



Partners News

April 2014

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WELCOME NEW PIF MEMBER(S)

Charles Pogorelnik

A FEW WORDS FROM JOE:

Back in very early December, a logger friend from Ironwood caught me in Boulder Junction in the early morning, as he had to go get a machine started for his crew who was working close by on the NHAL. His first words were, "It's 19 below zero this morning, if it stays like this all winter there are going to be a lot of 'broke' people come spring." It seems like spring is finally here, after a foot of snow last Friday (4-4-14), and yes George, a lot of folks were financially and physically stressed by this winter.

On the bright side, we had a better snow pack than we have had for sometime, and perhaps that extreme cold will help nature control some of these forest pests.

Please attend our upcoming tree measuring workshop and learn how to 'cruise' your own timber to estimate volumes. I had lots of good questions on basal etc. after our last newsletter, and they are best answered by practical experience than by more writing.

I thank Rod for pointing out truth about the deer study proposal, after reading the features in the Vilas News, filled with inaccuracies, someone had to tell the truth.

Let's be aware of the threat of Oak Wilt, which is spreading north. Our members and friends from central Wisconsin have suffered from this dreaded disease for decades.

Keep your comments or requests coming, we appreciate hearing from you.

I said about all I could tolerate in writing about Wildcat Falls yet again. I want PIF members to know that regular PIF dues were not used for legal expenses. That said, if you wish to contribute please contact me. The lesson to be learned from this is, it is dangerous to assume that these smaller and relatively isolated tracts of public land are protected...especially if they have resource value.

A big thank you for this issue to Rod Sharka, John DuPlissis and John Schwarzmann, and especially to Margo Popovich, as well as Jim Joyce for a great website.

PIF SPRING FIELD DAY AND WORKSHOP

MAY 17, 2014

Understanding the CANOPY of your woodlands, tree measuring, stand density and basal area or all of the above.

Inspired by the recent story on Basal Area from John DuPlissis, good questions have come in like:

1. How to measure the diameter of a tree
2. How to measure the height of a tree
3. How to determine when a site is ready to harvest
4. How do you determine the quantity/amount of wood that will be harvested
5. Are links, rods and chain measurements still used and when.
6. How do you determine when a tree is mature or has reached its life expectancy
7. What trees grow best in what soils
8. When should I plant trees and when should I let nature do the planting
9. How do you determine what soil is present and what trees do best in the soil
10. How is board feet calculated before harvesting

PIF is committed to helping members learn answers to these and other questions, so lets begin the process on Saturday May 17, 2014. Let's gather at the Hovels' place at 6063 Baker Lake Road, Conover, Wisconsin at 9-9:30 AM. This is between Baker Lake and Stormy Lake, 5 miles west of Conover.

First we will each make a very adequate 'biltmore' style stick by writing the required figures on a beautiful piece of northwoods sugar maple from our friends at Kretz Lumber. Then some basic forestry lessons from attending foresters prior to our time in the woods where we will take a close look at both pine stands and hardwood stands of various density.

Drinks and snacks will be provided, but please do bring yourself a lunch as this may get interesting enough that we can talk and share knowledge as we eat lunch. Also, bring your Timber Management Field Book, as it is packed with volumes of helpful information concerning this workshop.

This event is free of charge to PIF members, with a nominal \$10 charge for non members. Please let us know by email logcabin@nnex.net or phone 715-479- 8528 if you can make it. Hope to see you then.



John Schwarzmann (l) and Mark Hovel (r) checking growth rate

WISCONSIN DNR TO UNDERTAKE LONG-TERM DEER STUDY IN NHAL STATE FOREST

By Rod Sharka



Photo contributed by Rod Sharka

To all PIF landowners... if you reside in or own property in Vilas County and read the local papers, or listen to WXPR radio, you probably have seen or heard recent stories about a new long-term DNR deer study being planned on a parcel of Northern Highland-American Legion State Forest land in western Land O' Lakes Township. Some stories were accurate, some... not so much.

The proposed study is to be carried out on what is called the Ontonagon River Block, the very tract of land that the DNR purchased from our very own Joe Hovel in 2009, and added to the NH-AL. The reasons for choosing this site includes the fact that Joe's prior excellent management of the tract for nearly 20 years left a very high quality, diverse woodland that contains all of the different habitat types required by the study. Another reason for selecting this site for the study was in part because the state gained ownership of it fairly recently and deer hunters and camps are more established in other possible sites. Whether you manage your land for timber production or for wildlife

habitat, whether you are an avid deer hunter or not, this study should be of interest to you and it is important to base any opinions you may have about its worthiness on accurate facts.

News of this study was initially leaked by Ken Anderson, a freelance reporter for the Vilas County News-Review. Mr. Anderson's March 5th article, entitled "DNR study could close 900 acres to hunting," was unfortunately replete with errors and contrived falsehoods apparently designed to incite controversy rather than to report facts. The falsehoods in this article were further supported and expanded upon by an inflammatory and opinionated article published by News-Review outdoors editor Kurt Krueger in his "In the Outdoors" column in the same paper the following week. In my opinion, both of these "reporters" are abusing their positions on the News-Review to "create news" instead of fairly reporting the facts, only to foist their own personal ideologies and vendettas against the DNR on the community. Strong accusations, I know. But allow me to explain how I have come to this conclusion.

Although I had heard rumors of such a study for several months prior to Anderson's article, I didn't think much about it until the March 5th story broke. Being a retired biologist, when I first read the article, the details stated didn't make sense to me. The article stated that 900 acres of public land would be divided up into 12 - 80 to 120 acre fenced in enclosures that would be stocked with varying amounts of deer representing low, moderate, and high densities. The story then went on to state that the low density population would contain 16 deer in 120 acre enclosures, moderate density populations would be represented by 28 deer in a 90 acre enclosure, and the high density plots would have 40 deer in an 80 acre enclosure. Wow! Anyone with any knowledge about forest ecology would realize that these densities sound more like commercial deer farm numbers where deer must be artificially fed because there is no way the enclosure habitats would be capable of supporting that many deer.

Furthermore, an aerial map published along with Anderson's article showed the planned layout of the 12 enclosures and seemed to indicate that the study area would extend beyond the boundaries of Joe's original land sale and would encroach onto another 60 acre parcel recently purchased by the DNR, as well as onto adjacent Board of Commissioner's state trust lands to the north. Since I have spent many, many volunteer hours helping the BCPL folks to control invasive honeysuckle on these trust lands, and recently discovered additional honeysuckle on the newly purchased 60 acre DNR parcel, I wondered if the DNR folks were aware of this infestation and how it would be handled in relation to the study. Recent research suggests that deer play an important role in the spread of invasive plants in woodlands, and I was concerned that all of my efforts to control honeysuckle on the surrounding land the last several years (including my own nearby property) might be compromised if this new population was allowed to persist and spread.

As a result of this information, I decided to contact Dustin Bronson, the DNR forest research ecologist named in Anderson's article who is the lead scientist on this study. After a lengthy phone call, followed by a visit to Dustin's Rhinelander office, I am pleased to report that Dr. Bronson could not have been more professional, or more willing to explain the details about this study. I would like to share with you what I learned.

First, the deer densities per enclosure reported by Anderson were completely distorted and incorrect. True, there are 12 enclosures planned to represent high, medium, and low densities in various habitat types based on historic deer density records. However, the enclosures will contain deer numbers designed to represent densities of 40, 28, and 16 deer *per square mile* during the summer and 32, 21, and 11 deer *per square mile* during the winter (to represent post-fall harvest numbers). In reality, the 80 acre, high density enclosures would actually contain 5 deer in the summer and 4 deer in the winter. The same relationship holds true for the medium and low density plots.

