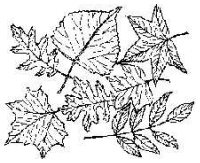
Central States Forest Health Watch



Current forest health information for land managers in Illinois, Indiana, Iowa and Missouri

July 30, 2004

About This Newsletter…

This collaborative effort of the USDA Forest Service Northeastern Area, Missouri Department of Conservation, and Indiana, Iowa and Illinois Departments of Natural Resources will provide updates three times per year (Spring, Summer, Autumn) on forest health issues of regional interest.

Important Regional Forest Health Issues

Below you will find updates some of our "most popular" exotic forest pests: Sudden Oak Death, Emerald Ash Borer, and Banded Elm Bark Beetle. We are currently in trapping season for gypsy moth, and 2004 treatments have been completed. We will have a summary of 2004 treatments and trapping results in the autumn edition.

Sudden Oak Death

SOD surveys of forested areas are underway in MI, WI, MN, OH and MO, and soon to be in IN, IL and IA. Based on the risk assessment, 15 plots are being visited in OH, IN, IL, and IA, 30 each in MI, WI, MN and MO. Michigan State University is conducting the survey in MI, DNR's in WI and MN, University of Missouri in MO, and Francis Ockels, graduate student under Enrico Bonello of Ohio State, is doing the work in OH, IN, IL, and IA. We received considerable help from our state contacts in locating plots near businesses identified in the APHIS trace forwards as having received stock from Monrovia Nursery. There have been no positive samples identified to date from the forested area surveys in the East. The most recent updates on the status of the national survey are available at: http://www.aphis.usda.gov/ppq/ispm/sod/ There have been some positive SOD samples in the East from nursery surveys, but so far no positives have been found in the Central States

Emerald Ash Borer

The EAB survey continues in the northern half of Indiana without an additional location detected at this time. The landscape tree and campground surveys are in progress with approximately half of the cities and campgrounds visited. Sawmill surveys are in progress again with approximately half of the mills surveyed. Trap trees have been established at 160+ locations in Steuben, DeKalb, LaGrange, Noble and Allen counties totaling 364 trees. The third week of July purple panel traps supplied by APHIS were set near selected trap tree locations and at the two known sites - Steuben County, Jamestown Township (Jellystone site) and LaGrange County, Clay Township (Shipshewana site). EAB emerged on May 26 and continues to emerge at this time from trap trees at the two known sites. At this time plans are in progress to conduct eradication at Shipshewana and complete the eradication at Jellystone. Only the ¼ mile radius of Jellystone had ash removed in May. The next ¼ mile ring needs to have the ash removed. The eradication goal is to chip and burn all ash by May 1, 2005 in approximately 500 acres (estimated) of forest, wetlands, fencerows and landscape in the two sites. One of the EAB surveyors works with bloodhounds and is attempting to train 'Eddie' (her dog) to detect EAB. Eddie detected EAB in preliminary tests 85% of the time when using adult frass placed under hidden objects. The training continues with plans to test Eddie at the known sites.

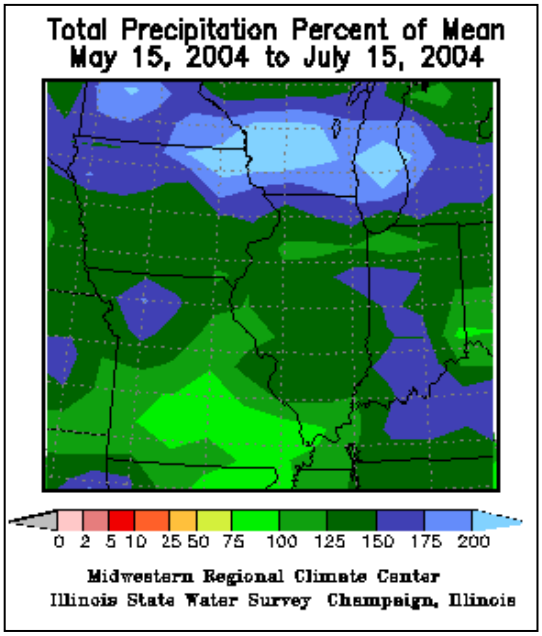
Additional surveys to detect EAB infestations are underway in Illinois, Iowa, and Missouri. So far no evidence of EAB has been reported in any of these states. In Illinois, many of the stressed ash trees encountered so far have suffered from lawn mower injury.

