



Wisconsin Urban & Community Forests

A Quarterly Newsletter of the Wisconsin Department of Natural Resources, Forestry Division

Beyond Beautification: Environmental Benefits of Community Trees

by Cindy Casey
DNR West Central Region

This is the first in a series of articles on the benefits of urban trees, taking you "beyond beautification." – Editor

The decline of urban forests is a nationwide problem, and a key reason is that the benefits of community trees are not widely understood. Many communities don't have tree programs and those that do often face inadequate support or program cutbacks because urban forests are not commonly recognized as infrastructure. The predominant association tends to be with beautification. Indeed, the terms "amenity" and "ornamental" are often ascribed to trees in the urban landscape. Little wonder, then, that when local budgets are tight, tree programs lose out to those services commonly understood to be essential, such as police and fire protection, snowplowing and road repair. The value of urban and community forests must be more universally understood if tree programs are to



Trees are typically scarce and heat-trapping manmade materials are abundant in downtown areas, causing summer temperatures to be hotter than in the surrounding countryside.

Photo by C. Casey, WDNR

flourish. Functional benefits must be emphasized over mere beautification.

One of the strongest arguments in favor of community trees is their role in improving the urban environment. Abundant, healthy trees provide shade, cool the air, moderate storm water flow, reduce erosion, counter air pollution, reduce glare and block wind—benefits that are particularly important in people-dominated landscapes.

Cooling

Atmospheric carbon dioxide has increased by slightly more than one part per million per year over the last 50 to 60 years. This is significant because carbon dioxide and other "greenhouse" gases in the atmosphere are thought by many scientists to contribute to the phenomenon known as global warming. By absorbing carbon dioxide from the air during photosynthesis, trees directly reduce one of the primary gases associated with global warming. Secondly, when trees are sited properly—shading west walls and air conditioning units—air conditioners run less and run more efficiently. With less use of air conditioners, less carbon dioxide is emitted by fossil fuel-burning power plants that supply energy to run the air conditioners. A third way trees cool the air is by releasing water vapor. As water evaporates from tree canopies it consumes solar energy. Summer temperatures in cities are typically two to eight degrees higher than in nearby forested areas—a phenomenon known as the urban heat island effect—because urban areas, with comparatively few trees, have less capacity for evaporative cooling and because abundant paved surfaces absorb and store heat energy.

Pollution Filtration

Trees remove particulate and gaseous pollutants from the air—pollutants that damage human health, damage vegetation and shorten the life of manmade materials, like concrete and steel, in our built environment.

continued on page 4



Volume 10
Number 2

Summer
2002



Inside this issue:

<i>Community Profile:</i>	
<i>Oak Creek</i>	2
<i>Project Profile:</i>	
<i>Mequon's Planting & Pruning</i>	3
<i>Gypsy Moth</i>	
<i>Grants</i>	5
<i>Tree Profile: Amur maackia</i>	6
<i>Urban Tree Health Matters: Weir's Cushion Rust</i>	7
<i>What Damaged This Tree?</i>	7
<i>Coming Events</i>	8
<i>Involving</i>	
<i>Minorities</i>	9
<i>Deadlines & Datelines</i>	9
<i>Urban Wildlife:</i>	
<i>Money or Knowledge</i>	10
<i>Organization Profile: WFREA</i>	12
<i>Idea Exchange</i>	13
<i>Council News</i>	14
<i>Urban Forest</i>	
<i>Resources</i>	15
<i>DNR Urban Forestry</i>	
<i>Contacts</i>	16

Community Profile:

City of Oak Creek

by Kim Sebastian
DNR Southeast Region

2



Community Profile:

Tree City USA: since 2000

Growth Award: 2001

Population: 29,300

Street Tree Population: About 7,000

Square Miles: 29

City Maintained Areas:

Street trees

Parks/adjacent

woodlands

Boulevards

Semi-rural rights-of-way

Municipal buildings

City-owned and

leased lands

Program Profile:

Dept. Parks and

Recreation,

Forestry Div.

(developing)

Dept. Public Works,

Streets Div.

2001 Forestry Budget:

\$260,319 plus

capital funds

Equipment:

2 chippers

1 tub grinder

2 bucket trucks

1 stump grinder

1 2,000-gallon

watering truck

loaders

2001 Tree

Statistics:

Planted: 310

Pruned:

400 @ >6" dbh

1,000 @ < 6" dbh

Removed: 220

Named for the meandering creek and the predominance of oaks, Oak Creek is a natural lowland with areas of cattail marsh and remnant oak savanna. Adjacent to Lake Michigan, Oak Creek also retains a fair amount of American beech. This land drew the bison that sustained early Cheyenne and Ho-Chunk cultures. In more recent times, the fur trade supported Potawatomi and Menominee people, but the land was parceled for agriculture and development in approximately 1830. Oak Creek officially became a city in 1955. Home to some large industry and more recently office parks, Oak Creek has a strategic business location between Milwaukee and Chicago with two railroad lines, as well as I-94.

Oak Creek retained a volunteer forester as early as the 1950s. Several area apple orchard owners, aldermen and even a town mayor once wore the hat of city forester. Street trees were first planted by the city in the mid-1960s, and a few more subdivisions were tree lined by contractor plantings in the '70s. In 1995, the Department of Community Development launched an urban forestry initiative beginning with an internship inventory and the city's first DNR forestry grant. A street tree master plan with a focus on planting directly followed. In 1999, planting responsibilities shifted to the parks and recreation department.

In 2000, Rebecca Lane was hired for 1500 hours per year. She performed the original street tree inventory in 1995 and returned yearly to make street tree



Photo by Kim Sebastian, WDNR

planting recommendations and inspections. She also performed a hazard tree evaluation/inventory in the Miller Park native tree stand. The city's forestry staff now includes the city's urban forester, a certified arborist shared with park maintenance, a forestry intern and occasional assistance from other park maintenance staff.

Community forestry duties through the parks and recreation department include: all maintenance on trees planted since 1995, contract administration, community outreach, residential consultations, coordination of the maintenance schedule (pruning, removals), tree inventory and record keeping, tree preservation, tree diagnosis and correction, and many other projects and assignments.

The streets division shares some forestry responsibility and takes care of most of the large street- and right-of-way tree pruning and removals, stumping, brush pick-up, mulch and Christmas tree recycling. Streets staff includes two tree trimmers, a two-person takedown crew, and yard and brush pick-up personnel.

continued on page 8



Published quarterly by the Wisconsin Department of Natural Resources, Forestry Division.

Address inquiries to Dick Rideout, Wisconsin Department of Natural Resources, PO Box 7921, Madison, WI 53707

Editor: Dick Rideout

Contributors: Cindy Casey, Don Kissinger, Tracy Salisbury, Kim Sebastian, John Van Ells

Layout: Georgine Price



Articles, news items, photos and ideas are welcome.

Unless noted, material in this newsletter is not copyrighted. Reproduction for educational purposes is encouraged. Subscriptions are free.

This newsletter is available in alternative format upon request.

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of the Interior, Washington DC 20240

This newsletter is made possible in part by a grant from the United States Department of Agriculture Forest Service. The USDA prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. To file a complaint call (202) 720-5964.

Project Profile:

Mequon's Planting and Pruning

*by John Van Ells, DNR Southeast Region
Dave Scharfenberger, Wachtel Tree Science & Service*

The city of Mequon obtained an urban forestry grant in 2002 to transplant trees from Riverview Park and Nursery, contract out some much-needed pruning and train their personnel in proper pruning techniques.