Second, the aerial map showing enclosure locations printed in Anderson's article was only meant

to be a conceptual model and was never meant to be an accurate layout. This was never mentioned in the paper. In reality, the entire study will be confined to Joe's former land. This land has already been carefully surveyed, and although there are a small number of scattered, invasive plants present that will not be removed, Dr. Bronson assured me that they will be carefully monitored. One of the many specific goals will include determining what role deer density has in facilitating the spread of these as well as other invasive species such as invasive earthworms.

The overall project objectives statement provided by Dr. Bronson reads as follows:

"The overall goal of this experiment will be to develop deer browse and deer fitness metrics recommended by the 2012 Deer Trustee report. These metrics will provide Wisconsin with the necessary data to manage for a sustainable white-tailed deer herd, while also maintaining a viable forest industry and appropriate ecosystem biodiversity. The 2012 Deer trustee report identified the need to develop multiple metrics that relate deer density effects on forest regeneration deer health, herbaceous vegetation wildlife diversity and overall ecosystem sustainability. Understanding the relationship between deer density diet quality and body mass/body condition will further help Wisconsin's deer management program. Finally, given the prevalent use of trail cameras amongst outdoorsmen and wildlife scientists, we intend to develop a deer abundance metric using trail cameras that could be utilized and expanded upon through a future citizen science program."

A great deal of preparation needs to be done on the site before any fencing is installed. Dr. Bronson indicated that very precision tree harvesting needs to be done to create a variety of different forest growth stages as well as some large gaps.

"We have some great winter thermal cover that will be preserved and then we have the ridges of northern hardwoods and also some areas of aspen that we're going to expand upon as well. We recognize the critique that we're going to be holding deer in enclosures...between 80 and 120 acres. The goal is to

make sure the deer have everything they need.” Bronson said.

Bronson hopes to begin marking trees this summer, with harvesting taking place over the 2014-2015 winter. If all goes as planned, fencing could begin going up by summer, 2015. The fencing, which will be 10 feet tall above ground, will also be anchored below ground with extensions 3 feet outward to discourage burrowing by predators. The current plan is to have the enclosures ready for deer by the winter of 2016-17.

Once a deer is in an enclosure it will not be released, although fawns could eventually be moved to different enclosures to help prevent inbreeding. The state will test all of the deer in the study for disease. Since the captive deer will all be marked with ear tags and will be wearing GPS collars, if one did somehow get out, it could be tracked down and brought back. The enclosures will be stocked with local deer, but the 36 deer initially required for the study will not be taken from one small area.

I for one am very impressed with the planning details that have gone into this study, as well as the potential it offers to measure a variety of parameters related to deer density. The enclosures will allow close observation of deer health and population dynamics along with their connection to forest health. Being able to apply different forest management plans with different densities of deer will gain metrics that will eventually allow managers to better help private landowners to who are looking to improve habitat on their own properties. Being able to make observations on body condition and antler growth on deer, and relating that to the habitat will provide data that will help wildlife managers in the future as well.

One of the specific factors to be looked at in the study will be to determine the upper limit of range carrying capacity. “At what point does everything just start falling off the rails from an ecosystem perspective?” Another benefit involves developing more precise tools for estimating deer population numbers. Bronson said there may be ways to use trail cameras as tools to estimate deer population numbers.



Photo contributed by Ron Eckstein

That’s something that could be tested in the enclosures, which will have a known number of deer.

Not only are there endless research possibilities created by this enclosure study, but the study area could also be used as an educational tool for people interested in deer and forest management. Although once the experiment is up and running and the public will not have access to the area, the hope is to provide opportunities for organized tours so that interested groups can learn more about what is being learned. Dr. Bronson said that although the study is slated to run 30 years, it should yield some interesting data from a scientific viewpoint in as little as 5 years.

By the way, in case you are wondering...this study is being funded by the Pitman- Robertson Federal Aid in Wildlife Restoration Act. This fund is supported by the hunter excise tax imposed on the sale of all gun, ammo, and archery equipment used for sport hunting, and is earmarked for wildlife restoration and research. The history of this Pitman-Robertson Act is a fascinating story in itself that may be worthy of a future article if anyone is interested.

If any PIF members are interested in learning more about or following the progress of this study, or would like to express your personal opinions, feel free to contact me at resharka@gmail.com. I would be happy to hear from you. I think it important that we can have an honest dialogue among our diverse membership regarding issues like this, but based on true facts. What do you think about setting aside room

in future newsletters for member comments? Please let me, or Joe, know.

Finally, if you have access to the internet and are interested in the science of deer management, I would highly recommend that you check out the archived video of a talk entitled "The Science of Deer Management" given by Tim Van Deelen and Don Waller (both professors at UW-Madison) at last December's Minocqua Science on Tap presentation. The archived video can be found on the web by going to www.scienceontapminocqua.org and clicking on "Archived Videos." This is fascinating, informative stuff that I think anyone who has an interest in the health and well being of Wisconsin's deer herd and its connection with forest health should know and understand no matter what side of the fence you are on.

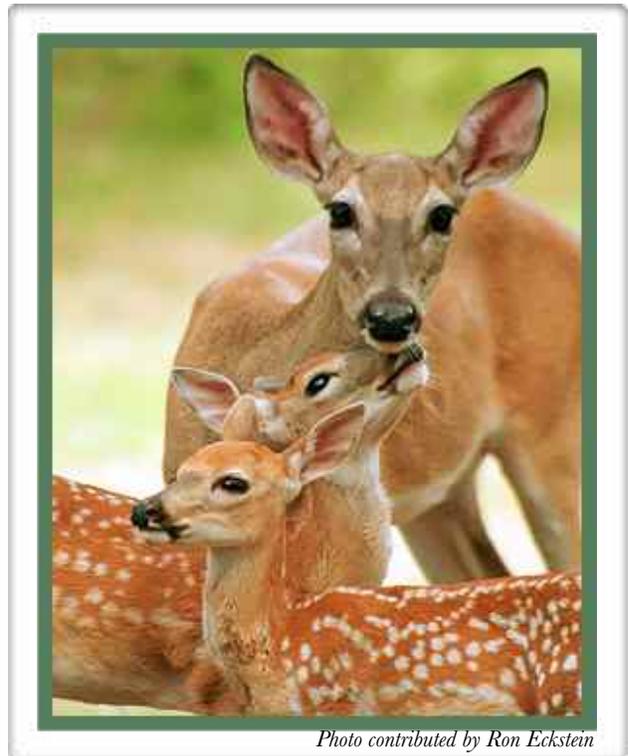


Photo contributed by Ron Eckstein

STATE of MICHIGAN SALE OF 10,000 ACRES OF PUBLIC LAND!

The Michigan Department of Natural Resources (DNR) is evaluating a proposal to sell 10,000 acres of contiguous, prime forestland in the eastern UP that DNR personnel have described as "the most productive forest land in the eastern UP." A company called Graymont has submitted a formal application, currently under review, to buy the 10,000 acres and the minerals underneath to mine limestone.

The DNR has existing lists of land they wish to sell and guidelines for what kinds of land they should sell, but this parcel meets neither of these criteria. Given this, long before an application was submitted, Garment should have been told its proposal was not in the interests of the state and would not happen. Instead, Graymont submitted the application, partly with encouragement of state legislators such as Sen. Tom Casperson of Escanaba pushing the fiction that "the state owns too much land" despite strong evidence that Michigan citizens love and cherish their public lands.