Banded Elm Bark Beetle-- *Scolytus schevyrewi* (Coleoptera: Scolytidae)
In the May 2004 newsletter, an introduction was given for the band elm bark beetle (BEBB), a newly detected beetle from China. At that time, BEBB was confirmed in 12 western states and in Illinois at 2 locations -- St Clair and Madison Counties (near East St. Louis). Early results from exotic bark beetle surveys in 2004 have detected BEBB in 2 more counties in Illinois (Peoria and Champaign), Michigan (Wayne County), Minnesota (Anoka County), and Maryland (Prince George's County). The jury is still out on this species becoming a significant pest in North America. However, it is amazing that an exotic insect goes from first detection (April 2003) to 15 states from coast to coast with detections in less than 1½ years. A distribution map for BEBB detections can be found at:

http://www.ceris.purdue.edu/napis/pests/barkb/imap/schevy.html

Weather Overview

The good news is that at this writing, there are no significant regional drought areas to report in the Central States. You can check it out for yourself at the National Drought Mitigation Center's website at http://www.drought.unl.edu/dm/monitor.html .
The rainfall from May 15 to July 15 across the region was mostly 100% or greater than normal. Of course, excess moisture presents it's own suite of problems with flash flooding, waterlogged soils, foliage diseases, and storm damage. Our feature article this month is on preparation and response to storm damage (see page 4).



Above average rainfall in March, May and June has ended the 2.5-year drought in northwestern Missouri. With the rain came many severe storms during late May in many locations across Missouri and many reports of hail, wind and flood damage. An outbreak of tornadoes occurred in northwest Missouri. Severe storms during June in the St. Louis area damages many white pines. In Iowa, saturated soils have caused leaf yellowing in river birch and some oak.

A Look into the Crystal Ball…

Cicadas won't be back to Indiana for 17 years. Questions have stopped and the flagging is fading from a red brown to a brown color and thus is not as obvious. Damage occurred across the state with most of the damage in south central Indiana.

Nothing more has been reported in the "clairvoyant" category.

What else is being reported across the Region

The Missouri Department of Conservation has received several calls regarding **bleeding post oaks** which individuals suspected SOD. Fortunately, in all instances so far the malady was instead **bacterial slime-flux**. It seems that many relatively minor or common pests are accosting oaks this season. Several samples of pin oak in Missouri are being tested for **bacterial leaf scorch. Horned oak galls** and **gouty oak galls** continue to be reported at high levels on pin oaks and shingle oaks in Missouri, especially in the St. Louis area. These branch galls, created by Cynipid wasps, build up in numbers over time resulting in increasing branch dieback and tree decline. Indiana also reports more calls about gouty oak and horned oak galls on pin oak and red oak this spring and summer than at any other time.

Japanese beetle populations remain at high levels around St. Louis and Springfield, MO. This exotic scarab was first detected in New Jersey during 1916. It has spread throughout the eastern US, and populations are increasing in the Central States. Indiana, Illinois, and Missouri are regulated, and Iowa has 3 counties (Dubuque, Linn & Scott) listed as infested. Adults feed on leaves of ornamental trees and shrubs. Larvae (white grubs) feed on plant roots, and they can cause damage to turf. To prevent long range movement, cargo airports with high beetle populations are put under restrictions during the adult flight period (e.g., Indianapolis Airport has been regulated since 1995 during July and August).

Larva of loblolly pine sawfly. *Photo by RKL.*

The **loblolly pine sawfly** caused isolated pockets of severe defoliation of shortleaf pine and a few planted loblolly pines across southern Missouri. The widely scattered pockets consisted of one to 50 trees each.

Loblolly pine sawfly populations can be extremely heavy on just a few trees, causing near complete defoliation. However, they feed primarily on previous year's foliage, usually leaving the new expanding needles. Tree mortality does not normally occur from one year of defoliation by these insects, although trees will be stressed and more vulnerable to other insects (e.g. bark beetles) and diseases. Growth loss often occurs. See these web sites for more information:
http://www.fhpr8.fs.fed.us/idotis/insects/lbpinsaw.html
http://www.forestpests.org/southern/Insects/loblolly.htm

Loblolly pine sawflies look similar to European pine sawflies, except the loblolly variety has a reddish-brown head, instead of black. There is only one generation of loblolly pine sawflies per year.

Branches defoliated by loblolly pine sawfly. *Photo by RKL.*

The **hemlock woolly adelgid**, an exotic insect pest not normally seen in the Central States, was found on an ornamental hemlock growing in Springfield, MO, in late June. Tree care company employees recognized the cottony masses as potentially being the hemlock woolly adelgid and reported it to a Missouri Department of Conservation forester. Only one of five hemlocks planted three years ago at a suburban residence appeared to be infested. Hemlocks are rarely planted in Missouri, so this introduction of the adelgid is not a threat to Missouri trees. Nevertheless, the incident does demonstrate: 1) how easily exotic pests can be moved even to unlikely locations, and 2) the value of having tree care professionals who are knowledgeable about exotic pests.

District foresters from the Iowa DNR closely monitored **decline of white oak** on 3 sites in eastern Iowa this spring. They were able to document the onset of oak tatters, temperature events, and local agricultural activities. Crown samples will be collected in August to test for oak wilt disease, and basal increment cores will be cultured for Ganoderma this fall.

Phil Marshall received three reports of **white oak mortality** from across Indiana, which is rare. Examination of two of the sites found sawtimber size white oak attacked by Two-Lined Chestnut Borer. It is not common to find or receive reports of white oak dying in the forest. First concern was SOD, however there was no bleeding on the trees. One site was an established wooded backyard that had one tree dead and two trees with the top half of the crown dead and remainder alive but fading. The second site was a forest with a pocket of white oak dead and showing thin crowns. In each case it was only the white oak affected and there was no origin for TLCB such as lightning struck tree or other suppressed trees dying. In both sites,

Armillaria root rot was not detected in the root flares. These sites appear to be a direct attack and killing of white oak by TLCB without any other stress factor involved, which is not a common occurrence in Indiana.

