April 2012

Northern Region Forest Insect & Disease Report

Wisconsin Department of Natural Resources
Division of Forestry

There seems to be no insect/disease fireworks occurring in the North Woods right now, but it is early. For defoliator predictions, see the January newsletter. Given the early warmth this year, I expect to see frost damage on leaves in May—I've already seen some on aspen leaves in Rhinelander. Regarding the vacant Insect & Disease Specialist vacancy in Spooner, I have heard nothing thus far of filling it. Keep in mind the vacancy Scanlon left in Rhinelander took 5 years to fill.

–Brian Schwingle

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Forest Health News Across NOR

Ips Bark Beetles Out Early

It is no surprise this year that Ips bark beetle females were laying their eggs on April 6, and most certainly before, north of Tomahawk in Nokomis. Usually we say April 15 is the date to watch for them. Even though this news is late now, it still isn't too late for some of you to remove those 2011 tipped over red pines that still are barely gripping onto life with a couple strained roots.

Figure 1. A potential brood tree for Ips bark beetle—still living but dying slowly.

Tamarack Mortality From Eastern Larch Beetle

Reports from loggers and foresters have been trickling in the last few years about how all the tamaracks are dying. Well, they aren't all dying, but there are many scattered infested tamarack stands around. A few are heavily infested, and these should be regenerated as soon as possible. The majority of stands with infestations have scattered areas of infested trees usually comprising 10% or less of the stand. I recommend checking out your largest and oldest tamarack stands now via aerial photographs—mortality from eastern larch beetle shows up in those photographs. This pest can be quite aggressive, "moving through a stand like a slow fire," as my counterpart in Minnesota put it. At other times, it kills small pockets of tamaracks and behaves itself.

Figure 2. See the red-barked trees? They are Eastern Larch Beetle-infested tamaracks, easily seen in the winter.

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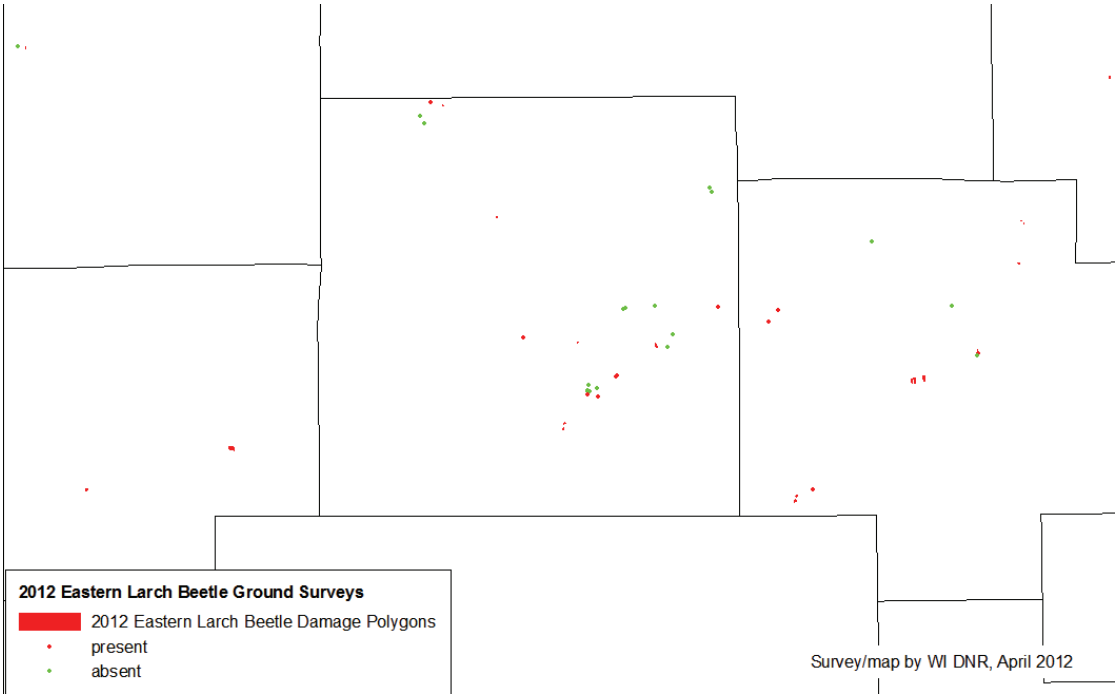

Figure 3. Map showing ground surveyed stands for eastern larch beetle damage in 2012. This area, centered on Lincoln Co., was the general area surveyed. Green dots represent no damage. Red areas are either infested areas or infested trees.