This is a very short sighted proposal that any one who cares about the values of public land and sustainable forestry short adamantly oppose.

From many of our members and friends in the U P.

Wisconsin Department of Natural Resources

To help prevent oak wilt, don't prune oaks April through July

Weekly News Article Published: March 18, 2014 by the [Central Office](#)

MADISON - To protect oak trees and help prevent oak wilt, the Department of Natural Resources advises people with oak trees on their property not to prune them from April through July. Spring and early summer pruning makes oak trees vulnerable to [oak wilt](#), a fatal fungal disease of oaks.

In fact, homeowners should take special care and avoid wounding oaks in any way from April through July. Any action that provides an opening into the tree, such as carving initials into the tree, accidentally cutting exposed roots with a lawn mower, or attaching a birdfeeder or clothes line, could provide an opportunity for the oak wilt fungus to invade and establish itself in the tree.

"Pruning deciduous trees in general should be avoided in the spring, as this is the time when tree buds and leaves are growing and food reserves are low," according to Don Kissinger, a DNR urban forester.

Builders and developers also need to be very careful, as many oak wilt infections occur through inadvertent damage during the construction process.

While using tree paint or a wound dressing is not normally recommended on pruning cuts or wounded surfaces on most trees, oaks are an exception from April through July. An immediate light painting of wounds on oak trees is recommended during this time to help protect against the spread of oak wilt by beetles. "Just 15 minutes could be enough time for the beetles to land on a fresh wound and infect your tree," said Kyoko Scanlon, DNR's statewide forest pathologist.

While the risk of spreading oak wilt is low after July, homeowners should avoid pruning or wounding oaks until November, to be on the safe side. Check with your municipality to find out if they have their own oak wilt ordinances that you should follow as well.

Oak wilt is found in all Wisconsin counties except Ashland, Bayfield, Calumet, Door, Douglas, Forest, Iron, Kewaunee, Manitowoc, Price, Sheboygan, Taylor and Washburn counties. The disease was confirmed in Rusk County for the first time in 2013.

More information about oak wilt and other forest pests is available on the Wisconsin DNR website. Visit dnr.wi.gov and search the words "[oak wilt](#)" or "[forest health](#)." Additional information about proper pruning techniques is available from your community forester, a [University of Wisconsin-Extension agent](#) (exit DNR), or DNR [urban forestry coordinators](#).

FOR MORE INFORMATION, CONTACT: Kyoko Scanlon (Fitchburg) 608.275-3275, Don Kissinger (Wausau) 715.359-5793 or Brian Schwingle (Merrill) 715.536-0889.

The Official Internet site for the Wisconsin Department of Natural Resources

101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621



*Oak trees infected with oak wilt.
DNR Photo by Kyoko Scanlon*



John DuPlissis is an Extension Forestry Specialist and Professor of Forestry in the College of Natural Resources (CNR) at the University of Wisconsin - Stevens Point (UWSP). John will tell you that he has the best job in the world because he gets to work with woodland owners and woodland owner organizations as part of his responsibilities include managing Wisconsin's Woodland Leadership Institute and Master Woodland Steward Program.

SEEDLINGS, SITE PREPARATION, AND A SUCCESSFUL TREE PLANTING PROJECT

It is never too soon to start thinking about a tree planting project! In fact, I have often heard it said that the best time to think about planting a tree was ten years ago. When you stop and think about it... the benefits you hope to receive from planting a tree will take a while if you plan to plant seedlings. So, ten years ago probably would have been the best time to think about it. However, since you have the interest now...now is the time to get it done!

If you are interested in planting trees this spring you will want to talk to a DNR forester, private consulting forester, or your County Land Conservation Department (LCD) or Natural Resource Conservation Service as soon as possible. These folks can help you plan your tree planting project, select and order the appropriate tree species, let you know about cost-share programs that may help you cover part of the cost of the project, and help you find folks who can help with site preparation, planting and weed control if you don't have the resources to do this yourself.

Let's start with sources of assistance for planting your project. A better place to start might be... Why do you even need to talk with a forester? The simple answer is because you want to plant the right tree in the right place. Some projects are simple and may not need a lot of planning up front to be successful. But most are not and you should talk to someone who can help you determine which trees will provide you with the benefits that you want and are adapted to the soils where you will be planting them. When it comes

to planting trees everyone always seem to forget about where they are going to plant them and what they are going to plant them in. Understanding the types of benefits that you want to get from your project (timber, wildlife habitat, snow/wind control, recreation, aesthetics, etc.), the soil type, and other local factors like lakes, wetlands or streams, roads, agricultural fields, etc... can make a big difference in choosing which trees your should plant.

The next step is purchasing seedlings. A good place to start is the Wisconsin Department of Natural Resources' State Nursery Program. There is a wealth of tree planting information on their webpage. In addition to listing available tree and shrub species (and prices), the publications and videos on this website offer detailed information on site preparation, plantation maintenance, and the supplies needed to maximize planting success. You can look through the Wisconsin Seeding Catalog and if you find what you are looking for you can order trees using the Tree and Shrub Order Form. "Seedlings grown at the state nurseries are high-quality native species grown from seed harvested in Wisconsin," according to Nursery Specialist Avery Dorland and you can't do better than that! Depending on the county that you are in your LCD may have conservation tree seedlings available for purchase. These trees are often ordered from the DNR but they often order seedlings from other nurseries as well depending on what is available and what is generally recommended for planting in the county. However, you are not limited to work with conservation tree seedlings grown at a

DNR nursery. There are a number of private nurseries that sell seedlings that may be adapted to your location and soils. Again, working with a forester can help you decide which of these sources of planting stock may be right for you.

Depending on the type of project that you have in mind you may be eligible for cost-share assistance through the Wisconsin Forest Landowner Grant Program or the Federal Environmental Quality Incentives Program. These are the two most likely sources of financial assistance. However, there are many other programs and agencies and organizations that offer financial assistance if the project that you have in mind matches with the goals of the organization or program. Again, talk with your forester, land conservation department or NRCS technician to learn what might be available to help you.

Finally, it is important to remember that good site preparation is the key to a successful tree planting project. Seedlings planted on a well-prepared site will have higher growth and survival rates than seedlings planted on a site with little or no preparation. I have heard it said that you plant a one-dollar tree in a ten-dollar hole and I agree. It is far cheaper in both time and money to take the time up front to plan, prepare, plant, and maintain a project than to let it fail and try to replant or inter-plant seedlings into a failed planting.

What is site preparation? Site preparation is the process of creating soil conditions that will allow either desirable volunteer

seedlings or planted seedlings to become established, grow, and survive. This means destroying any and all existing woody and herbaceous vegetation as well as sod forming grasses that will compete with your seedlings for growing space, sunlight, water, and nutrients. The destruction of competing vegetation will greatly improve the growth and survival of your seedlings. A good example of site preparation is spring tillage that many farmers use to prepare their ground for planting agricultural crops.

Why is site preparation so important? Site preparation is important because it creates soil conditions that insure good root to soil contact and allows for the growth of the seedling's root system. The major cause of failure in conservation tree planting projects is air pockets in the soil (poor root to soil contact) and soil compaction. Good site preparation can avoid both of these situations.

It is never too late to think about planting trees but time is running out fast. My biggest concern with tree planting projects that are planned in winter or spring just weeks before the trees go in the ground is whether the ground is adequately prepared and whether the seedlings are adapted to the site and soil conditions. Once you get to this point of the year the DNR nurseries are starting to run low on stock and if you are seriously interested in a successful tree planting project then just any old seedlings just won't do. There is still time to get this done but the clock is ticking...