A higher level of **dieback of urban soft maple** than usual has been observed in Iowa this spring and early summer.

Feature Topic: When Storms Strike

Summer brings the expectation that storms will occur SOMEWHERE in our region and cause damage to trees. As natural resource managers, you can minimize the impact of these storms by planning for the "unexpected", and by efficient, effective cleanup. The article below summarizes how communities can effectively plan for a disaster, and a section after the article provides web links to useful information for storm cleanup.

Natural Disaster Planning for Communities

By Lisa L. Burban, Urban Forester — USDA Forest Service, Northeastern Area

For communities, disaster planning is critical for success before, during, and after a storm event. Natural disaster planning must be a dynamic and flexible process because of the unpredictable nature of natural disasters. Urban and community forestry planning must recognize that as trees grow and mature, their needs change. Newly planted, young trees must be cared for to ensure good form and strength. Older, mature trees must be maintained to ensure health and reduce hazard.

Several types of plans may be useful in the event of a natural disaster, depending on who is involved. These plans include:

- Tree Emergency Management Plan – serves as the guiding document for managing the tree resource in a community before, during, and after a storm. An on-line planning template is provided at: http://www.na.fs.fed.us/spfo/urbanforestry/ucfdisasters/tree_emerg_plan/TreeEmerPlanWkSheet.htm
- Comprehensive Urban Forestry Comprehensive Management Plan – serves as a guide for tree planting and maintenance needs, including critical activities such as hazard tree removal, tree pruning cycles, and annual tree care needs.
- Community Tree Risk Management Plan – provides a community with a systematic approach to accurately identify moderate to high risk trees, and initiate the timely removal or corrective treatment of hazardous trees. Go to http://www.na.fs.fed.us/spfo/pubs/uf/utrmm/index.htm for additional information.

Planning for a Community: Disaster planning is critical for successful response if a disaster strikes. For most communities, it's not a question of "if" a storm will occur; rather, it's a question of "when." Communities that are prepared for storm events will respond more effectively and will likely recover more rapidly. Planning allows for anticipation of needs, prioritization of activities, and appropriate use of staff and equipment. Planning will vary among communities, depending on the size of the community, the budget, staff, and available equipment.

Planning Keys to Success for a Community:

- Identify a core group to develop the plan that includes all possible participants of disaster planning, response, and recovery activities.
- Coordinate your tree-related plan with other community emergency plans.
- Assign administrative responsibility to all components of the plan.
- Review and update the plan annually.
- Provide adequate training for everyone involved.
- Know your priority actions and needs.

Recommended Planning Activities:

- Collect and maintain tree-related documentation. Consider a tree inventory or, if you cannot complete an inventory, annually inspect trees for hazards.
- Collect and maintain phone numbers for assistance.
- Develop a Memorandum of Understanding and/or mutual aid agreement with surrounding communities.
- Locate and identify any trees or natural areas of special significance. Identify appropriate locations for debris staging and processing.
- Keep up-to-date maps and land use plans.
- Develop a tree salvage plan and utilization plan.
- Anticipate/prepare for loss of normal means of communication. Identify alternative methods, including, cellular phones, 2-way radios, and ham radios.
- Develop work schedules for staff members in the event of an emergency.
- Identify and/or develop written or video Public Service Announcements (PSA's) prior to a natural disaster so that they can be released immediately. The National Arbor Day Foundation has developed a "Storm Recovery – Trees" media kit (www.arborday.org).
- Develop formats for post-disaster workshops for citizens.
- Identify activities for trained volunteers. Many individuals and organizations will want to offer assistance after a disaster.

Web Links to aid in storm cleanup…

Guides to provide direction for cleaning up storm damage are posted on the web at: www.treelink.org . Go to the Treelink site, then click on "weather", then click on "storm damage".

For the Forest Service's Storm Damage Resource Center which includes a protocol for storm damage assessment, go to: www.umass.edu/urbantree/icestorm/index.html .

Bulletins on How to Care for Storm Damaged Trees. This set of nine bulletins for homeowners was compiled by the Vermont Department of Forests, Parks and Recreation following the 1998 ice storm. www.state.vt.us/anr/fpr/forestry/ice/intro.htm .

Upcoming Opportunities

Annual Gypsy Moth Review Meeting, November 8-11, 2004, Indianapolis Downtown Marriott Hotel, Indianapolis, IN. For additional information and registration information contact Phil Marshall.

This newsletter is also available on the WWW at:

www.na.fs.fed.us/spfo/pubs/newsletters/csfhw

For More Information:

Forest Health Protection
USDA Forest Service
1992 Folwell Avenue
St. Paul, MN 55108
(651) 649-5029
lhaugen@fs.fed.us