Over 50 two- to four-inch-caliper trees were relocated from the nursery to Port Washington Road, a major thoroughfare. Additional trees were transplanted to landscape Riverview Park. The park is being developed as a passive use recreation area, with a playground and nature trails along the Milwaukee River.

The east side of Port Washington Road, where the planting strip is wide enough for canopy trees, was planted with Kentucky coffeetree, Deborah maple, Redmond linden, English oak, Rosehill white ash, Autumn Purple white ash and flowering crabs. The west side of the road has overhead wires, so We Energies assisted in planting a variety of smaller species including Amur maple, flowering crab, Leprechaun ash, and Japanese tree lilac.

One of the biggest problems for communities without full-time urban forestry staff is developing the skill level of the crews. There are only a few windows of opportunity each year where job priorities allow time for pruning, so developing proper pruning skills through repetition is difficult. To address this, Mequon's grant project brought in experts not only to train the crews, but also to work with them for a week so the training would really take hold.

A day in the middle of March was used for training. Twelve crewmembers of the parks and DPW staff spent a day with Dave Scharfenberger of Wachtel Tree Science and Service. The morning was spent learning tree biology along with the "why and how" behind pruning. The afternoon was spent outside applying the skills and looking at trees.

The next step was to have two of Wachtel's arborists, Mike Klein and Tony Milkus, work in Mequon for a week. City Forester Ken Baker selected a subdivision with a large number of trees that needed training pruning. This type of pruning was selected because the city's management plan identified training pruning as the most important need in the community.

Baker rotated all twelve people through, giving each person a full day of work. The goal was to have the Wachtel arborists start out with the Mequon crews and after a few hours have them working on their own, though the experts were always on hand to answer questions and were pruning the whole time when not teaching.

In the end, the Mequon crews received hands-on experience and new skills that they could use. Just as importantly, over 500 trees underwent training pruning to reduce future pruning expense and potential for damage, giving the community safer and healthier trees.

The subdivision's homeowners association even wrote a nice letter to Mequon telling the city leaders how very pleased they were with the way the trees were pruned and with the entire project. 🌿

3

Photo by John Van Ells, WDNR



Crews plant large-maturing trees on the side of Port Washington Road without power lines.

Photo by John Van Ells, WDNR



Mequon and Wachtel crews pause for a photo-op during their pruning operations.

Beyond Beautification

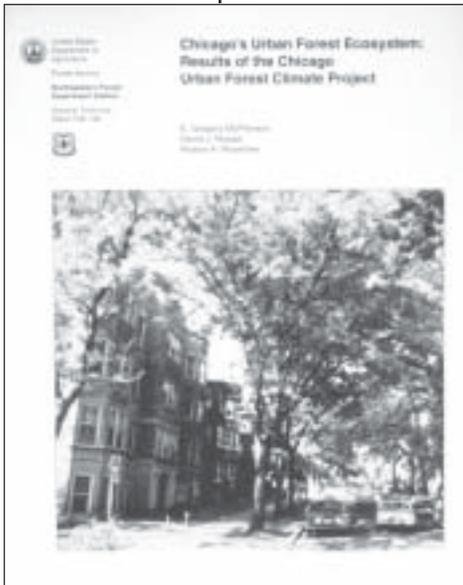
continued from page 1

Storm Water Management

Trees intercept, slow, filter and absorb storm water—water that would otherwise run off into storm sewers, lakes and streams. Planting trees, maintaining green space and reducing impervious surfaces such as pavement and concrete can reduce local flooding, soil erosion, and thermal and chemical pollution of surface water.

Chicago Urban Forest Climate Project

Completed in 1994, the Chicago Urban Forest Climate Project by the USDA Forest Service put dollars-and-cents values to some of the environmental benefits of urban trees. The study looked at just three tree values: reduced energy demand for cooling and heating, air pollution abatement and storm water control. Calculating costs and benefits over 30 years, the study found that *tree benefits outweighed costs by almost 3 to 1*; i.e., for an average per tree cost of \$219 for planting, maintenance and repairing tree-related infrastructure damage, \$621 in benefits were realized in energy savings, air pollution abatement and storm water control.



The Chicago Urban Forest Climate Project found that well-tended urban trees deliver environmental benefits worth nearly three times their cost.

Shade

We tend to think of shade solely in terms of human comfort, but there are important air quality issues as well. Volatile organic compounds (VOCs) are key contributors to smog and parked cars are a major source of these compounds. By shading parked cars, trees reduce emissions caused by the evaporation of fuel from gas tanks and VOCs from hosing and vinyl parts. In addition, ultraviolet radiation breaks down asphalt. Urban trees can extend the useful life of streets and parking lots through shading.

Wind Protection

Used as windbreaks, evergreen trees can lower winter heating costs. A 1992 publication by the US Environmental Protection Agency, *Cooling Our Communities: A Guidebook on Tree Planting and Light-colored Surfaces*, states that properly sited windbreaks reduced fuel needs in South Dakota by 40 percent!

As more and more trees are lost to development,

communities become increasingly tree deficient. Private landscapes are an important part of the urban forest, but can't, by themselves, provide trees and greenspace sufficient to counteract the loss of trees to urbanization. If left up to private property owners, many areas in communities would be treeless or nearly so. Commercial districts and industrial parks are heavily dominated by pavement, steel and glass. Even with incentives or requirements to provide greenspace, these areas tend to remain extremely tree deficient. Tree deficits also commonly exist in low-income neighborhoods and areas dominated by rental housing, where landscaping is seldom a priority. Public tree planting and care can provide or supplement the forest canopy in these areas.

Community tree programs cost money, although generally far less than many other city services. Investment in community trees can reduce or delay investment in far more expensive infrastructure, such as power plants and storm water facilities. And as the Chicago climate study demonstrated, the benefits of healthy trees exceed their costs in the long run, which is, of course, the rationale behind investing in anything.

In a speech at the National Urban Forestry Conference in Atlanta in 1997, former Forest Service Chief Michael Dombeck offered the following figures. To reduce the demand for cooling costs in Milwaukee, Wisconsin, by 1 kilowatt hour would cost residents 10 cents for a new power plant, 2¹/₂ cents to improve efficiency of electrical appliances or 1 cent to plant a tree! Tree planting isn't just about beautification, nor is it about virtue; it is about making a sound investment in the environmental health of a community.

References and Resources

- Akbari, H. et al. (Eds.). 1992. *Cooling Our Communities: A Guidebook on Tree Planting and Light-colored Surfacing*. US Environmental Protection Agency, Office of Policy Analysis, Climate Change Division, Washington, DC.
- Fazio, J.R. (Ed.). n.d. *How Trees Can Save Energy*. Tree City USA Bulletin No. 21. The National Arbor Day Foundation, Nebraska City, NE.
- McPherson, E.G., D.J. Nowak and R.A. Rowntree (Eds.). 1994. *Chicago's Urban Forest Ecosystem: Results of the Chicago Urban Forest Climate Project*. Gen. Tech. Rep. NE-186. USDA Forest Service, Northeastern Forest Experiment Station, Radnor, PA. (Available on the Web at www.fs.fed.us/ne/syracuse/strucbib.html.)
- American Forests Web site: www.americanforests.org/.
- USDA Forest Service, Center for Urban Forest Research Web site: <http://wcufr.ucdavis.edu/>. 🌿

The DNR Gypsy Moth Suppression Program

by John Kyhl
Gypsy Moth Suppression Coordinator
DNR Southeast Region

Gypsy moth arrived in the state over ten years ago and it is now established in 32 counties in eastern Wisconsin. Where this pest is established, it goes through a cycle of low population for about ten years followed by a population explosion that causes heavy defoliation and typically lasts one to two years in any location. It is these population explosions, called outbreaks, which cause the tree damage that we are concerned about. While we can't prevent the eventual development of outbreaks, we can prevent defoliation in selected areas with insecticide treatments.