Have you paid your PIF dues?

NHAL FORESTRY DEPARTMENT

by Jeff Olsen

For over 100 years the foresters at Trout Lake Forestry Headquarters have been involved in shaping the environment, the forest aesthetics and ecology of the northwoods. The State Forest program contributes to the economy of the area with jobs on the Forest and contract forestry work. The benefits to society are seen in the recreation throughout the lands and waters of the NHAL State Forest. We are proud to be a part of the Wisconsin State Forest system.

1911 saw the first seeds of a new forest planted at the Trout Lake nursery where the Forestry and Maintenance buildings are located today. You can see some of these pine trees today at the Star Lake Nature Trail. Currently we have 7 forester positions, several limited term employees, and supervisor to look after an active management program. For example, many pine trees are planted each spring, timber management plans developed and set up; contract for services are administered, close monitoring and suppression of small wildfires and inventory of each timber stand on the Forest is recorded every 20 years. We sell 1000s of cords of firewood permits, Christmas tree permits along with bough and bark gathering permits. It's a very busy year around organization to run. Check us out at, <http://dnr.wi.gov/topic/StateForests/nhal/>

A 2013 Overview of Forest Management on the NHAL

Wisconsin DNR lands are managed for multiple-use objectives as the 2005 NHAL Master Plan specifies. Along with non-timber objectives, the DNR lands are used to demonstrate various forest practices to the public, while meeting a variety of habitat objectives. Resource managers within the Department of Natural Resources use these objectives to manage each state forest as a healthy ecosystem. Each year, about two percent of the forest of the NHAL State Forest, DNR ownership is actively managed. On the NHAL, about 4300 acres were set up for management in 2013. This included pine plantations, red oak stands, natural white pine stands, aspen and white birch stands and northern hardwood stands.

There are also many stands of forest that are designated as passive management. This means no active management takes place on these stands to provide foresters with examples of natural process effects to older forest areas. Many of these stands are great areas for the public to hike and view the Northwoods as it existed undisturbed in the past. Forest managers also leave patches and individual trees that are legacies of the past forest in active management zones. These trees serve as seed sources and habitat that is rare in most of Wisconsin's landscape.

Of the area in active harvest more than 70 percent of the management prescriptions are selective, which reduce the density of stems to accelerate growth of the remaining trees and vertical structural diversity within the stand harvested. Approximately 30 percent of the stands actively managed each year are harvested using regeneration techniques. After harvest these forests are either replanted or regenerate naturally and will continue to grow and produce forests habitats and wood products for future generations. Regenerating forests also provide important habitat for species associated with young forests such as ruffed grouse, snowshoe hare and woodcock.

Harvested stands are either regenerated naturally or are planted with seedlings. The determination of which method to use is based on the ability of the site to regenerate naturally and the ability of the desired species to regenerate on a particular site. For example, if a site experiences hot and dry conditions planting may be the best alternative. This is most common for the pine species, especially jack pine.

Even-aged and uneven-aged management schemes are the harvest systems employed on Wisconsin DNR's land. Even-aged management includes clearcuts with reserves, seed tree methods, shelterwood cuttings, and intermediate thinnings. Uneven-aged management includes both individual and group selection techniques. Each of these systems and techniques are designed in conjunction with a particular tree species or community of trees. For example, uneven-aged single tree and group selection techniques are used in northern hardwoods, hemlock-hardwood, and swamp hardwood stands. In contrast, even-aged clearcuts are used in pine (red, white, and jack), paper birch, aspen, oak, northern hardwoods, scrub oak, aspen, fir-spruce, and black spruce stands. The selection of a management system and specific technique depends on many factors, including tree composition, age of the stand, location, accessibility, and most importantly the long-term objectives for the stand under consideration.

Adapted from DNR Forestry Website

Better Communication with Public Input

Forest certification standards emphasize a high level of communication with stakeholders (the public). To help assure open communication of annual work plans, each state forest is making those plans – including timber harvest and recreation development work – available to the public. The NHAL website has all our plans and timber sale areas posted. Annual public meetings are held to welcome public comments on annual work plans or any new major activities or projects. Certification Audit findings show the DNR’s efforts to involve and inform the public regarding management programs through use of the web, mailings, public meetings and newspapers clearly exceed the standard.

Strong Cooperation

NHAL develops its programs to promote the conservation of native biological diversity, including species, wildlife habitats and ecological or natural community types, at stand and landscape levels. Strong cooperation among the Division of Forestry and the Bureaus of Endangered Resources and Wildlife Management has led to an exceptional program for the conservation of native biological diversity. The program clearly exceeds the standard in protections afforded rare, threatened or endangered species or communities.

It all comes down to a healthy State Forest that is managed well and is certified to prove it meets strict National and International standards. Please enjoy your visit to our Forest. We are very proud of it!

Forest Certification of the NHAL Confirms a “Green Forest”

After Governor Jim Doyle issued an October 2003 directive calling for exploration of certification for the state forestry program, the Department of Natural Resources quickly responded by obtaining dual Forest Stewardship Council (FSC) and Sustainable Forest Initiative (SFI) recognition of Wisconsin’s 510,000-acre state forest system by May of 2004. The Wisconsin State Forests have been certified to the Sustainable Forestry Initiative (SFI) standard, 2005-2009 Edition (SFIS) since May 5, 2004. State Forest certification has now been renewed for another 5 year term. The scope of the Wisconsin SFI Program recertification encompasses programs for management of several categories of state lands beyond state forests, including state parks, wildlife lands and other categories of generally forested lands. DNR land included in the total certification project includes approximately 1.5 million acres in Wisconsin.

Independent, third-party forest certification means management of Wisconsin’s state forests meets strict standards for ecological, social and economic sustainability. Wisconsin’s state forests are certified to conform to FSC standards, an international approach, as well as SFI standards which are designed primarily for North American forests.

There are nine principals of sustainable forestry, which are described in the Sustainable Forestry Initiative Standard as:

1. Sustainable Forestry

To practice sustainable forestry in the present without compromising the ability of future generations needs by practicing a land stewardship ethic that integrates reforestation and the managing, growing, nurturing, and harvesting of trees for useful products through the conservation of soil, air and water quality, biological diversity, wildlife and aquatic habitat, recreation, and aesthetics.

2. Responsible Practices

To use and to promote sustainable forestry practices among forest landowners that are both scientifically credible and economically, environmentally, and socially responsible.

3. Reforestation and Productive Capacity

To provide and monitor regeneration after harvest and to maintain the productive capacity of the forestland base.

4. Forest Health and Productivity

To protect forests from economically or environmentally undesirable wildfire, pests, diseases, and other damaging agents and thus maintain and improve long-term forest health and productivity.

5. Long-Term Forest and Soil Productivity

To protect and maintain long-term forest and soil productivity with certified practices applied to all harvest areas. The latest science and continuous improvement is applied.

6. Protection of Water Resources

To protect open water bodies and adjacent vegetative areas from erosion.

7. Protection of Special Sites and Biological Diversity

To manage forests and lands of special significance (biologically, geologically, historically or culturally important) in a manner that takes into account their unique qualities and to promote a diversity of wildlife habitats, forest types, and natural community types.

8. Legal Compliance

To comply with all applicable federal, provincial, state, and local forestry and related environmental laws, statutes, and regulations.

9. Continual Improvement

To continually improve the practice of forest management through training and monitor, measure and report performance in achieving the commitment to sustainable forestry.

