Northeastern Wisconsin Forest Health Update

October 23, 2012

Topics covered this month:

Insects:
Box elder bugs congregating
Emerald ash borer
Gypsy moth

Diseases:
Annosum
Beech bark disease
Oak wilt

Other:
Drought

Insects

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

Box elder bugs congregating – I've been noticing box elder bugs congregating on houses and garages over the past few weeks. These pests feed on box elder and other maples, but will attempt to come into protected areas, like your house, to spend the winter. They do not bite although they will stain the walls or carpet if you squish them. Usually ladybugs also accompany box elder bugs at this time of year as they attempt to come indoors, but I haven't been seeing many ladybug congregations. Have any of you been seeing congregations of ladybugs?

Box elder bug. Photo from www.bugwood.org

Emerald Ash Borer (EAB) – from Bill McNee. In mid-August it was reported that EAB had been detected in Perrot State Park with the finding of EAB in a sticky trap. Further investigation found EAB larvae in a tree immediately adjacent to where the sticky trap was located, so the traps do work!

Recently there have been several new or updated EAB documents that may be useful to our Pest Update readers:

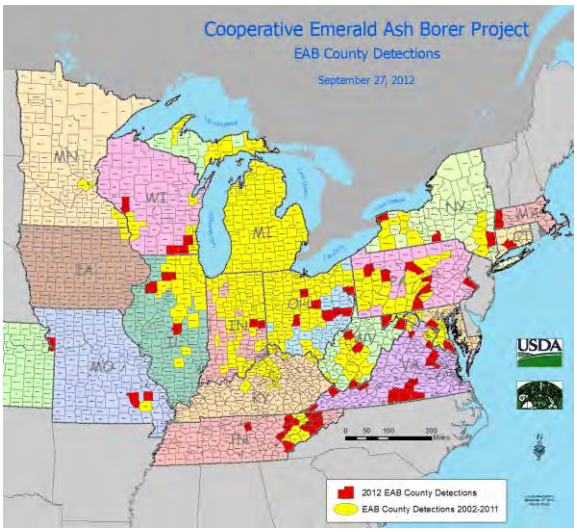
- UW Extension has updated its EAB insecticide guide for homeowners to add several new pesticides: http://hort.uwex.edu/sites/default/files/Homeowner%20Guide%20to%20EAB%20Insecticide%20Treatments%209_27_2012.pdf.

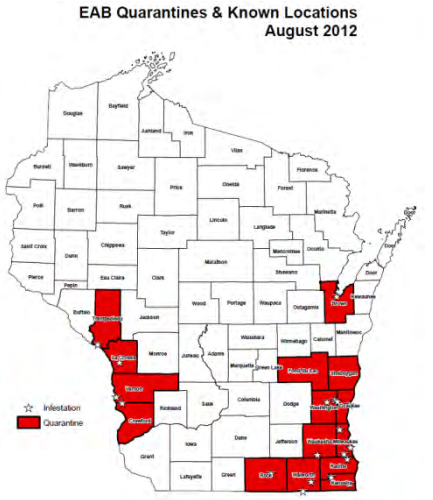
- The Wisconsin Dept. of Agriculture, Trade and Consumer Protection (DATCP) has released an updated list of Wisconsin communities where EAB has been detected: http://datcpservices.wisconsin.gov/eab/articleassets/EAB_Infested_Wisconsin_Communities.pdf.

- A simple to use EAB decision guide for homeowners has been produced by Purdue University in Indiana: http://extension.entm.purdue.edu/EAB/pdf/NABB_DecisionGuide.pdf.

- Iowa State University Extension has produced a guide to ash tree problems, including EAB: http://www.extension.iastate.edu/pme/Publications/EAB/FAQSUL21AshTrees.pdf.

So far in 2012 there have been 63 new county detections nationwide (shown in red below), seven counties more than were found in all of 2011.