The Department of Natural Resources Gypsy Moth Suppression Program was developed in 2000 to help individuals and communities cope with gypsy moth outbreaks. The goal of the program is to reduce outbreak populations of the gypsy moth to below defoliation level using an aerially applied insecticide spray. The expense of the spray and the preparatory work to set it up is partially reimbursed by the USDA Forest Service. The cost share from the Forest Service can be up to 50 percent for treatments done on residential lands. Spray costs in 2002 were \$23.85 per acre, and administrative expenses generally have a similar per-acre cost. This is a voluntary program and anyone can refuse treatment. The only areas sprayed are those requested by communities.

In order to qualify for the gypsy moth suppression program, four criteria must be satisfied:

1. In urban areas, at least 25 percent of the proposed area must be covered with trees. Coverage is generally not an issue in parks, established neighborhoods and areas with trees more than 25 feet tall. In rural areas, at least 50 percent coverage is required.
2. At least 50 percent of the trees in the area must be preferred gypsy moth host species (including oak, aspen, basswood, willow, larch, birch, crabapple, hawthorn, mountain-ash, spruce, and pine).
3. The gypsy moth infestation must be high enough to warrant treatment. The threshold is 500 egg masses per acre in urban areas and 1000 egg masses per acre in rural areas.
4. The proposed spray block must have a regular shape and be at least 40 acres in size. Spray blocks can be residential neighborhoods, city parks, large rural properties or any combination thereof.

Tips and Tricks of the Trade

Instructions on how to determine tree cover, preferred species percentage, egg mass counts and block selection can be found in the suppression grant application instructions at www.dnr.state.wi.us/org/

caer/cfa/lr/gypsy/appinstructions2003.pdf or by contacting your regional gypsy moth suppression coordinator (see below). Your coordinator can also provide technical information about gypsy moths on everything from biology to management and about releases of natural enemies of gypsy moths such as parasites and diseases.

Here are some further tips to determine if an aerial spray is the most appropriate way to manage gypsy moths in your community.

What is the Extent of the Gypsy Moth Problem?

You probably know the locations of problem areas based on your personal observations, complaints phoned into the municipality or from the comments and observations of work crews. It is too late for this year, but for next year, be sure that the staff in your municipality keep track of gypsy moth complaint locations. From this list, a map can be generated showing which sites have the greatest problem. Complaints are often clustered in neighborhoods or subdivisions.

Keep Your Administrative Costs as Low as Possible.

Be efficient when determining which areas, if any, to spray. One way to do this is to visit several properties in one trip and do a quick, preliminary assessment—as opposed to making separate trips and in-depth surveys for each complaint. Walk through the area of concern and look for gypsy moth egg masses. If you don't see any, move on to your next site without a survey. If the area does have several egg masses, do the complete egg mass survey required by the grant.

Why Forty Acres?

The shape and size restriction ensures minimal reinvasion into the block from adjacent areas that are

Regional Gypsy Moth Suppression Coordinators

Columbia, Dane, Dodge, Green, Grant, Iowa, Jefferson, Lafayette, Richland, Rock and Sauk counties:

Mark Guthmiller

DNR South Central Region—Fitchburg
3911 Fish Hatchery Rd.
Fitchburg, WI 53711
Phone: 608-275-3223
Fax: 608-275-3236
E-mail: Mark.Guthmiller@dnr.state.wi.us



Brown, Calumet, Door, Fond du Lac, Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Waupaca, Waushara, Winnebago counties:

Bill McNee

DNR Northeast Region—Green Bay
1125 N. Military Ave., PO Box 10448
Green Bay, WI 54307-0448
Phone: 920-492-5930
Fax: 920-492-5913
E-mail: Bill.McNee@dnr.state.wi.us



Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington, Waukesha counties:

John Kyhl

DNR Southeast Region—Milwaukee
2300 N. Dr. Martin Luther King, Jr. Dr.
PO Box 12436, Milwaukee, WI 53212
Phone: 414-263-8744 Fax: 414-263-8661
E-mail: John.Kyhl@dnr.state.wi.us

continued on page 15



6

Community Tree Profile:***Amur maackia***
(*Maackia amurensis*)

by Laura G. Jull
Dept. of Horticulture
University of Wisconsin–Madison

Native To: Manchuria, Korea and Japan
Mature Height: 20' to 30'; grows larger in native habitat

Spread: 20' to 25'

Form: Small tree; vase-shaped form, becoming rounded with age, with upright, arching branches. Can be sold as a single-stem or multi-stemmed tree form.

Growth Rate: Slow

Foliage: Leaves are simple, alternate, pinnately compound, 8" to 12" long, with 7–11 leaflets. Each leaflet on the leaf is short stalked and opposite to alternating on the rachis. Leaves have a rounded to oblong shape with entire margins. Leaves are smooth, grayish-green to silver, and silky to downy when unfolding in spring, turning dark olive-green when completely unfolded.

Fall Color: None

Buds and Stems: Large terminal buds can occur in pairs; buds are egg-shaped, brown, smooth, and shiny. Stems are stout, grayish-brown to black, smooth with lots of lenticels. Stems have raised leaf scars and solid, white pith.

Flowers: Somewhat showy, off-white, on upright, stiff, densely packed racemes, 4" to 8" long, and clusters can be branched at the base; flowers in late June to mid-July. Flowers smell like fresh-mowed grass or alfalfa.

Fruit: Brown, flattened pod that ripens in fall, 2" to 3" long.

Bark: Showy when older; shiny, amber-brown to copper-bronze to olive-brown in color. Bark is smooth when young and peels when mature into tight, curly peeling pieces. These pieces are hard and do not fall off the tree. Bark can vary significantly from tree to tree with regard to color and amount of peeling.

Site Requirements: Prefers a loose, well-drained, loamy soil and full sun; tolerates high or low pH; can tolerate infertile soils as it can fix atmospheric nitrogen. Quite adaptable urban and drought-tolerant tree.

Hardiness Zone: 3a to 7

Insect & Disease Problems: No pest problems



Maackia flowers in mid-summer.



Form of a young Amur maackia

Suggested Applications: Amur maackia is a good specimen, street tree or lawn tree, as it casts filtered shade. Allows for turf growth underneath the tree. The new leaves, tree form, bark and summer flowers provide multi-season interest. It could potentially be used as a containerized tree or parking lot tree in urban conditions.

Limitations: Amur maackia may be hard to find in the landscape/nursery trade but larger, shade-tree liner producers are now producing this fine tree. Uncommon in nurseries due to its slow growth as a young plant. There is seedling variability among trees with regard to form and bark color. Can develop included bark with age, therefore requires pruning when young to develop a good structure. Pruning wounds are slow to close.

Comments: Amur maackia is a nice, small tree for landscaping. The silvery, unfolding leaves in spring, upright, summer flowers and shiny, peeling bark make this a nice specimen or street tree. The tree is very adaptable to various soil types and has a wide hardiness range.