Jeffrey Olsen

Natural Resources Team Supervisor
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Boulder Junction, WI 54512



*Crystal and Fallison Lakes (left to right)
Photo contributed by Ron Eckstein*



*NH_AL State Forest
Photo contributed by Rod Sharka*

PIE: Many Partners in Forestry members are very concerned about equitable real estate taxes and a steady threat to the MFL program over the years. The following is an attempt to remedy this, by the beginning of a new organization that intends to be politically active in watching out for woodland owner's interests.

The following is from the newly formed Wisconsin Alliance of Forest Owners. We will keep you updated as we learn more.

About Us

The Wisconsin Alliance of Forest Owners (WAFO) is an organization of private woodland owners who have recognized there is a need for us to become more politically active.

Privately owned woodlands are increasingly threatened by state actions that have encouraged destruction of these forests by providing strong incentives that promote less beneficial land uses.

Other non-profit organizations exist that provide important resources for woodland owners. However, these educationally based organizations have limited ability to lobby or influence regulations that are in the best interests of privately owned woodlands. As one lobbyist succinctly said "Private woodland owners have been on the table, not at the table."

We Are

- We are farmers whose crop is trees.

Our crop supplies the fiber and logs needed to power Wisconsin's 20 billion dollar forest products industry.

- Some of us grow only trees. Some of us are tree farmers who also grow corn, soybeans, raise animals and produce milk.
- All of us are farmers who recognize that growing trees is often the most appropriate use of our lands.
- We are landowners who understand that healthy, actively managed woodlands provide clean air and water while preventing soil erosion and loss.
- We recognize that diverse, managed forests provide critical wildlife habitat for game and non-game species while providing refuge for people who appreciate the outdoors.

Why is the Wisconsin Alliance of Forest Owners Needed?

- We are the forgotten farmers, the stewards of the land who are poorly represented in our state government.
- We are the landowners whose lands are unfairly taxed. We are the people who grow trees, an agricultural crop that's been excluded from receiving many of the incentives the state offers other agricultural producers.
- We've learned that unless we get organized; unless we form an organization that can effectively advocate and lobby for us, we cannot get legislation adopted that will treat us fairly.

Our Goal

Our goal is to advocate for equitable treatment of Wisconsin woodlands and woodland owners regarding property taxes, income taxes and special regulations and restrictions.

Join Us

- Please sign up for our contact list so we can send periodic alerts on proposed legislation and agency proposals that could affect your woodlands. The more contacts legislators receive, the more likely we'll be able to advance our mutual interests.
- Consider providing a donation to help us reach out to more landowners and to retain a lobbyist to work on our behalf. Our founding group provided the ideas and funds to get WAFO started and to set-up the essential structure and components of the organization. We are moving forward and need your help. Please know that donations to WAFO will not be tax deductible. It is not our intent to compete with any other woodland related organization.

Wisconsin Alliance of Forest Owners | PO Box 7423, Madison, 53707

Questions: Email Kristie Kasbohm at wiforestowners@gmail.com or call (608) 218-4789 www.wiafo.org

Two articles from the April 2014 Northern Wisconsin's Forest Insect & Disease Newsletter, reprinted with permission from Brian Schwingle.

April 2014

Northern Wisconsin's Forest Insect & Disease Newsletter

Wisconsin Department of Natural Resources
Division of Forestry

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Newsletter Information

You're Getting a New Forest Health Specialist in N.W. Wisconsin!

Paul Cigan plans on starting work as the new DNR forest health specialist for northwestern Wisconsin sometime in late April. He'll be based out of the Spooner ranger station. Like all of my counterparts, he'll be responsible for dealing with all things "forest health" on the non-federal land in his 9 counties. I'm really looking forward to helping Paul get started. He'll need some time to get up and running, but don't hesitate to let him know what you're challenged with in terms of forest health in northwestern Wisconsin. Please welcome him when you have the opportunity and use his help when you've got forest health problems.

Browning Conifers (not along roadways)

Hemlocks, Colorado blue spruces, Christmas plantation firs, and yews have *really* been browning quickly for the last several weeks. I first noticed this change perhaps in late February. The cause is...the cause is...[control+alt+delete]...ah that's better. I had to reboot by brain. It locked up after reading conflicting information from "reliable" sources. I guess my brain is a PC.



Figure 1: An eastern hemlock with winter injury. The section that was buried in the snow during the majority of the winter remains uninjured.

(Continued on page 2)

(Continued from page 1)

You may have heard of winter drying, winter desiccation, winter burn, and winter scorch, but let's call this late winter browning "winter injury." Winter injury on conifers is needle damage caused by abiotic stress(es) occurring between late autumn and spring growth.

Research examining winter injury on red spruce strongly suggests winter *freeze* injury is primarily responsible for causing browning needles in the dormant season. In support of this, [Man et al. \(2013\)](#) summarize the issue beautifully: "Although desiccation has commonly been used to explain conifer needle and bud damage during the dormant season...a direct link has yet to be established." I will admit, I'm guilty of explaining this phenomenon in previous years as winter drying.

The concept with winter freeze injury is some conifer needles lose their cold hardiness during winter days with much solar radiation and very little wind. After sundown, Jack Frost quickly returns to the needle microclimate and kills the cold de-acclimated needle cells. This de-acclimatization can occur in mid-winter well before



Figure 2: Winter injury on firs (unknown species) and eastern hemlocks in Lincoln Co. The symptom severity on the side of the crowns facing the sun (A and C) are greater than the symptoms on the north-facing crowns (B and D). Note also that only the most recently grown shoots are injured on the hemlocks. This is typical of winter injury.

(Continued on page 3)

(Continued from page 2)

symptoms are obvious. It typically occurs on only the latest year of growth on the side of the crown facing the sun. Freeze-damaged cells likely lose water quicker than living cells, so late winter warm-ups dry out freeze-damage cells quickly and exacerbate symptoms.

What will be the impact? Let's wait and see. I suspect mortality will be non-existent as long as no silly sawfly eats all the new growth. Keep in mind that along roadways, salt damage compounds the impact of the apparent freeze injury, which makes those road-side trees more susceptible to additional stressors.

This Winter's Impact on Bugs

All the gypsy moth eggs I collected back in January from Vilas and Oneida County failed to hatch in my office. I suspect the hatch failure has something to do with our cold winter. From this extremely small sample, I'll make the bold prediction that gypsy moth will not cause any noticeable defoliation in 2014 in Wisconsin's northern 18 counties.

Other than gypsy moth egg mortality from our winter, I doubt we'll notice any drastic change in our current critter cadre in northern Wisconsin. After all, the ones that have caused significant damage as of late (twolined chestnut borer, eastern larch beetle, spruce budworm) are natives and laugh hysterically when we express our opinion that thirty below is cold.

Weatherspark.com is an excellent resource to efficiently check on extreme temperatures. From November through March in major populated areas across the northern 18 counties, it looks like Tomahawk came in with the coldest recorded winter low at -32°F , followed closely by Phillips and Merrill at -31°F . Most of these temperatures are recorded at places like airports and not frost pockets, so surely some low lying areas of the Northwoods reached below those temperatures.

