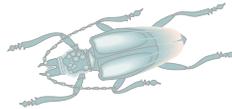


# Northern Region Forest Insect & Disease Report

*Wisconsin Department of Natural Resources  
Division of Forestry*

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## **Western NOR Report – by *Shane Weber***

### **Fall Wrap-up and Winter Forest Health Contacts**

The fire of fall is almost out. The last glowing embers of a spectacular autumn reside in the fading gold of our tamarack swamps. The forests of NW Wisconsin enter winter in good shape after our first wet summer in 6 years. There were no significant populations of fall defoliators in our hardwoods. The conifer forests of the northwest are almost entirely lush and (for a change) green. The one unfortunate exception is the area of hail pocked plantations south of the Gordon Flowage (43-12). The only major shadow of fear lies in the armies of forest tent caterpillars rising to our north and west.

This northwest outpost will be going dark temporarily as I am about to embark on a spiritual retreat to the grottos of northwest Alabama. I plan to return as an enhanced, enlightened entomologist next May. Until such time as I return (if any), Todd Lanigan (715-839-1632) by virtue of his great heart and courage will handle Douglas, Bayfield, Polk, Barron, Washburn, and Burnett Counties while Brian Schwingle (715-365-8908) by virtue of his superior brain will handle Ashland, Sawyer, and Rusk Counties. Trust them as you would me.

Hasta Luego Amigos,



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## **Eastern NOR Report – by *Brian Schwingle***

### **Oak Wilt Confirmed in Oneida County for the First Time**

Oak wilt was discovered for the first time in Oneida County in July 2010 on a single northern red oak. Laboratory confirmation of the fungal cause of oak wilt, *Ceratocystis fagacearum*, occurred in August (thanks to Kyoko!). The infected tree is about 4 miles southeast of Eagle River and 3 miles west of the Chequamegon-Nicolet National Forest.

The property owner first alerted USFS & DNR personnel that her oak was wilting in mid-July. In late July, 50% of the tree's crown was wilted, and over the

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following 17 days, the tree lost essentially all its leaves. The oak was pruned in May 2010, which was the avoidable, unfortunate, action that helped infection.

I surveyed all dead and dying oaks on all roads within ½ mile of the infected oak, and roads up to 3 miles away. No oaks were found that wilted in 2010. However, two oaks, both within 300 m, may have died from oak wilt in 2008 or 2009. Unfortunately, the wood of these oaks was decayed and unsuitable for oak wilt detection, and there were no indications of spore pads that had formed on the bark. Besides these two oaks, the survey revealed four areas, totaling 180 acres, where over 50% of the oaks had light to moderate dieback, presumably from stress instigated by several years of forest tent caterpillar defoliation followed by several years of drought. An additional 50 oaks were identified in the survey that had died in the last two years. Signs of twolined chestnut borer were found on some of these dead oaks, and none of the surrounding living oaks showed signs of wilt. I plan on doing aerial detection flights over this area in July 2011 to try and find other potential oak wilt centers.



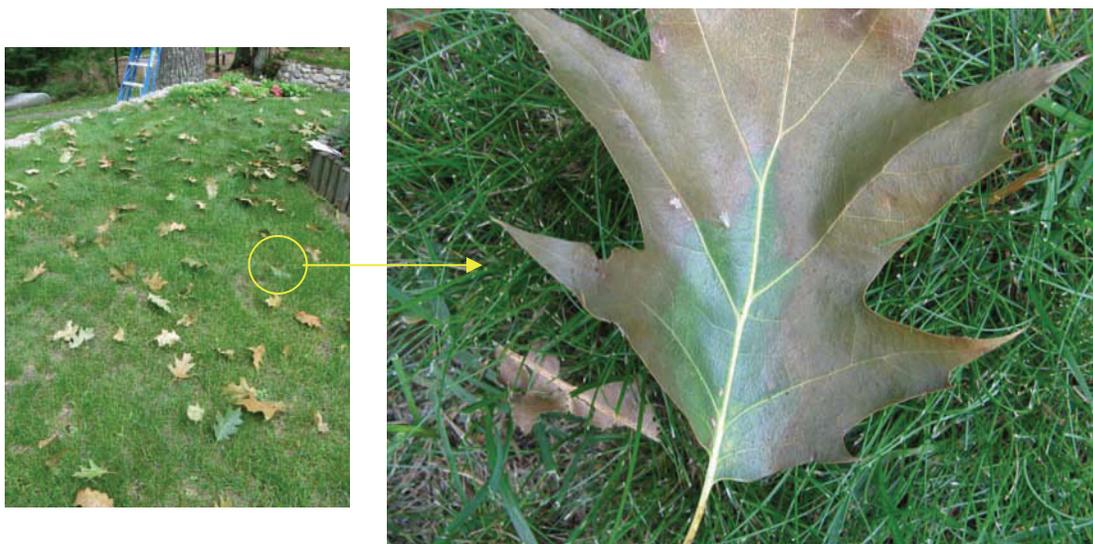
*Figure 1. Oak wilt causing leaf loss to the Oneida County oak in July (left) and 2 weeks later (right).*

In terms of controlling the overland spread of oak wilt from the infected tree, the property owner plans on removing the oak in the winter of 2010-2011 and destroying the material. There are 11 oaks that are likely root-grafted to the infected oak on adjacent property. The owners of those 11 oaks plan on severing the roots between them and an additional 8 oaks. They will monitor the 11 oaks that are root grafted over the next several years and hopefully remove/destroy them before the April following potential wilt.

