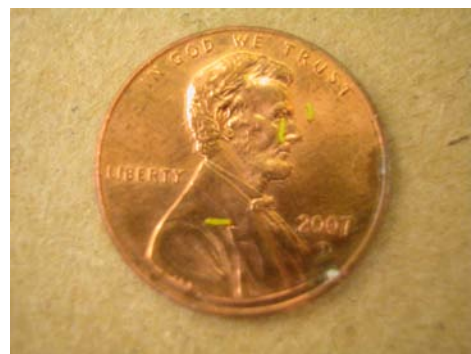
Emerald Ash Borer a.k.a. EAB (Bill McNee) - Missouri has become the newest state to find EAB. Purple sticky traps in a campground at Lake Wappapello, in southeast Missouri about 120 miles south of St. Louis, were found to have adult EAB. More information is available at:

<http://www.stltoday.com/stltoday/news/stories.nsf/sciencemedicine/story/E088C530A38A600786257496000F7557?OpenDocument>

EAB has also turned up in two communities in southern McHenry County, Illinois, which is adjacent to Wisconsin. Other recent EAB finds of mention: central Illinois in the City of Bloomington, two infestations in northern Virginia, and an isolated infestation in Ottawa, Ontario. A map showing known infestations as of 7/22 is available at the following link, but there have been so many new finds that the map is already showing its age: http://www.emeraldashborer.info/files/MultiState_EABpos.pdf

Survey crews in Wisconsin continue to search for EAB using purple sticky traps, girdled detection trees, and visual surveys. To date, EAB has not been found in Wisconsin.

Jack Pine Budworm – I have not completed my budworm surveys, but I found something interesting in Jackson County while I was conducting a survey. First, I found budworm in Jack pine causing heavy defoliation, which in the last few years is really unusual (it is much easier to find this occurring in 20-30 year old red pine). Second, I found a fresh egg mass on a Jack pine that looked swollen as opposed to laying flat on the needle. I collected the needle and egg mass and put it in vial. Later on that day I opened the vial and larvae were hatching out of the egg mass. I had no idea that the egg mass actually swelled up when the eggs were about to hatch and that the caterpillars were so small. The photo below on the left is of a caterpillar emerging from the egg mass and the photo on the right will give you a better perspective of how small the caterpillars are. I sure am glad I do not have to survey for 1st instar caterpillars. There are three caterpillars on the penny.



Postoak Locust – The frequent rains we had earlier this year I believe helped control the Postoak Locust. I have only received one phone call about grasshoppers being all over. In mid July while rechecking an Oak Wilt Study Plot in the Jackson County Forest in SE Jackson County, I noticed very few Postoak Locusts were around. This same site last year was alive with Postoak Locust and most of the oaks had 100% defoliation. This year, some of those same oaks that had 100% defoliation had very little live crown (photo at right). I noticed on one of these trees a Twolined Chestnut Borer was crawling on it. Postoak Locust when the population is high may cause branch/crown dieback when the tree is heavily defoliated. It will be interesting to see if these trees survive or not. The last couple of years the oaks have had a rougher than normal life, summer droughts, Postoak Locusts, oak borers, etc.



Diseases:

Bacterial Leaf Scorch (Kyoko Scanlon - Forest Pathologist) – This summer, the U.S. Forest Service is conducting a survey to investigate the geographic distribution and host range of Bacterial Leaf Scorch (BLS). Wisconsin plans to participate in the sample collection efforts, and I would like to ask your help on this study. BLS is caused by the bacterium *Xylella fastidiosa*. Though it has been found throughout the east, southeast, and some mid-west states, it hasn't been confirmed in Wisconsin yet.

We are asked to collect approximately 30 samples of symptomatic leaves from a wide geographic range in Wisconsin. We hope to collect samples both from urban and forest settings. Since we need to collect samples of symptomatic leaves and BLS symptoms generally won't show up until mid to late July, arrangement of sample collection may be tricky.

As the first step, from now through August, I would like you to keep an eye out for trees that are suspicious of BLS and if possible, record the location of where you found the symptomatic tree. For symptom descriptions of each species by BLS, please visit the USFS website at <http://fhn.fs.fed.us/sp/bls/bls.shtm>. Let your Regional Forest Health Specialist (Todd Lanigan for WCR) know of any possible BLS sites you find. I will consolidate reports from all of Regional Forest Health Specialists, pick out around 30 sampling sites that are most promising in terms of symptom development and a good representation of geographic distribution, and arrange sample collections. Samples will be collected in late August to early September and sent to the lab in Michigan State University as soon as the sample is taken.

Preference in the species of sampling is in the following order; oak, elm, sycamore, maple, mulberry, and other. Samples required for the lab analysis are 2-5 leaves with symptoms attached to a small shoot (both old leaves and young leaves), so damage by sampling is minimal or none.

If you have any questions or concerns on the plan, please feel free to e-mail me, or call me at 608-275-3275. Thank you all very much for your help. Kyoko

Other:

Hemlock Mortality – I looked at some dead hemlocks in Brunet Island State Park. The dead hemlock stood out from the rest of the trees in the park. The tree trunks were a bright reddish brown from the inner bark being exposed and you could see holes in the bark. There was also a thick mat of bark mulch surrounding the dead hemlock. Brunet Island State Park has three species of woodpeckers in it and it appeared all three species were having a good time on the dead hemlocks. From the look of things, the trees had a few things going against them. I found exit holes and galleries possibly from the Hemlock Borer and/or other borers, mycelial fans from Armillaria Root Rot were present on the root collar and roots, and the past summer droughts and age may also be playing a role in the mortality.

If you are interested in reading more about Hemlock Borer and/or Armillaria Root Rot, here are a couple of links you can check out.

http://www.na.fs.fed.us/spfo/pubs/pest_al/hborer/hborer.htm

<http://na.fs.fed.us/spfo/pubs/fidls/armillaria/armillaria.htm>

New Firewood Web Site (Jodie Ellis, Exotics Insects Education Coordinator, Department of Entomology, Purdue University) – I am happy to announce the launch of the Continental Dialogue on Non-Native Forest Insects and Diseases new Web site, www.dontmovefirewood.org. The Web site is a work in progress designed to give people who produce or use firewood information on reducing the danger of spreading invasive forest pests. I am particularly fond of the Videos section in which you will meet Woody the Emerald Ash Borer. Check frequently for further adventures.

The Continental Dialogue is a collaboration of many diverse groups - including federal and state organizations, universities, non-profit organizations, and retailers - who have come together under guidance of The Nature Conservancy to abate the threat to North American forests from non-native insects and diseases. I am fortunate enough to be a founding member of the group's steering committee and continue to serve as such. For more information on the group, please visit:

<http://www.continentalforestdialogue.org/>

Arthropod Proverb: (Chinese) - In honor of the summer Olympics.

The summer insect cannot talk of ice; the frog in the well cannot talk of heaven.

Previous issues of this update and regional forest health updates from NOR, NER, SCR/SER, and WCR are available from the WI DNR Forestry website at:

<http://dnr.wi.gov/forestry/fh/inthenews/>