The following list (next page) contains insects and *examples* of their *possible* supercooling temperatures. In no way is this list official. It is illustrative. Supercooling temperatures signify when freeze-intolerant insects freeze and die. These data come from many published papers and should be taken with an enormous grain of salt because of countless variables that impact supercooling data (e.g. month, microclimate of overwintering niche, genetics, temperatures in summer and autumn, and more) and because these data are reported as means *or* extremes. When pondering this list, consider the incredible thermal buffering

(Continued on page 4)

(Continued from page 3)

capacity of snow and ice. Unless specified, these temperatures do not necessarily signify 100% mortality:

- eastern larch beetle larval supercooling temp. in December: -56°F
- emerald ash borer prepupal supercooling temp. in November: -31°F
- forest tent caterpillar egg supercooling temp.: -45°F
- gypsy moth egg supercooling temp. uncovered by snow: -22°F for 2 days
- hemlock woolly adelgids: <2% survived in March when exposed between -22 and -13°F

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Northern Wisconsin's Forest Insect & Disease Newsletter produced by



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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 Northern Wisconsin with regional up-to-date forest health information. I welcome your comments/suggestions on this newsletter *and your reports on forest health problems you observe in your area*. If you would like to subscribe to this newsletter, please contact Brian Schwingle at brian.schwingle@wisconsin.gov. Previous issues of this newsletter and regional forest health updates from other Wisconsin regions are available at <http://dnr.wi.gov/topic/ForestHealth/Publications.html>.

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FUTURE ARTICLES

If you have questions that you would like to see addressed in the newsletter, suggestions for, or have articles for, future newsletters, please contact us at partnersinforesy@gmail.com or by mail:

Partners In Forestry
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Conover, WI 54519

DELICH LAND EXCHANGE ON THE OTTAWA NATIONAL FOREST: A COSTLY MISUSE OF PUBLIC MANAGEMENT

by Joe Hovel

*“Now as through this
world I ramble,
We see lots of funny
men,
Some will rob you with
a six gun,
And some with a
fountain pen!”*

*Woody Guthrie ‘Ballad of
Pretty Boy Floyd’*

*“What will you grow
up to respect?
What will you grow up
to protect?,.....
.... determine your own
wrong from right,
Color your perspective
black and white,
They’ll label ya weird,
but thats alright,
They’ll thank you in
the end when they see
the light!”*

*Barry McGuire ‘Child
of our Times’*

Since 2006 (see process timeline and relevant facts at the end of this article), the proposed Delich Land Exchange has been consuming time and resources of many, and in my opinion represents a severely miscalculated judgment by the Forest Service. In the scheme of things, where federal lands exchanges number about 300 annually across the country, this one may appear to be minor. To a number of people in this region, this local exchange is a major travesty and injustice.

Land exchanges are normally enacted with goals of consolidating ownerships streamlining management. The Ottawa National Forest states this in their very narrow purpose for this project, and this objective seems to have become a boiler plate mantra to justify exchanges. Yet, realized beneficial results from these exchanges often are not clear in terms of public benefit.

There are several federal laws which promote or allow these exchanges, including the General Exchange Act and the Weeks Act, yet all exchanges are required to meet the public interest and further the goals of the forest plan. In that, the proposal should: 1. achieve better management, 2. meet the needs of the public and the economy, and 3. protect habitat, valuable resources, aesthetic values and recreation.

In the case of the Delich exchange, we argue that these criteria are not met. One thing I believe to be certain is that for an exchange (or many other public land issues) to serve the public interest, the public must be deeply involved. The public must think critically, become well informed, and stay persistent in scrutiny of the proposal in question. I hope PIF has fulfilled that role, I can assure you several of us tried very hard.

I see in this proposal a process gone awry, this exchange becoming a convoluted procedure in a state of flux as they search deeper for justification of a bad decision. I find it otherwise impossible to explain the loss of Wildcat Falls because ‘there are other waterfalls’ on the Ottawa National Forest, or to explain the justification of North Country Trail being moved further from the parcel after the Forest Service touted the recreational benefits of the trail, or the fact that the compensatory land value for the Forest Service parcels is less than the timber value alone, with Supervisor Scardina stating that he did not make this decision on economics (apparently the decision was made without the decision maker reading the appraisals), and that the Delich land will heal over the next 100 years. Equally baffling is the brazen statement by Supervisor Scardina in the March 2012 meeting that: ‘I could approve a bombing range on the forest and as long as I disclose it, it will be legal under NEPA.’

NEPA, the National Environmental Policy Act, provides the structure for public involvement in federal actions like this. NEPA requires full disclosure and analysis of the environmental

impacts of an action. An Environmental Assessment is completed, and suffices if an action is considered 'insignificant.' If an action is considered 'significant' a much more detailed analysis needs to be conducted in the form of an EIS, an Environmental Impact Statement. In this case, the Ottawa National Forest considers this action insignificant, supposedly because there are other waterfalls for people to view, and because there are other areas with old growth features. They also consider this action to be non-controversial, reasoning that 40 comments against an action are statistically no different from one. We, of course, do not agree with any of this reasoning.

These exchanges may see a variety of costs borne by either party. In the facts below we state the cost projected before our first appeal, which has been dramatically surpassed after two appeals and two years of litigation. I learned these numbers in a 2011 FOIA request, as I felt the public has a right to know. This exchange has truly become a costly venture to make a serious mistake, and I am proud to have opposed it.

In closing, we all need to be diligent about our own land management as well as public land management, as these public lands belong to us all. I become infuriated when I see unsuspecting and uninformed politicians attacking the Land and Water Conservation Fund (LWCF). These attacks harm us all, and in a case like this can drive bad land exchanges. An alternative that was dismissed early on was purchasing the Delich parcel, because Congress and the Forest Service have been unwilling to give the public a clear choice by the rhetoric that "LWCF funding is too uncertain for outright purchase to be considered as a serious alternative." Ultimately, fights like these remain important as a statement against the precedent of these transactions carrying through without careful attention to involve the public and weigh the concrete, real benefits or detriments to the public interest.

Background on the Delich parcel and the proposed trade

Bob Delich purchased the 421 acres the Forest Service would acquire in early 2006 for \$380,000. He cut most all the merchantable timber off the property shortly after.

Bob Delich approached the Forest Service and instigated a land trade, at first asking for more acreage than the 240 acres justified by the appraisal. The exchange is now 240 acres of federal land and \$26,000 cash to go to Delich.

The appraisals are federal yellow book certified in 2010.

The Forest Service received at least 40 comments opposing this exchange, compared to one or at best two (counting a "neutral" comment) supporting it.

The Forest Service parcels of 240 acres were valued at \$1210 per acre. 160 acres of the 240 total is near Wildcat Falls and County Line Lake, and this area is the heart of opposition to this trade. The actual timber value of \$1310 per acre (2010 cruise), was reported in the 2010 appraisal. Actual timber values have climbed since. A recent (second half of 2013) yellow book appraisal by the same appraiser states, "...wooded land in the Upper Peninsula in general continues to decline (2.6% annually since 2007)," essentially demonstrating that the difference between timber and land values are now even greater than they were when

the original appraisals were done. Timber values have risen and land values have declined. The Forest Service lands will bring significantly less in compensatory value than the timber value.

The Delich property, which has minimal residual timber volume with insignificant timber value, was appraised at \$750 acre (\$316,000). In the proposed trade, Forest Service makes up the difference in cash, paying Mr. Delich an additional \$26,000.00 for the trade.

The Wildcat Falls-County Line Lake parcels exhibit old growth character including increasingly rare hemlock and cedar. They also include unique and impressive moss covered rock out crops, Scott & Howe creek and Wildcat Falls, and associated wetlands.

A March 2011, FOIA request demonstrated expenses of the proposal (before either appeal process and prior to legal action) to be \$16,600 for the Ottawa National Forest and \$11,000 for Delich. Costs of appraisal (\$4000), title research (\$1700), environmental site inspections (\$8700), NEPA (\$12,000) are examples.