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This first discovering of oak wilt near the Northern Highland American Legion State Forest threatens approximately 15,000 acres of oak forest and 14,500 acres of northern hardwood forest (i.e. the northern red oak component) on that property. Forest managers in Vilas, Oneida, and Forest counties should restrict harvesting in oak forests from April 15 to July 15 to avoid potential overland oak wilt introduction into those forests. Read more at <http://dnr.wi.gov/forestry/Fh/oakWilt/>. Please review the forest management guidelines at <http://dnr.wi.gov/forestry/fh/oakWilt/guidelines.asp>.



*Figure 2. Red oaks with oak wilt often rapidly lose their leaves in mid-July (left). A closer view of a shed leaf (right) reveals typical leaf symptom of oak wilt—bronzed margin with green interior.*

## Second Oak Wilt Center Found in Langlade County

Oak wilt was first confirmed in Langlade County in 2008 in the southeastern corner of the county. A second oak wilt location was confirmed in the county in 2010. This spot is in the central part of the county on Langlade County Forest land southwest of Pearson 4¼ miles in the eastern part of Upham township.

In this recently discovered oak wilt-positive stand, 2 northern red oaks died from oak wilt this year, and 4 adjacent oaks died, presumably from oak wilt, in either 2008 or 2009. The infected oaks will be cut and destroyed before next April to prevent overland spread. There are several oaks that are root grafted to the infected oaks, so root graft disruption would help prevent this oak wilt pocket from

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enlarging. Unfortunately, it will not be possible to sever root grafts with a trencher or vibratory plow, so stumps will have to be removed with an excavator or managers will have *to try* to kill root grafts with herbicides, which is an experimental control tactic at this point.

### Oak Wilt Lookalikes—Twolined Chestnut Borers & Oak Spider Mites

After the press release about the new oak wilt find near Eagle River, many tree owners called reporting their oaks were dying from oak wilt. Here are a few key questions to troubleshoot these callers that you can try if you want:

1. Did the oak go from completely healthy to completely dead *this year*?
2. Are the sick branches/leaves located on the top of the tree crown?
3. Did the oak drop nearly all its leaves in 1 or 2 months?
4. Is the oak a red oak (the ones with sharply pointed leaves)?

If the tree in question is in the red oak group and all of the answers to the first three questions are *yes*, there is reason to believe the oak *may* have oak wilt. Most of the citizens calling me were reporting twolined chestnut borer (TCB) or spider mite damage. TCB usually takes multiple years to kill an oak, and oftentimes, dead leaves remain on the tree. An oak infested with oak spider mites may have bronze-looking leaves, but they probably won't be dropped during mid-summer as they are with oak wilt.

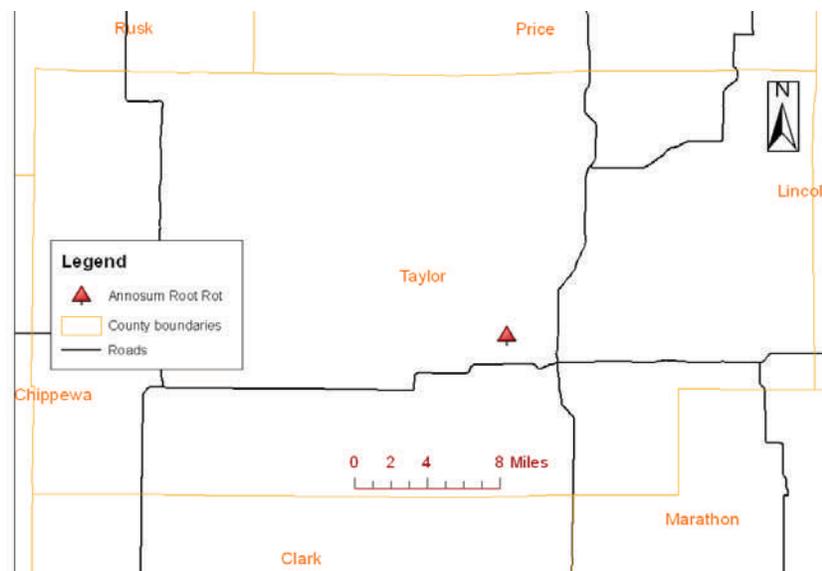


*Figure 3. An oak leaf infested with oak spider mites.*

## Annosum Root Rot Confirmed in Taylor County

Is Annosum Root Rot the end of the world for red pine plantations in Wisconsin? No. However, Annosum Root Rot *in Wisconsin* does kill red pines (and probably other conifers....at least), so if you can prevent it, why not do it? For a detailed progress report on an economic analysis of Annosum control, see [http://dnr.wi.gov/forestry/Fh/annosum/pdf/Annosum %20Economic Analysis.pdf](http://dnr.wi.gov/forestry/Fh/annosum/pdf/Annosum%20Economic%20Analysis.pdf). Annosum was confirmed this October in Taylor County. It is the only known location of the disease in the area (see <http://dnr.wi.gov/forestry/Fh/annosum/index.htm>)