Wisconsin counties currently quarantined for EAB are shown in red.

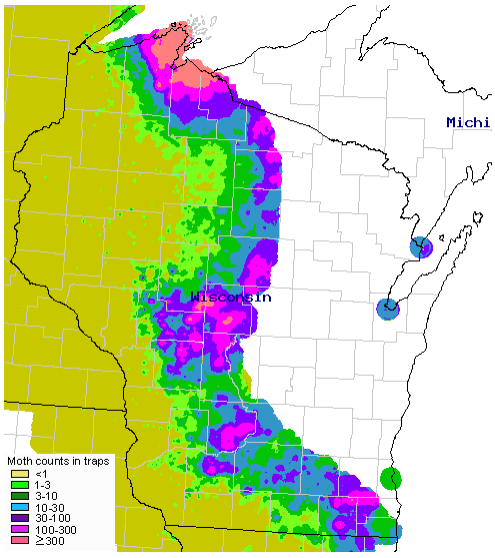
Sign up for automatic EAB news updates at: http://datcp.wi.gov/Gov_Delivery/EAB/index.aspx.

Suspicious beetles or symptomatic trees should be reported to the EAB hotline, 1-800-462-2803, or emailed to: DATCPEmeraldAshBorer@wisconsin.gov.

Gypsy Moth – from Bill McNee. The Wisconsin Dept. of Agriculture, Trade and Consumer Protection (DATCP) has released its final data from the 2012 gypsy moth trapping project. DATCP caught 174,000 moths this year, compared to 234,000 moths in 2011 (note: the number of traps changes annually). The highest numbers of moths were caught in these counties: Bayfield (46,000 moths), Ashland (26,000), Jackson (16,000), Wood (11,000) and Clark (10,000). The counties with the highest number of moths per trap were: Ashland (122 moths per trap), Wood (120), Iron (95) and Bayfield (73). Far northern Wisconsin is the area of the state where gypsy moth has spread fastest over the last 5 years.

Egg mass surveys can now be done in order to predict gypsy moth populations in 2013. For more information on how to do egg mass surveys, visit www.gypsymoth.wi.gov. Information on oiling or removing egg masses is also available at this website.

Gypsy moth egg masses. Photo by Bill McNee.



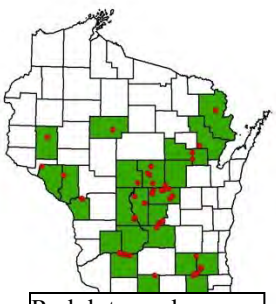
Map of 2012 gypsy moth trap catches in the DATCP trapping program. Areas in white are not trapped. Map produced by the Gypsy Moth Slow-The-Spread project

Applications to the 2012-13 DNR gypsy moth suppression program are due by Friday, December 7 of this year. Applications and a list of local gypsy moth contacts are available at www.gypsymoth.wi.gov. If you decide to participate in the suppression program to spray in 2013, please let Bill McNee know in advance of the December deadline (bill.mcnee@wisconsin.gov). If you decide to do privately-organized spraying, a list of for-hire aerial applicators is available at the above website. The December 7 deadline does not apply to privately-organized spraying.

If an area is thinking of participating in the DNR suppression program to spray in 2013, oil the masses or wait until this December to remove them so that surveyors can determine if an area should be sprayed.

Diseases

Annosum – just a reminder to folks working in the field. If you find an annosum pocket please report it to the forest health person in your area so that we can keep the maps updated, which can be helpful to others working in the field to know if Annosum has been found near stands that they may be working in. If you're unsure of whether the pocket you're in is annosum or not, take photos or samples and send them to your forest health specialist. We may be able to identify it from the photos/samples, or we may want to make site visit to verify it.



Red dots are known annosum locations.