Common Cultivars or Selections: None

References:

- Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses*, 5th ed. 1998, by Michael A. Dirr, Stipes Publishing, Champaign, IL
- North American Landscape Trees*, 1996, by Arthur Lee Jacobson, Ten Speed Press, Berkeley, CA
- Plants that Merit Attention: Vol. 1 Trees*, 1984, The Garden Club of America, Janet Meakin Poor, (ed.), Timber Press, Portland, OR
- The Right Tree Handbook*, 1991, by Harold Pellett, Nancy Rose, and Mervin Eisel, University of Minnesota Extension Service, St. Paul, MN
- Trees for Urban and Suburban Landscapes*, 1997, by Edward F. Gilman, Delmar Publishers, Albany, NY ❁

Weir's Cushion Rust

Newly Recognized Threat to Wisconsin Spruces

by Glen R. Stanosz, Ph.D., Associate Professor
Departments of Plant Pathology and Forest Ecology and Management
University of Wisconsin–Madison

Weir's cushion rust is a needle disease that disfigures and reduces growth of spruce trees (*Picea* species) of all ages. This disease has been known in both eastern and western regions of the United States for many years, but was recognized in Wisconsin for the first time in 2002. In our state, both blue Colorado spruces and white spruces are currently threatened by this disease.

Needles on current year's shoots affected by Weir's cushion rust may develop yellow spots or bands in summer and fall. These spots and bands may intensify to give needles a bright "green-and-gold" appearance during the following spring, when tiny blister-like pustules also may develop in the yellow areas. *Microscopic examination of these pustules is required for diagnosis of this disease*; specimens should be submitted to the Plant Pathogen Identification Clinic in the Department of Plant Pathology, University of Wisconsin–Madison. The affected one-year-old needles continue to yellow, turn brown and fall off as spring and summer progress. Trees badly damaged by Weir's cushion rust will have thin crowns due to repeated loss of the previous year's needles.

Weir's cushion rust results from colonization of spruce needles by the fungus *Chrysomyxa weirii*. This fungus overwinters in needles infected during the previous growing season. In late summer, or more typically the next spring, *Chrysomyxa weirii* produces spores in tiny, blister-like pustules that develop on these needles. These spores can be blown by wind or splashed by rain to newly emerging needles on the same tree or other trees. Spore germination is followed by infection of young needles.

Fungicides containing chlorothalonil may be applied to trees affected by Weir's cushion rust to prevent new needle infection. The first application should be made when 10 percent of the buds have broken and application should be repeated two more times after 7- to 10-day intervals. Fungicide application does not kill the fungus in needles that are already infected, so it is important to begin application promptly to ensure thorough coverage of foliage and to complete the spray program. Please be sure to read and follow all fungicide label instructions and ensure that the fungicide is used in the safest and most effective

manner. Needles infected by *Chrysomyxa weirii* the previous year will die, and it will not continue to live or produce spores on dead needles. Therefore, destruction of these dead needles is not necessary.

Landscape managers and homeowners should be careful not to accept nursery stock affected by Weir's cushion rust, which may be present in wholesale or retail nurseries. Spruces in nurseries and the landscape should be carefully inspected in late summer and fall for yellow spots and bands on current year's needles and in spring for these symptoms and pustules on the previous year's needles. Affected trees should not be

moved to areas where the disease is not already present. Preventative application of fungicides may prevent establishment of the fungus on new trees or in previously unaffected nurseries.

(Mention of particular materials does not constitute endorsement. Always read pesticide labels and apply in accordance with label directions.) 🌿

Copyright © 2002 by Glen R. Stanosz, All Rights Reserved

7



Yellow spots and bands (arrow) on last year's needles of spruce shoot affected by Weir's cushion rust (photo taken in June).

Photo by G. Stanosz, UW–Madison

What Damaged This Tree?



Photo by Cindy Casey, WDNR

Turn to page 15 to find out...

City of Oak Creek

continued from page 2

8

The mission of Oak Creek's urban forestry program is "To build community appreciation for the environment. To establish a quality urban forest enriched with natural heritage features. To model high-quality tree care. And, To demonstrate sustainable, long-term urban forestry."

Like most forestry programs, Oak Creek is understaffed and underbudgeted, so to accomplish its mission, Oak Creek has had to prioritize activities. Increased maintenance on trees in all size categories has been a priority, and in 2001 the city shifted to unit pruning for all trees larger than 6 inches DBH. Reforestation and tree preservation are also high priorities for this fast-developing city in order to optimize environmental benefits, including flood abatement, storm water management, heat island concerns as well as aesthetics. However, in 2000, street tree plantings were reduced to about 350 per year to catch up on maintenance demands.

The city makes yard pickup a priority, and mulch and wood of all sizes is offered free to residents. For a nominal fee, mulch will be delivered. Insect and disease control is minimal, though Oak Creek is a gypsy moth cooperator with the state for the third year—17 per trap average in 2001, up from 12.5 per trap in 2000. Awareness is frequently raised on this issue. Dutch elm disease is rampant in Oak Creek, but they are seeing improvements in the reduction of DED through community awareness and ordinance enforcement.

Oak Creek also conducts and hosts a number of arborist training workshops, training their staff and helping others by inviting neighboring communities and local public school maintenance personnel to attend.

Over and above routine maintenance, Oak Creek has undertaken a number of projects to advance its mission. Public awareness projects include highlighting tree issues in *The Acorn*, the quarterly community newsletter; celebrating Arbor Day with the community, schools, daycare centers and city staff; and developing interpretive displays. Last year, forestry staff hatched gypsy moths for National Night Out—what a hit! They had fun and were able to *show* not just tell! Private tree consultations and developing a great Web site are also on their plate. The environmental advisory committee also helps forestry staff with various projects.

In 2001 the community planted trees in the newly developed Oak Leaf Park through a grant agreement with Wisconsin Electric. Recently planted, large-maturing trees that had been inappropriately selected for use under power lines were moved to the park and WE provided reimbursement for shorter-growing replacements. Together, Oak Creek and WE worked to raise awareness on trees and utilities. Also in 2001, Oak Creek received a small grant for tree planting from Wal-Mart and used the funds to make landscape improvements at city hall.

The city is about to embark on an autumn project partly funded by their 2002 DNR grant. Residents will be offered replacement trees for lost screening and right-of-way removals from the previous year. It will be the first city-funded private tree planting.

Future management goals for the program include developing arborist safety procedures, a dynamic and functional inventory and an up-to-date tree ordinance, and long-term, making the parks into something special, retaining and planting many native trees. Oak Creek has worked to express its heritage, putting the oak back in Oak Creek. ♣



If there is a meeting, conference, workshop or other event you would like listed here, please contact Dick Rideout at 608-267-0843 with the information.

Coming Events

December 5, 2002 — Marketing Urban Wood Workshop, Quality Inn South, Madison, WI. Contact Sue Fabera, Lumberjack RC&D, at 715-453-1253 or sfabera@newnorth.net.

January 8–10, 2003 — Minnesota Green Expo, Minneapolis Convention Center, Minneapolis, MN. Contact Minnesota Turf and Grounds Foundation at 612-625-9234 or www.mtgf.org.

January 26–28, 2003 — Annual Urban Forestry Conference and WAA Annual Conference & Trade Show, Regency Suites & KI Convention Center,

Green Bay, WI. Contact Scott Nelson at 608-252-7186 or snelson@mge.com.

February 19, 2003 — Wisconsin Urban Forestry Council Quarterly Meeting, Madison, WI. Contact Felipe Avila at 608-267-0568 or Felipe.Avila@dnr.state.wi.us.

March 27, 2003 — Tree City/Tree Line USA Recognition Banquet, Monona Terrace Convention Center, Madison, WI. Contact Dick Rideout at 608-267-0843 or Richard.Rideout@dnr.state.wi.us. ♣

Involving Minorities in Tree Programs

This article was adapted from a fact sheet written by Robert M. Ricard, Extension Educator, Urban and Community Forestry, West Hartford Extension Center, 1800 Asylum Avenue, West Hartford, CT 06117, 860-570-9257, rricard@canr1.cag.uconn.edu.