The Delich parcel is ubiquitous stump sprout aspen and re-growth northern hardwood, with no outstanding features. The Forest Service admits that it will take at least 100 years for this land to recover.

Delich Land Exchange and PIF involvement timeline

2006: Bob Delich purchases a well timbered 420 acre parcel south of Porcupine Mountain State Park (Porkies), adjoining the Ottawa National Forest.

Feb. 2007: The Deliches propose a trade for 320 acres of federal land for the 420 acres after they have harvested most all merchantable timber.

Jan. 8, 2009: The Deliches sign an exchange agreement with Ottawa National Forest (ONF) then-supervisor Susan Spear.

Feb. 2009: Under the National Environmental Policy Act (NEPA), the ONF sends out preliminary 'scoping' document, soliciting public comment. PIF submits comments expressing many reservations and questioning the proposal's benefits to the public. In 2009, PIF conducts field visits of the Delich lands and the Forest Service lands near the unique Wildcat Falls.

Jan. 2010: Alarmed by the proposed exchange advancing to an Environmental Assessment (EA), long time PIF member Pat Oltz encourages PIF to oppose the exchange. After conducting extensive research and fact gathering, PIF writes strong objection to the exchange proposal in commenting on the EA.

2010: ONF hires appraisals to be completed on the Delich 420 acres and on the 320 acres of ONF lands in the proposal.

Feb. 4, 2011: Decision Notice and Finding of no Significant Impact (DN/FONSI) is signed by acting ONF Supervisor Keith Lannom for 420 acres of Delich land to be acquired in exchange for 240 acres (and \$26,000 cash) of ONF lands, including Wildcat Falls. The findings of the appraisal necessitated dropping 80 acres of Forest Service land to bring values closer.

March 21, 2011: PIF files Administrative Appeal with Regional Forester. PIF also makes successful FOIA request for appraisal documents and correspondences of the record regarding the exchange.

April 2011: PIF representatives Rod Sharka and Joe Hovel meet with Keith Lannom and ONF staff in an attempt to resolve differences stated in appeal.

May 13, 2011: Acting Regional Forester and Appeal Deciding Officer Logan Lee reverses the DN/FONSI of 2-4-11, agreeing with points in the PIF appeal that the old growth potential of the hemlock-cedar stands on the Forest Service lands near Wildcat Falls was not fully disclosed.

June and Sept. 2011: ONF correspondences to Delich's state that the exchange proposal is null and void, but in same time period prepare to reinstate the exchange process.

Oct. 13, 2011: ONF releases a revised EA. In following weeks more than 3 dozen comments (including PIF) opposed the proposal, one supported it and one was neutral.

Dec. 19, 2011: Forest Service denies, in part, a PIF FOIA request for further correspondence concerning the exchange and values.

Dec. 28, 2011: ONF Supervisor Tony Scardina signs a new DN/FONSI.

Feb. 2012: PIF, Sharka, Hovel as well as other individuals not associated with PIF, file Administrative Appeals with the Regional Forester opposing the exchange.

March 2012: Sharka, Hovel and others meet with Scardina and staff in an unsuccessful effort to resolve the appeals.

April 1, 2012: Over 100 people expressing concern over the proposal gather for a hike to view the features on the Wildcat Falls parcels.

April 13, 2012: Regional Forester and Appeal Deciding Officer Charles L. Myers denies PIF and all other appeals.

April 21, 2012: Retained by PIF and seven other plaintiffs, attorney Marianne Dugan files a notice of impending lawsuit to the US attorney.

At present, lawsuit continues, having moved through complaint, answer to complaint, brief, response brief, reply brief, etc., as we await a decision by the court.

PHOTOS OF WILDCAT FALLS
CONTRIBUTED BY ROD SHARKA



Outcrop orchid



Steve Garske, botanist for GLIFWC, by white pine at Wildcat Falls



Beaver pond above falls

READERS' COMMENTS

And we were taken to task about the firewood tables by our good friend, forester, accountant and wood burner Geary Searfoss:

I think you're too hard on those lesser species of wood. Sure, they don't bank the woodstove with coals to last the night but having a mix of the lighter woods in the woodshed are helpful to me in many ways:

- When lighting a fire, they start more readily than do the heavier woods. Using the lighter woods I can have a roaring fire in no time. Trying to get hard maple going takes a bit longer.
- Sometimes I just want a short duration fire. I may need some heat to take the chill off but I don't want to bake.

So I don't shun basswood, aspen, pine, red maple or any other wood. They all go in the woodshed in moderation.

Geary N. Searfoss, CPA, EA, CF

Following are comments from retired FS Silviculturist Marion True: Note: at the upcoming PIF field day on basal area and measuring we will build some basic but very adequate Biltmore type sticks to aid in this measuring. And members have their FS Field Manuals to help in this learning endeavor as well.

I enjoyed the news letter article on B.A. I use it all the time . Your explanation seemed to be right on. I use the 10 factor prism. When you put the prism up to your eye and begin the sweeping search for tally trees, the prism is only a few inches from your eye. However, if you want to be quite precise, have a walking stick stuck in the ground at plot center. As you sweep, around, keep the prism over the top of the stick. As you view the offset image of each tree thru the prism it is sometimes difficult to tell if a tree near the borderline is in or out. For instance a tree that is 12.0 inches DBH would be out (no tally) if the distance plot center to tree center is greater than 33.00 feet. I carry a 75' logger's tape to measure plot center to tree if that accuracy is desired. Now, what about the coins. I forget which coin it is. Some of your readers may be up on this. Universities and extension also may have data on this. Drill a hole thru the bottom edge of the correct coin, tie a piece of string to it and make a knot exactly 25 (??) inches from the coin. Put the knot between your teeth and stretch the string and coin out 25 inches. As with the prism have the coin over plot center and begin your sweep. Line sight the right side of the coin on the right side of the tree at DBH. Then, without moving, quickly shift your vision to the left. if you can still see some of the tree on the left, then the tree is close enough to be a tally tree. What you have is a 10 factor gauge. Check out string length with coin size as I am typing this from memory. Your fingernail works the same as a coin. A chart showing your nail width x a corresponding string length will provide a BA factor. it may be, say, 8 or 9, if you have short arms and wide nails.

CORDWOOD volume estimates FOR B.A. PLOTS--- cords/ acre = (#trees + # sticks) divided by 2 x # BA plots. Example #1: 1 plot with 4 aspen trees with a total of 12 cordwood sticks. $4 + 12 = 16$ divided by $(2 \times 1) = 8$ cords/acre. Example #2: 4 plots with 16 trees with a total of 56 cordwood sticks. $16 + 56 = 72$ divided by $(2 \times 4) = 9$ cords/acre.

SAWTIMBER volume estimates FOR B.A. PLOTS---Bd. Ft./acre= (# 8 foot sawlogs x 300) divided by # BA plots. Example: 10 sawlogs in 5 trees over 3 BA plots. 10×300 divided by $3 = 1000$ BF/ acre.

These two are easy to use and fast. Comments and experience with this or something similar would be interesting For trees with both sawtimber and cordwood I simply reduce the sawtimber logs and proceed as above for cordwood volume. My References: Handbook for Service Foresters, N.E. Area S.& P.F. 1976 by B. Ashley.

AND several which said this or something very similar.
"Kudos to Dick Steffes for an honorable and rewarding career benefiting the people of Wisconsin."