Phomopsis Galls on Oaks

Ever since I've worked in Rhinelander, I've noticed Phomopsis Galls on northern red oaks scattered widely around the area. It certainly is an interesting disease and deserves some deep thoughts, as Jack Handy would say. From an in-depth survey of one stand I did, it does not seem to be spore disseminated or controlled by genetic susceptibility. I suspect the cause, whether or not it's even Phomopsis (I remain unconvinced by the original research), is insect vectored.

For control, there are no answers. Since this disease can be quite terrible in small areas (e.g. 0.1 acres) and on individual trees, those heavily infested trees should be considered high risk. See the accompanying picture for what I define as heavily infested. Not all galled oaks are high risk by any means.

Recently I've learned this disease on northern red oak is spread widely in Wisconsin: Vilas, Oneida, Oconto, Shawano, Clark, Wood, Barron, and Polk counties at least. It is nearly always present on bitternut hickories, but that's a different less interesting story.

Figure 4. An oak with large, older Phomopsis galls in its crown. The crown appears to be declining due to these massive galls; therefore, it could be considered high risk.

Figure 5. Five of 6 oak stump sprouts with heavy Phomopsis gall infection. This suggests genetic susceptibility may not play a part in disease distribution. The infested saplings will almost certainly not make it to be sawlog-sized oaks, or even poles.

Other Oak Galls

Galls on oaks are as common as pimples on a teeny-bopper. Check out the photo collage on the next page for some samples and causes. This is a very small sample of the diversity of oak galls. Typically, galls are not a threat to the tree's life, although as mentioned in the previous article, Phomopsis galls can kill. From my understanding Horned Oak Galls also can kill, and my assumption is those trees are almost always in ornamental settings. See this U. of MN link for more pictures/information about galls on oaks. UW Extension's Green Industry's website also has a great webpage on oak galls.

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Figure 6. Large Oak Apple Gall, caused by a wasp (photo credit: J. Solomon, USFS, Bugwood.org).

Figure 7. Horned Oak Gall, caused by a wasp (photo credit: W. Fountain, U. of Kentucky, Bugwood.org).

Figure 8. Oak Bullet Gall, caused by a wasp (photo credit: S. Katovich, USFS, Bugwood.org).

Figure 9. Oak Lobed Gall, caused by a wasp (photo credit: Wayne and Leslie Wallander, Newton, WI).

Spruce Disease Epidemic of 2011

What do you get when you combine a bunch of pretty weak fungal pathogens on spruce and some weird weather phenomena? One ugly looking spruce.

Last year there was what I'll call a spruce disease epidemic throughout lower Michigan and the lower 3/4 of Wisconsin. It was common on ornamental white, Colorado blue, and Norway spruces. I never wrote about it in previous newsletters, because it did not occur in north-central Wisconsin. I recently have grown suspicious that it may have happened in northwestern Wisconsin though.

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Basically, a needle/branch disease suddenly appeared severe on the lower portion of spruce crowns; sometimes up to 80% of the lower part of the crown was lost. An MSU article put much blame on the fungal branch pathogen Phomopsis (no doubt a different species than that blamed for causing galls on oaks and hickories). My counterpart Linda Williams summarized the situation nicely in her Oct., 17 2011 newsletter.

What to do for ornamentals? Prune out the lower crown, destroy branches, and apply a protective fungicide if and when appropriate.

What to do for spruce plantations that have such symptoms (of which you all have been dealing with for years and years)? It's all about keeping spruce with live crown ratios of 40% or more baby! Read this fantastic research article out of U. of MN.

Figure 10. Sudden and severe disease on spruce occurred in much of lower Michigan and central/southern Wisconsin in 2011. It seems it also occurred in northwestern Wisconsin in some areas.

The Positive Corner

Sick of reading negative agency newsletters? Roll out on the wrong side of bed? Deer get your repro.? Here's a place to come when you need cheering. Revel in the overwhelming positiveness of The Positive Corner.

1. It appears there may be some native ash individuals that are tolerant to Emerald Ash Borer. Various researchers are surveying and testing these lingering ash in lower Michigan. Some of this positive news is presented in this 10 MB PDF.
2. EAB-killed ash are sucker-sprouting and producing seeds in some stands in lower Michigan. Hip, hip, hooray!!! Read a short description of this positive research in the bottom paragraph of this webpage.