At this time of year the annosum fruiting bodies should have new growth showing up. This new growth will be a nice white or pale cream color on the underside of the conk, and along the outside edge of the conk. Look for fruiting bodies on old stumps from the previous thinning, at the base of trees that have been dead for more than a year, and even occasionally I have found fruiting bodies at the base of trees that are recently dead, although it is more common to find them on stumps and long-dead trees.

The underside of an annosum conk showing bright white new growth on some parts of the conk, while other parts of the conk (tan area of conk) did not put on any new growth this year .

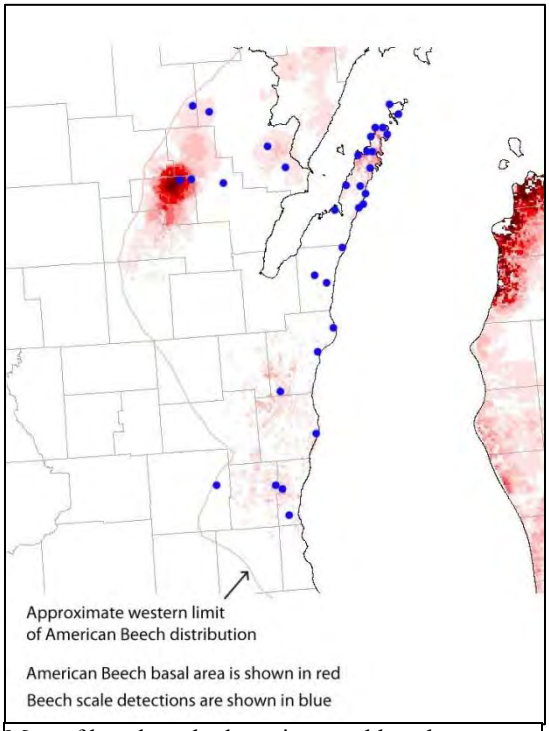
Large annosum conk showing new growth underneath and along the edge, with brown top.

The "popcorn" stage of annosum fruiting bodies, small white blobs near the base of the tree or just under the duff layer.

Beech Bark Disease – from Bill McNee. Beech scale surveys done in 2012 have found that beech scale, the insect associated with beech bark disease, is now present throughout most of the range of American Beech in Wisconsin. Current year surveys were done by staff from UW-Stevens Point and Menominee Tribal Enterprises. First detections were made in Dodge, Forest and Menominee Counties.

Foresters finding high populations of beech scale (white wool on beech trees, as shown in the photo below) are asked to report it to one of the DNR forest health staff. At present, high populations of beech scale and the disease have only been found in Door County.

White wool of beech scale. Photo by Bill McNee.



Map of beech scale detections and beech abundance (shaded red). Map by Bill McNee.

More information about beech scale, beech bark disease and forest management can be found online at: http://dnr.wi.gov/topic/foresthealth/beechbarkdisease.html. In general,

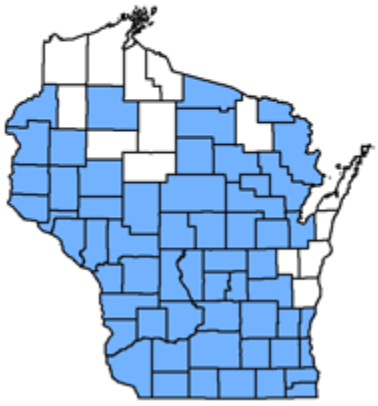
- Foresters should consider beech vigor and bark texture in the order of removal when planning harvest activities. Typically, this would mean that beech with low vigor and/or rough bark would be harvested. Once moderate or high scale populations are seen in the stand, harvesting activities may be appropriate.
- Do not remove all of the beech, because some trees are resistant to the disease and will continue to provide wildlife and timber benefits. Resistant trees cannot be identified until they survive the first beech bark disease wave.
- In campgrounds and other areas where diseased trees will be a hazard to people and structures, remove the beech trees once they are moderately infested with the scale. Diseased trees are a safety hazard because they can snap in high winds.
- Encourage the growth of non-ash species in harvest openings because of the threat of emerald ash borer.