Competition for volunteer services is fierce. If a tree group fails to include minorities in its activities in a meaningful way, other groups more alert to the potential of this vast and skilled human resource, will. Wisconsin's cities are places where people of diverse cultural backgrounds live; yet the state's demographic richness is often not reflected in community programs. As a black forester observed, "If America's minority population remains uninvolved, urban forests have little chance of thriving in the future."

Why Do Minorities Sometimes Fail to Volunteer?

Some minorities feel alienated or ignored by the "environmental movement" and perceive it to be mainstream and exclusive. Through careful surveys, United Way learned that minorities and women will not volunteer for any program if it gives them a sense that:

- they are mere "tokens"
- the program is all talk and no action
- they are isolated from other minorities and women
- the program is irrelevant to their concerns
- they cannot communicate effectively with others because of language differences

- attitudes or behaviors are discriminatory or perceived to be discriminatory
- they lack the qualifications to serve in a high-powered capacity
- what they have to say is not taken seriously
- they are being intimidated
- there are no real benefits to serving
- there are no role models
- those in charge overlook qualified minorities and women for key leadership roles

It is important to note also that sometimes people don't volunteer simply because they weren't asked!

How Does the Tree Group Attract Volunteers from Minority Groups?

In communities that are culturally rich, the successful community forestry programs respect different cultural groups. All people seek connections to heritage, nature and other people, and forestry programs that are culturally relevant facilitate these connections and promote respect for trees and nature. Nearly all cultures incorporate trees into their mythologies, and the planting of trees can serve to bond people in a neighborhood and affirm an array of ethnic rituals. However, only programs that are innovative and respect the uniqueness of the people they are serving will work. People have to feel empowered by the program.

continued on page 11

Deadlines and Datelines

NUCFAC Challenge Cost-Share Grants

The National Urban and Community Forestry Advisory Council offers grants to support urban and community forestry activities that are national or widespread in their impact or application. Any non-federal organization is eligible. About \$1 million is available for 2003. *The deadline for receipt of pre-applications is December 10, 2002.* For information, contact Suzanne M. del Villar at 707-642-9201 or visit their Web site at www.treelink.org/nucfac/.

Tree City USA—Early Deadline!

The National Arbor Day Foundation sponsors the Tree City USA award to recognize communities for their efforts in managing their urban forest. Wisconsin ranks third in the nation for certified Tree Cities. Applications for Tree City USA and TCUSA Growth Award are due to your regional urban forestry coordinator *no later than December*

31, 2002. It is particularly important to meet the deadline this year so the DNR and NADF can approve the applications in time to get awards to the TCUSA recognition banquet in Madison on March 27, 2003. For information, contact your regional urban forestry coordinator (see page 16) or check our Web site at www.dnr.state.wi.us/org/land/forestry/uf/awareness/index.htm.

Arbor Day Poster Contest

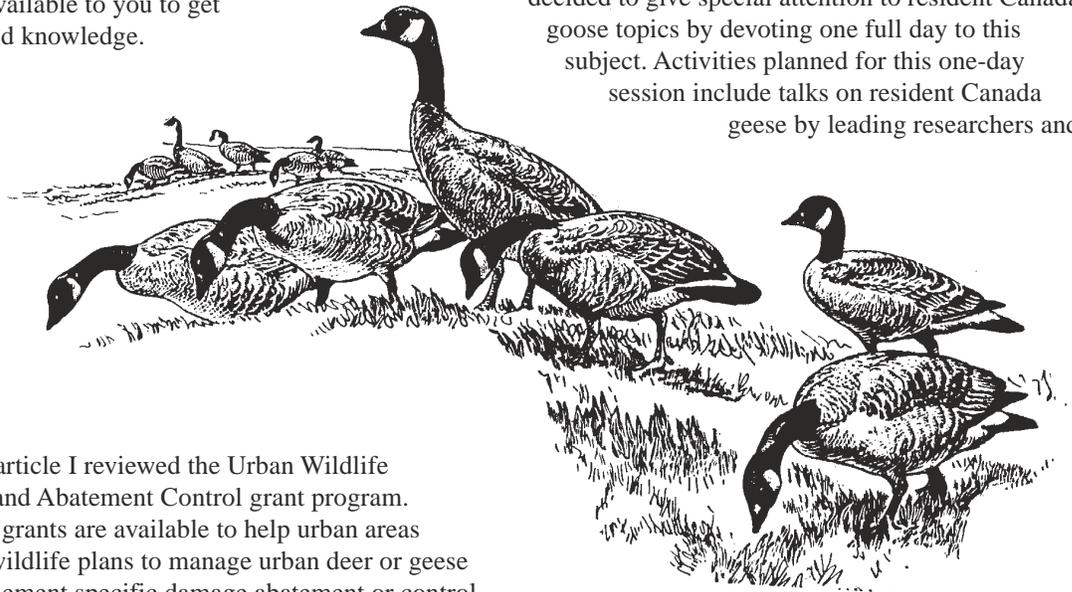
The DNR and the National Arbor Day Foundation are sponsoring the 2003 Arbor Day Poster Contest for fifth graders. The theme this year is "Trees are Terrific...from acorn to oak!" Curriculum and contest materials were mailed out to all public and private elementary schools in the state in October. *Submission deadline for posters is February 18, 2003.* For more information visit our Web site at www.dnr.state.wi.us/org/land/forestry/uf/awareness/arborposter.htm. ❁

Money or Knowledge?

by Ricky Lien
DNR Urban Wildlife Specialist

I'm involved with a program in my community that matches up teenagers with mentors for a one-year period. For those of you who know me and are asking yourself, "Ricky's a mentor?"—I'm as doubtful as you are. But anyway, we recently had a get-together to allow mentors and mentees a chance to get to know each other. One of the icebreaker activities was a series of questions asked by the coordinator that each pair of people would discuss. One of the questions went something along the lines of, "If you had a choice between lots of money or incredible knowledge, which would you choose?" I'm pleased to tell you that most of the teenagers chose knowledge, though many of them admitted they picked knowledge because they thought they could use it to get money.

Here comes the segue to today's topic. Today's article will cover two upcoming opportunities available to you to get money and knowledge.



Money

In a past article I reviewed the Urban Wildlife Damage and Abatement Control grant program. UWDAC grants are available to help urban areas develop wildlife plans to manage urban deer or geese or to implement specific damage abatement or control practices for those two species. Past grant recipients have used the money to conduct helicopter deer surveys, implement deer sharp-shooting or trapping programs, relocate Canada geese or have them processed for food pantries, and to implement a number of non-lethal nuisance abatement techniques. Only \$25,000 is available annually through the UWDAC grant program and the maximum grant award to any grantee is \$5,000. Obviously, \$25,000 for a statewide grant program doesn't go far and each year has seen an increase in the number of communities vying for the money. Still, if you don't apply you don't have any chance at all.

For more information on the UWDAC grant program, please visit the Wisconsin DNR Web site, www.dnr.state.wi.us/org/caer/cfa/LR/urbanwildlife/grants.html.

Knowledge

Deer management in Wisconsin has always been a key topic in our wildlife management activities. But the emergence of chronic wasting disease in our state's deer herd has pushed all other activities to the back burner. In spite of justified priority given to dealing with CWD, there are other issues that we're moving forward with.