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Odds & Ends

Oak Wilt and Public Service Commission Rule 113.0511

Just a reminder that a public utility in a rural area in a county confirmed with oak wilt may cut oaks during non-emergencies between April 15 and July 1 if they apply pruning paint or herbicide to the stump. In urban/residential areas in oak wilt-confirmed counties, they cannot cut during those periods if there is no emergency.

If you suspect a utility is in violation of these rules, you can file a complaint with the PSC at http://psc.wi.gov/consumerInfo/complaints/index-complaints.htm or by calling 1-800-225-7729 or by writing Public Service Commission of Wisconsin / P.O. Box 7854 / Madison, WI 53707-7854.

Invasive Species Awareness Month

—by Linda Williams, April 2012

The U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) has declared April "invasive species awareness" month. The USDA urges the public to visit www.HungryPests.com to learn more about invasive pests and what they can do to help prevent the spread of these threats. Some suggestions they had included:

- Buy Local, Burn Local. Invasive pests and larvae can hide and ride long distances in firewood.
- Plant Carefully. Buy your plants from a reputable source and avoid using invasive plant species at all costs.
- Do Not Bring or Mail fresh fruits, vegetables, or plants into your state or another state unless agricultural inspectors have cleared them beforehand.
- Cooperate with any agricultural quarantine restrictions and allow authorized agricultural workers access to your property for pest or disease surveys.
- Keep It Clean. Wash outdoor gear and tires between fishing, hunting or camping trips.
- Learn To Identify. If you see signs of an invasive pest or disease, write down or take a picture of what you see, and then report it at www.HungryPests.com.
- Speak Up. Declare all agricultural items to customs officials when returning from international travel. Call USDA to find out what's allowed:
- (301) 851-2046 for questions about plants

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- (301) 851-3300 for questions about animals

Forest Health Links

- Mountain Pine Beetle increasing number of generations out West
- MN's Forest Pest Detector Manual (GREAT publication!)
- WI DNR's 2011 Forest Health Annual Report (6 MBs) (also great, of course)

Forest Health in Other Parts of Wisconsin (and lower MI)

- Easter Tent Caterpillars making tents — all over Wisconsin
- Purple EAB traps going up — all over Wisconsin
- Gypsy Moths hatch(ing)(ed) — southern/central Wisconsin
- Hemlock Woolly Adelgid found again—southwestern lower Michigan

Forest Health Websites and Phone Numbers

- EAB Reporting:
  (1) 1-800-462-2803
  (2) email DATCPEmeraldAshBorer@wisconsin.gov
  (3) online at http://emeraldashborer.wi.gov (click on **Report EAB** on the top menu)
- EAB Information: http://emeraldashborer.wi.gov
- Gypsy Moth Reporting:
  (1) 1-800-642-MOTH
  (2) email DNRFRGypsymoth@wisconsin.gov
- Gypsy Moth Information: http://gypsymoth.wi.gov/
- Forest Health Issues: http://dnr.wi.gov/topic/ForestHealth/
- Sick Tree Diagnostic Keys:
  http://www.extension.umn.edu/gardeninfo/diagnostics/index.html (**GREAT!**)
  http://greenindustry.uwex.edu/diagnostics/index.cfm
- Forest Insect and Disease Handouts for Landowners:
  http://council.wisconsinforestry.org/invasives/pdf/Appendix-G.pdf
- Oak Wilt: http://dnr.wi.gov/topic/ForestHealth/OakWilt.html
- Annosum Root Rot: http://dnr.wi.gov/topic/ForestHealth/AnnosumRootRot.html

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Back page: The Eastern Larch Beetle—so tiny, yet so potentially harmful.

Front page: A frequent inhabitant of recently killed pines and a member of the beetle Boridae family. Despite it's ferocious looks, it mainly eats decaying cambium and fungi. Thanks to Mike Hillstrom and UW staff for help with identification.

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Note: This pest report is an informal newsletter and covers forest health issues in the northern 18 counties of Wisconsin. The purpose of this newsletter is to provide forest owners and managers in the Northern Region with regional up-to-date forest health information. I welcome your comments/suggestions on this newsletter *and your reports on forest health problems you observe in your area*. If you would like to subscribe to this newsletter, please contact Brian Schwingle at brian.schwingle@wisconsin.gov. Previous issues of this newsletter and regional forest health updates from other Wisconsin regions are available at http://dnr.wi.gov/topic/ForestHealth/Publications.html .

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