Spores of *Heterobasidion* (causal fungus of Annosum Root Rot) *likely* landed



on a freshly cut stump in the Taylor County plantation (see map above) during its second or third thinning (1993 or 2005). As to when it first produced conks (to produce spores, to infect other Taylor County red pine stumps) is unknown. However, it did produce conks in 2010 that are currently dropping germinating spores, so freshly made red pine stumps in the area are potential growth portals for this infection. There are probably other Annosum Root Rot infection centers in Taylor or surrounding counties.

Annosum root rot can be prevented by applying one of two registered products to freshly cut red pine stumps. Forest managers in Taylor County and all bordering counties should consider Annosum preventative tactics. Management details are at <http://dnr.wi.gov/forestry/Fh/annosum/index.htm>.

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*Figure 4. Fruiting bodies (conks) of Heterobasidion, causal fungus of Annosum Root Rot, on a Taylor County red pine stump. An adjacent red pine had a thin crown with dead and dying branches (Photo by Russ Aszmann, Taylor Co. Forest Assistant Admin.).*

### Little to No Gypsy Moth Defoliation Predicted for Eastern Langlade Co.

Gypsy moth egg mass surveys in eastern Langlade County indicate the oaks can breathe easy in 2011. There shouldn't be any large areas of defoliation like there were in 2010 *because of gypsy moth caterpillars (GMs)*. The question remains for forest tent caterpillars (*FTCs*) though. At this point, it is unknown whether or not the sopping mid-summer promoted disease in the *FTC* population like it did in the *GM* population, and it is unknown if the *FTC* population has the potential to cause defoliation in 2011.

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## Odds & Ends

### White Pine Needle Loss, Take 2

In the [December 2009](#) issue of the Northern Region Forest Health Report (pg. 4), I wrote an article about 2-year-old needle loss in white pines. I explained

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how there was inconsistency in on-line sources reporting what age white pine needles are when they are shed. I suggested the 2009 needle loss of those needles may have been promoted by widespread drought. In response to that article, Chris Rucinski wrote me that in his 29 years working in Barron County, white pines always lose their 2-year-old needles. I'm glad someone is keeping track! Thanks for the note Chris!

## Forest Health in Other Parts of the State

- Silver Maple Dieback—Southern Region
- High Gypsy Moth Egg Mass Numbers—Marinette, Menominee, Oconto and Shawano Counties
- New DNR Forest Health Staff—Mike Hillstrom, covering the Central Sands, based out of Wisconsin Rapids, starting November 8

## Noteworthy Forest Health Links

- 2011 Pesticide Applicator Training Schedule:  
<http://ipcm.wisc.edu/LinkClick.aspx?fileticket=cu%2fHP3%2fGh0A%3d&tabid=95&mid=516>

## Forest Health Websites and Phone Numbers

- EAB Reporting:
  - (1) 1-800-462-2803
  - (2) email [DATCPEmeraldAshBorer@wisconsin.gov](mailto: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](mailto:DNRFRGypsymoth@wisconsin.gov)
- Gypsy Moth Information: <http://gypsymoth.wi.gov/>
- General Forest Health Issues: <http://dnr.wi.gov/forestry/Fh/>
- Sick Tree Diagnostic Keys:
  - <http://www.extension.umn.edu/gardeninfo/diagnostics/index.html>
  - <http://greenindustry.uwex.edu/diagnostics/index.cfm>
  - <http://imfc.cfl.scf.rncan.gc.ca/accueil-home-eng.html> (this is very useful!)
- Forest Insect and Disease Handouts for Landowners:  
<http://council.wisconsinforestry.org/invasives/pdf/Appendix-G.pdf>
- Oak Wilt: <http://dnr.wi.gov/forestry/Fh/oakWilt/>
- Annosum Root Rot: <http://dnr.wi.gov/forestry/Fh/annosum/>

# FOREST TREE & DISEASE CONTACTS

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Ashland, Florence, Forest, Iron,  
Langlade, Lincoln, Oneida, Price,  
Rusk, Sawyer, Taylor, & Vilas  
counties

Barron, Bayfield, Burnett,  
Douglas, Polk, & Washburn  
counties



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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. We 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](mailto: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/forestry/FH/intheNews/>.