One of the key wildlife issues nationwide is the rapid growth of resident Canada goose populations in the lower 48 states. The Wisconsin DNR, the US Fish and Wildlife Service, and US Department of Agriculture – Wildlife Services are joining forces to host the 2003 International Canada Goose Symposium in Madison, Wisconsin, on March 19–21, 2003. While the symposium will be devoted to all issues related to Canada geese, the symposium organizers have decided to give special attention to resident Canada goose topics by devoting one full day to this subject. Activities planned for this one-day session include talks on resident Canada geese by leading researchers and a

panel discussion on nuisance Canada geese moderated by Scott Craven, head of the University of Wisconsin Department of Wildlife Ecology.

While the symposium is designed for Canada goose researchers, biologists and natural resource administrators, it has value for anyone who has to deal with, or has an interest in, Canada geese—birders, park managers, etc. I invite you to visit the symposium Web site at www.dnr.state.wi.us/conferences/.

Learning about Canada geese in a forum such as this is a rare opportunity. It's even rarer that it's going to occur in our own backyard. ❁

Involving Minorities in Tree Programs

continued from page 9

For example, the University of Connecticut Cooperative Extension System has created a program which links adult role models, such as police and fire fighters, with at-risk youth in Hartford, Meriden and Stamford, who work together with established tree groups to plant and care for trees. Other examples from around the nation include:

- ReLeaf Mississippi, which designed a contest for fifth through ninth graders, called Rap for ReLeaf. The prize was money for trees to be planted on school grounds.
- El Centro de la Raza, which has begun to plant trees in concert with efforts to provide an array of community services—job training, childcare, and arts and crafts programs—to a predominantly Mexican-American neighborhood in Seattle.
- An Eco-Rap contest in San Francisco, where 86 percent of school children are people of color. The objective was to involve young people in local environmental issues. A theater group in San Francisco sponsored bus tours of inner city neighborhoods led by environmental experts to give participants ideas for lyrics. The program attracted a culturally diverse group of young persons between the ages of 15 and 29. The grand prize was a recording session.

How Does a Tree Group Include Minorities in a Meaningful Way?

To get started you need to:

- establish a policy of minority inclusiveness, then communicate your tree group's commitment to it and inform the media
- as soon as possible, place qualified minorities in key decision-making positions
- enhance minority leadership skills through workshops and training programs
- change any structure or program that hinders inclusiveness
- help your tree group become sensitive to cultural differences through speakers, workshops or training sessions
- set standards for writing or speaking; for example, United Way recommends alphabetizing ethnic group titles so no particular group feels slighted
- be sure the members of your tree group understand the benefits that will accrue to business and the community as a result of inclusive policies
- solicit the help and services of minority businesses and professionals
- recruit minorities by relying on minority institutions: churches, fraternal organizations, business and professional associations, and so on; use their publications to advertise your cause
- allow your group a reasonable amount of time to

achieve inclusiveness (United Way recommends one year)

How, Specifically, Can a Tree Group Enlist the Support of a Minority Group?

Asians, Blacks, Hispanics, Hmong and native Americans are among many minority groups in Wisconsin and, where applicable, the special needs of each need to be addressed by your tree group. To illustrate, consider the advice of the USDA Forest Service on how to encourage Hispanics (chosen arbitrarily) to participate in your community forestry program:

- Hispanics value personal relationships. One-to-one contacts will produce results where a flyer or a letter will not.
- Hispanics desire the respect of their neighbors. Hispanics who participate in urban forestry programs often do so to gain recognition. (Generally, people want to feel that they are essential in any effort designed to breathe new life into their communities.)
- The Spanish language is important to Hispanics. Groups that value Hispanic participation in urban forestry programs are wise to solicit support in Spanish.
- Hispanics are concerned about the education of their children. Urban forestry programs that are effective will involve them.
- Hispanics are concerned about health issues, education, social services and economic development. The best approach to the creation of an urban forestry program is that which incorporates these (and other) community concerns.

In the poorest neighborhoods where Hispanics and other minorities too often find themselves living, one would think that the planting of trees and gardens would be a low priority when day-to-day survival is tested by crime, poor housing, inferior education, health issues and drugs. However, according to Luz Parris-Sweetland, a National Urban Forestry Coordinator for the Forest Service, this is not so. Consider a success story from New York City, where vacant lots are planted to flowers and trees. One Puerto Rican gardener reports that his garden "is actually a piece of Puerto Rico... in New York. It has changed my life completely. Now I don't feel lonely like before." Community forestry programs that integrate minorities and women are the products of hard thinking and hard work on the part of dedicated organizers, and they produce lasting results. ♻️

11



Milwaukee Office of Youth Initiatives training for urban forestry data entry.

Photo by Greening Milwaukee

Organization Profile:

Wisconsin Forest Resources Education Alliance

by Don Kissinger
DNR West Central Region

In 1997, meetings with 13 different groups including the Wisconsin Department of Public Instruction, Lake States Lumber Association, Project Learning Tree and Wisconsin Center for Environmental Education concluded that program coordination for forestry education was needed in the state. As a result, the Wisconsin Forest Resources Education Alliance, or WFREA, began in August of 1998 with one full-time forestry education coordinator.

There are 15 major forestry themes or issues that WFREA promotes to Wisconsin K–12 teachers so that they may educate and influence the students, who will be our future decision-makers, forest industry employees and consumers. A sampling of these themes include:

- nature is dynamic—everything is connected and changing
- sustainable forestry integrates social, economic and ecological needs
- foresters manage large landscapes over long time periods; forests are not an annual crop such as corn or beans
- incentives are better for the forest industry than regulations
- there can be complete and proper utilization of the forest resource to sustain it into perpetuity
- teachers have a logical and special responsibility to forward the forestry message



Photo by WFREA

WFREA promotes forests as outdoor classrooms.



WFREA
Wisconsin Forest Resources
Education Alliance

With these themes in mind, WFREA has successfully completed four major projects to date:

1. Designed for students in grades four through six, the *Wisconsin Forests Forever* CD-ROM is accompanied by posters, brochures and a teacher's guide correlated to Wisconsin's Model Academic Standards (environmental education, science, social studies, language arts and math). The interactive CD allows students to visit two virtual forests and look for Wisconsin wildlife; play "I Wood if I Could," an interactive game show about forest products; travel all over a Wisconsin state map, clicking on recreation areas; and explore different types of Wisconsin forests. Packets are sold for 30 dollars, which includes shipping.
2. A school forest manual entitled "*How to Grow a School Forest*" is the first of its kind in Wisconsin. This 140-page manual was produced to aid teachers in adapting their school forests to be working outdoor classrooms. The manual addresses the process of starting a school forest, recording growth, gathering information, developing a school forest master plan, whom to involve in this process and then implementing it. Teachers can contact WFREA for a copy or download the manual as a .pdf file from the WFREA Web site at www.wfrea.org.
3. In order to enable teachers to get a glimpse of the full scope of forestry and the forest products industry WFREA, in partnership with the Temperate Forest Foundation in Beaverton, Oregon, hosted the Lake States Region Teachers' Tour in July of 2000 and 2001. This intensive three-day session incorporated woods and mill tours for teachers to understand how trees are managed on the stump for recreation as well as future harvesting, the actual harvesting and milling processes, and uses of the wood. Cooperators who provided stops on the tour along with paying fees for several participating teachers and meals for all participants were Menominee Tribal Enterprise forests, Heritage Veneered Products, TIMBCO Hydraulics, International Paper – Thilmany Kraft Mill, High Cliff State Park, Abrams Lumber, and Wisconsin Log and Cedar Homes.

continued on page 14

The Idea Exchange...

compiled by John Van Ells
DNR Southeast Region

Bath's Tree Resource as Art Medium!