Oak wilt – remember that in order to stop an oak wilt pocket you have to somehow address the root system of the oaks that are being affected. Simply cutting the trees down will not stop the spread of the fungus. Root graft disruption will break the root grafts and stop the fungus from continuing to spread. Root graft disruption can be accomplished through vibratory plow lines, site disruption (stump and root mass removal), or an experimental option using herbicides. All of these options require the use of the table (below) found in the document Oak Wilt Management – What Are The Options http://learningstore.uwex.edu/assets/pdfs/G3590.pdf to help determine where the root disruption should be located because it will almost always include

trees that have died recently as well as trees that currently appear healthy but whose root systems are already infected with the fungus.

If you, or a landowner you're working with, are interested in trying the herbicide option please contact me for the instructions/protocols and the forest health team would like to follow up on the success or failure of any of these that are done using our current protocols as we would like to try to take this option from experimental to proven.

Oak Wilt confirmed counties in WI (August 2012)
Note: Oak wilt was first confirmed in Lincoln, Sawyer, and Vilas counties in August 2012.



Don't forget to check out the DNR webpage on oak wilt for more information including the online interactive guide to help you decide when to cut or not to cut in an oak stand based on the risk of oak wilt introduction and expected level of impact if oak wilt is introduced into the stand http://dnr.wi.gov/topic/ForestHealth/OakWilt.html

Table 1. Distances for loamy sand and sandy soils were based on 95% confidence level model of Bruhn et al. (1992); Distances for sandy loam and loam soils were extrapolated from sandy loam model at 80% confidence level.

Combined DBH (inches)	Inter-tree distance sandy	loamy sand	sandy loam/loam
2	3.9	3.1	2.2
4	7.8	6.2	4.5
6	11.6	9.3	6.7
8	15.5	12.4	8.9
10	19.4	15.4	11.2
12	23.3	18.5	13.4
14	27.2	21.6	15.6
16	31.0	24.7	17.9
18	34.9	27.8	20.1
20	38.8	30.9	22.3
22	42.7	34.0	24.6
24	46.6	37.1	26.8
26	50.4	40.2	29.1
28	54.3	43.2	31.3
30	58.2	46.3	33.5
32	62.1	49.4	35.8
34	66.0	52.5	38.0
36	69.8	55.6	40.2
38	73.7	58.7	42.5
40	77.6	61.8	44.7
42	81.5	64.9	46.9
44	85.4	68.0	49.2
46	89.3	71.1	51.4
48	93.1	74.1	53.6

Other/Misc.

Drought – yes, the topic of drought shows up again in the pest update. For those of you in areas that suffered significant drought this year, you may have trees dying from typical disease such as oak wilt, dutch elm disease, annosum, or leaf/needles diseases, just to name a few, but mortality could also be from drought and attack by secondary pests, such as bark beetles and root rot fungi.

Additionally, any trees that were already under some form of stress, such as being planted too deeply, planted off-site, defoliated in 2011 or 2012, or stands that were thinned heavily in 2011 or 2012, may show more rapid effects from the drought as they were already under stress.

The effects of the drought will continue to show themselves for the next year or two, so keep this in mind when as you're evaluating tree mortality over the next couple years. If you have photos of drought related tree mortality and would like to share them please send them to me and I'll try to get them into future pest updates so that others can see the extensive effects that the drought had on trees this year.

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:

Linda Williams
Forest Health Specialist
Wisconsin Department of Natural Resources - Northeast Region
Linda.Williams@wi.gov
http://dnr.wi.gov/topic/ForestHealth/

For more information contact:

Bill McNee
NER Gypsy Moth Suppression Coordinator
920-662-5430
Bill.McNee@wi.gov

Linda Williams
NER Forest Health Specialist
920-662-5172
Linda.Williams@wi.gov

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.