What to do with wood residue after the storm was uniquely addressed when Bath, Maine's trees became sculpture for the new Jay Middle School. During the implementation of the '98 Ice Storm Community Recovery grant, Bath's community trees were assessed regarding their overall health and potential hazard.



Photo by Denis Hebert

A salamander emerged from an ice-storm-damaged red maple at the hands of artist Andreas von Huene.

Removed trees were assigned different fates, depending on how deteriorated they were. Many were taken to a drum chipper or were cut up for firewood. However, some choice logs of red oak, cottonwood and ash were selected by local artist Andreas von Huene for his animal sculptures, which are actually benches, to be installed in the new Town of Jay Middle School. *Info:* www.cityofbath.org/forest/andreas.htm.

Forest Service Launches On-line Registry for 9/11 Living Memorials

The USDA Forest Service launched an on-line registry of living memorials that honor those lost in the September 11 attack on America.

The registry is part of the *Living Memorials Project* sponsored by the Forest Service, which honors the memory of the thousands of innocent citizens and the heroism of the fire fighting units, police force and emergency personnel who lost their lives in the horrific events of September 11.

A living memorial involves the planting of trees and creation of green space as a way to remember the heroes and the deceased of September 11. "Trees, water and nature can be powerful forces for reflection and healing," said Anthony Gardner, Chairman,

World Trade Center United Family Group, one of the supporting organizations of the project.

The online registry, at www.livingmemorialsproject.net, intends to capture living memorial projects nationwide. Individuals and groups will be able to submit site information, post images and share experiences, thoughts and triumphs. *Info:* Phillip Rodbell, 610-557-4133, prodbell@fs.fed.us.

Researchers Say Trees Could Affect Land Use, Reduce Skin Cancer

A Purdue University method to estimate the amount of protection trees provide against ultraviolet-B radiation may influence how communities are built and the incidence of skin cancer.

"We now have a model to predict how much UV-B radiation people receive under different amounts of tree cover," said meteorologist Richard Grant, Purdue agronomy professor. "If you're in what most people consider shade, you're still getting 40 to 60 percent of the UV-B exposure that would hit you in direct sunlight."

"Our model takes into consideration the fraction of sky you can see through the tree canopy," Grant said. They assessed a scenario to determine the effect of tree cover on children's daily UV-B exposure. If a person is standing in the sunlight under a tree that provides 50 percent coverage, it will take about 50 minutes for them to burn instead of 20 minutes. However, that same person standing in the full shade under the same tree could be there for 100 minutes before they received too much ultraviolet radiation.

But with 90 percent tree canopy coverage, the ultraviolet protection factors are 10 times greater, giving the equivalent of a Sun Protection Factor 10 sunblock lotion. "Clearly, significant exposure of pedestrians is likely unless the tree cover has a nearly closed canopy."

Residential and urban planners should consider the ultraviolet protection factors, Grant said. Many multifamily communities and office complexes, especially in urban areas, are lacking trees. "There are indications that the relative factors for protection of children from ultraviolet radiation differ in single-family verses multifamily developments," he said.

Info: <http://news.uns.purdue.edu/UNS/html4ever/020422.Grant.shade.html> 🌿

13



Does your community or organization have an idea, project or information that may be beneficial to others? Please let your regional urban forestry coordinator know. We will print as many of these as we can. If you see ideas you like here, give the contact person a call. They may be able to help you in your urban forestry efforts.

Keep Track of Your Tools

*by Jeff Edgar, Chair
Wisconsin Urban Forestry Council*



New Urban Forestry Council Chair, Jeff Edgar. Jeff is co-owner of Silver Creek Nurseries in Manitowoc, Wisconsin. He has an Associate Degree in Horticulture Production from Gateway Technical College, is past president of the Wisconsin Nursery Association, past president of the Wisconsin Landscape Federation and current American Nursery and Landscape Association governor for Wisconsin. Jeff has received the Distinguished Service Award from the Wisconsin Landscape Federation and is an active member of various industry-related state and national committees.

Photo by Silver Creek Nurseries

I'm sure most of you remember a TV show called *Hill Street Blues*, which was about the daily lives and incidents of various police officers. Usually the show began with the police sergeant briefing his officers on the daily events. His last words of advice were, "Hey, hey, and remember, whatever you do, be careful out there." That was, and is, some pretty sound advice for anything you do.

I just returned from a tour of nurseries in the Portland, Oregon area. Each day a copy of *The Oregonian*, the local newspaper, was outside our motel room doors. When we weren't up to anything, it was nice to relax and read the local paper. One article caught my eye that would be interesting to anyone in the landscape and tree care business.

It seems while a young girl was in her home, she heard a loud crash in the next room. While investigating the source of the sound, she found the head of a sledgehammer lying on top of a photo album, which was on top of a table. Looking up, she also noticed a hole in the ceiling and roof beyond that. The police were notified. Knowing that an air show had just ended at a local airport, they thought the sledgehammer head might have fallen from one of the planes.

The FAA was immediately called in to find out which plane (if any) could have dropped the sledgehammer. The investigator measured the angle of the holes caused by the hammerhead and figured it didn't come from a plane—it came from level ground at a point 300 feet from the house. Within that area is a rather large garden center and landscape company. While questioning the people at the garden center, it was found that a crew was using a tub grinder to chip up some brush at the same time the hammerhead went through the house. The sledgehammer must have been mixed in with the brush. When the hammer hit the grinder, it must have ground off the handle and launched the head towards, then through, the house. The mystery was solved.

Make sure you account for all your tools and whatever you do, treat every chipper as if it is loaded, know your target and what's beyond and point that chipper in a safe direction. And, hey, hey, remember whatever you do, be careful out there! Until next time...



Wisconsin Forest Resources Education Alliance

continued from page 12

4. WFREA completed the production of three vignettes for the Public Broadcasting System. These five-minute vignettes feature Wisconsin's school forests, sustainable forestry and woodlot management. Each month the statewide PBS network broadcasts these vignettes via satellite to 510,000 viewers in households throughout Wisconsin. Since the fall of 2000, approximately 6.6 million people have received the message of sustainable forestry. Partners in this venture again have come from school districts throughout the state, the DNR and several conservation groups. Currently WFREA is a working member of the LEAF Advisory Committee. LEAF is the state's K-12 forestry education program at the University of Wisconsin-Stevens Point. The committee is developing a K-12 forestry education curriculum. Using this curriculum, a graduate-level course is being designed to teach educators how to successfully implement the curriculum, which includes WFREA's CD-ROM and school forest manual. Another course for graduate credit will involve the Lake States Tour.

WFREA is working with the DNR Forestry Leadership Team on another exciting proposal to create a statewide School Forest Program Coordinator position, to help implement the K-12 forestry education curriculum on school forests.

WFREA's coordinator, Eden Koljord, sees a definite connection between urban forestry and her organization. Over a half-dozen of the activities in the CD-ROM packet are community and urban forestry related where teachers could use urban foresters to help implement the activities. The Lake States Region Teachers' Tour, when incorporated into the LEAF program, needs more stops highlighting different aspects of forestry, which should include the urban realm as well as the nursery industry. It is hoped that additional vignettes will be produced for PBS and one of these could feature urban forestry.

In August 2002, WFREA celebrated its fourth anniversary. In that short amount of time, WFREA has raised funding from industry sponsors and received numerous grants to perform the good works they have done. WFREA's long-term goals are to provide leadership in forestry education, build a stable funding and administrative structure for itself as well as serve as a source of information and materials about forest resources that teach the concepts of sustainable forestry. From past efforts it appears they are well on their way to success.

For more information, contact Forestry Education Coordinator Eden Koljord at 715-282-5466 or visit the WFREA Web site at www.wfrea.org.

Urban Forestry Resources:

compiled by Cindy Casey
DNR West Central Region

Listed below are a few of the many excellent resources on the subject of protecting trees during land development and construction:

Tree Conservation Ordinances: Land-Use Regulations Go Green, by C.J. Duerksen. 1993.

Local governments considering adopting a tree protection ordinance will find this publication exceedingly helpful. It does not offer a boilerplate ordinance; rather, it covers the scope of issues and details the process to develop an effective tree protection ordinance. Legal aspects of tree conservation are covered, with numerous case studies cited. The publication features thorough explanations and many useful illustrations. Available as Planning Advisory Service (PAS) Report No.446 from the American Planning Association. Contact Planners Book Service, 122 S. Michigan Ave., Suite. 1600, Chicago, IL 60603-6107; 312-786-6344; fax: 312-431-9985; APA publications can also be ordered on-line at www.planning.org.

Trees and Construction, by USDA Forest Service, Southern Region et al.

“Trees and Construction” is one of sixteen units in the *Southern Urban Forestry Manual*. This 62-page

self-study unit guides the reader through the complex process of tree protection during site development and construction. Good color photos and illustrations complement the text. The unit includes a section on reading site plans. It is available on-line and as a downloadable file at www.urbanforestrysouth.org/pubs/ufmanual/construction/index.htm.

Trees and Development: A Technical Guide to Preservation of Trees during Land Development, by N. Matheny and J.R. Clark. 1998.

This well-written, authoritative guide belongs on the reference shelf of construction engineers, design professionals, foresters and others involved with tree protection on development projects. Insights about the development process, construction practices and construction impacts on trees offer a well-rounded approach to a complex subject. Technical material is supported throughout with useful illustrations, diagrams, charts and tables, including a list of individual tree species’ tolerance to development impacts. Case studies and sample construction specifications are also included. Available from the International Society of Arboriculture at member (\$35) and non-member (\$45) prices. A companion workbook is also available for \$5 (members) or \$7 (non-members). Contact ISA at PO Box 3129, Champaign, IL 61826-3129; 888-ISA-TREE; fax: 217-355-9516; ISA publications can also be ordered on-line at www.isa-arbor.com. ❁

15

The DNR Gypsy Moth Suppression Program *continued from page 5*

not sprayed. If a block is smaller than 40 acres, or has a long, thin or other irregular shape, gypsy moth caterpillars from adjacent areas can easily reinvade when the insecticide degrades within 10 to 14 days. Reinvansion can lead to defoliation in areas that were sprayed.

The Application Process

If and when you decide to apply for the grant, the application forms and process are simple, fast and largely self-explanatory. The application forms were mailed to each municipality in areas where the suppression program operates. If you did not get this application packet, request one from your regional suppression coordinator (see box on page 5) or download the materials from the GMSP Web site, www.dnr.state.wi.us/org/land/forestry/fh/GM/index.htm.

Two copies of two different maps showing the proposed treatment locations are required. All applicants must submit a 7.5-minute quadrangle map (available at map stores). If the proposed spray block is in an urban area, a tax assessor’s map is required

for the second map; in rural areas, a plat map is needed. Directions for marking the proposed spray blocks on the maps are given on the application form. If your community can generate the maps using GIS, this is ideal. These maps will still need to be printed out for grant review, but electronic copies can be submitted on a CD with the application.

When you have completed the grant application, send it to your county coordinator. If you are not sure who this is, or if you have any questions on the application process or any other aspect of the GMSP, please contact your DNR suppression coordinator. ❁

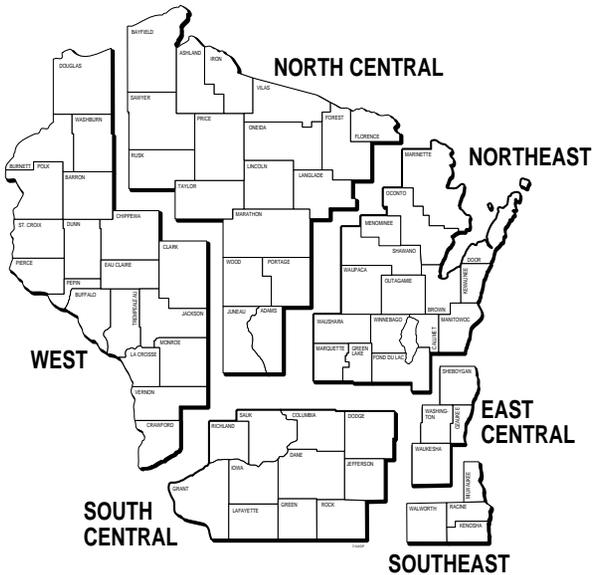
From page 7.

What Damaged This Tree?

Answer: A shovel and a careless tree planter can take credit for this damage. Three years before this picture was taken, the tree was scuffed with a shovel when the planter tried to remove excess soil above the root collar. (If the root collar is buried in the soil ball, remove excess soil *carefully!*) ❁

Do you have pictures of tree damage others ought to know about? Send them to Kim Sebastian (address on page 16) and we’ll print them here!

Wisconsin DNR Urban and Community Forestry Contacts



World Wide Web Site: www.dnr.state.wi.us/org/land/forestry/uf/

West

Cindy Casey
Regional Urban Forestry Coord.
1300 West Clairmont Ave.
Box 4001
Eau Claire, WI 54702
Phone: (715) 839-1606
Fax: (715) 839-6076
e-mail: Cynthia.Casey-Widstrand@dnr.state.wi.us

North Central

Don Kissinger
Regional Urban Forestry Coord.
5301 Rib Mountain Drive
Wausau, WI 54401
Phone: (715) 359-5793
Fax: (715) 355-5253
e-mail: Don.Kissinger@dnr.state.wi.us

South Central

Nathan Eisner
Regional Urban Forestry Assist.
3911 Fish Hatchery Road
Fitchburg, WI 53711
Phone: (608) 275-3227
Fax: (608) 275-3236
e-mail: Nathan.Eisner@dnr.state.wi.us

State Coordinator

Dick Rideout
State Urban Forestry Coord.
101 S Webster St
PO Box 7921
Madison WI 53707
Phone: (608) 267-0843
Fax: (608) 266-8576
e-mail: Richard.Rideout@dnr.state.wi.us



Northeast

Tracy Salisbury
Regional Urban Forestry Coord.
1125 N. Military Ave.
P.O. Box 10448
Green Bay, WI 54307
Phone: (920) 492-5950
Fax: (920) 492-5913
e-mail: Tracy.Salisbury@dnr.state.wi.us

East Central

John Van Ells
Regional Urban Forestry Coord.
Pike Lake State Park
3544 Kettle Moraine Road
Hartford, WI 53027
Phone: (262) 670-3405
Fax: (262) 670-3411
e-mail: John.VanElls@dnr.state.wi.us

Southeast

Kim Sebastian
Regional Urban Forestry Coord.
2300 N. Martin Luther King Jr. Dr.
Milwaukee, WI 53212
Phone: (414) 263-8602
Fax: (414) 263-8661
e-mail: Kim.Sebastian@dnr.state.wi.us



Presorted Standard
U.S. Postage
Paid
Madison, WI
Permit 906