**ANNOSUM ROOT ROT TREATMENT GUIDELINE
AS CURRENTLY RECOMMENDED BY
THE WISCONSIN DNR BACKGROUND
INFORMATION ABOUT ANNOSUM ROOT ROT**

Contributed by: John Schwarzmann, Forest Supervisor
Board of Commissioners of Public Lands

Annosum root rot is caused by the fungus *Heterobasidion irregulare*. The pathogen attacks the cambium of the host trees and kills them as well as causing wood decay. First confirmed in Wisconsin in 1993, the disease has been found in 23 Wisconsin counties, including Adams, Buffalo, Columbia, Dunn, Green, Iowa, Jefferson, Juneau, La Crosse, Marinette, Marquette, Oconto, Portage, Richland, Sauk, Shawano, Taylor, Trempealeau, Walworth, Waukesha, Waupaca, Waushara, and Wood Counties.

Although both conifer and deciduous trees are infected, coniferous trees appear to be much more susceptible to the disease. Currently Annosum root rot is most commonly found on red and white pines in a plantation setting. Infection has been observed on jack, red, and white pines on overstory trees and red pine, white pine, jack pine, balsam fir, white spruce, eastern red cedar, oaks (both red and white), black cherry, buckthorn on understory. Of these species, mortality by the disease has been observed or suspected on red pine, white pine, jack pine, balsam fir, and eastern red cedar.

The fungus produces a fruit body near the soil line of an infected tree. Spores colonize mainly on the fresh stump, but also stem and root wounds. Stump infection is the most commonly observed pathway of introduction of Annosum root rot in Wisconsin. Once a stump is infected, the pathogen moves to nearby residual trees through root contact. Mortality of infected residual trees typically starts to appear 3-8 years after a thinning operation was performed. Since the fungus could persist in infected wood for many years, once the disease exists on a stand, control is very difficult. Therefore, prevention of this disease is very important.

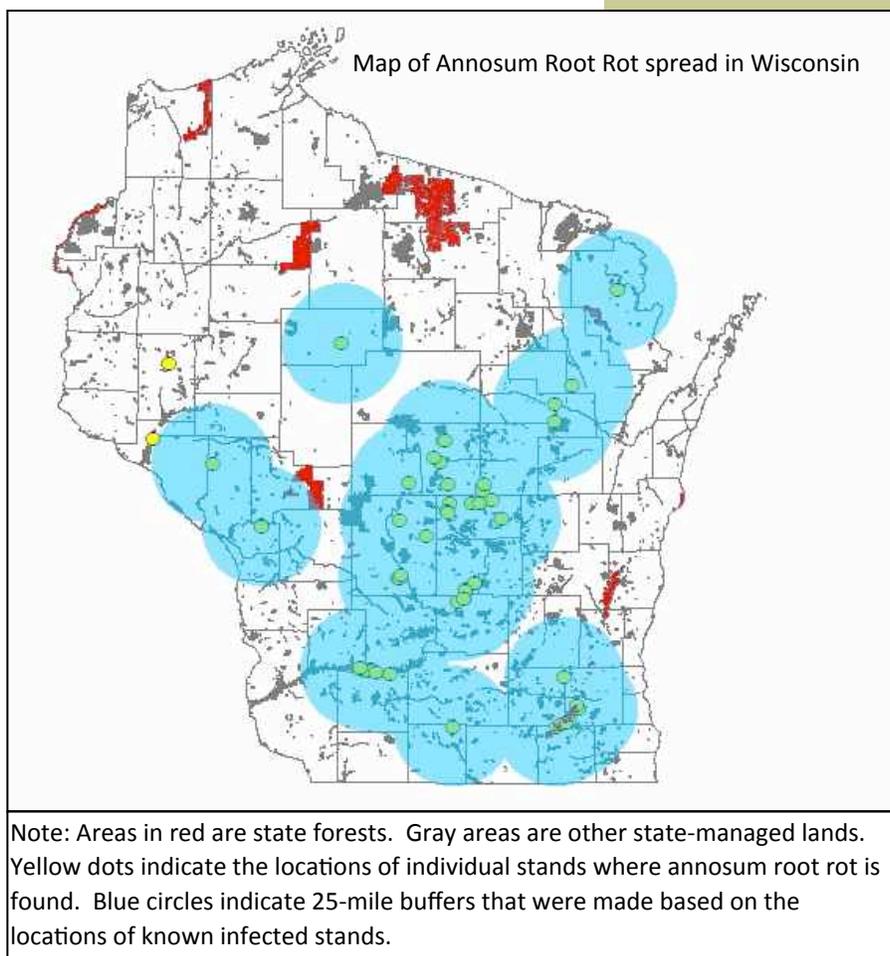
A fungicide application has been proven to be effective to prevent establishment and growth of the pathogen on fresh cut stumps that are not infected yet. Two products are currently available in Wisconsin to prevent Annosum root rot. Sporex (sodium tetraborate decahydrate) is granular and can be applied using a salt-shaker style container or a special dispensing unit made of a PVC pipe and a plastic nozzle. Cellu-Treat (disodium octaborate tetrahydrate) is a water-soluble powder and can be applied using a backpack sprayer or an attachment to a processor.

Currently more than a dozen loggers in Wisconsin own a processor with a spray attachment. Due to the increased awareness for the disease and improved availability of loggers who offer the treatment, more stands have been treated with fungicides in Wisconsin. It is imperative to have the risk-based, scientifically-sound, and operationally-practical guide that can be used to help landowners, foresters, and loggers.

More information is available through the WI DNR website at <http://dnr.wi.gov/>. Key word: Annosum root rot.

The guide: Dichotomy annosum root rot treatment guidelines

1. Is the stand within *25/50 miles from a known stand of annosum root rot?
 - Yes – Go to 2
 - No – Go to D
2. Is the stand more than 50% pines (red, white, jack)?
 - Yes - Go to 3
 - No - Go to B
3. Is the stand going to have an intermediate thinning or final rotational harvest?
 - Intermediate Thinning - Go to A
 - Final Rotational Harvest - Go to 4
4. Is the future desired stand more than 50% pine?
 - Yes - Go to 5
 - No (conversion) - Go to B
5. Is the site going to be mechanically site prepped within one year?
 - Yes - Go to C
 - No - Go to A



Guidelines/Recommendations

A. Treatment is recommended.

B. Treatment is not recommended because the risk is not considered high on tree species other than pines based on the current scientific information about the disease and observations in Wisconsin.

C. Treatment is not recommended because it would be ineffective. The site prep work that is done within one year after harvesting will create new wounds that will be susceptible for the disease even though the treatment at the time of cutting will protect the stumps temporarily. Note that based on current scientific information, it is reasonable to believe that stumps will not be susceptible for infection when stumps are wounded one year or more after the stumps are created. Therefore if mechanical site prep is planned for one year or more after harvest, go to 5.

D. Treatment is not recommended because the stand is greater than 25 miles from a current known site. Note that the distance is based on confirmed sites and it is possible that there could be a site with the disease within 25 miles.

* There is still scientific debate on distance and a topic the DNR annosum committee did not have full agreement. To be on the safe side, a landowner may want to treat their pine stumps with fungicide anywhere in Wisconsin with the exception of the far NW part of the state or when snow is deep enough 18 or more inches deep. The deep snow will cover up fungus on old stumps so that spore release is not possible.

**Have you checked out
PIF's website?**

www.partnersinforesstry.com

The website is for members to expose your business, service or tree farm, share thoughts, ideas, articles, photos, and links.

This is your COOP, we need your input as much or more than your dues.

As a service to PIF members, contact Joe for special pricing in your needs for:

- Napoleon wood stoves
- wood finishes and preservatives
- garden and tree amendments
- grass seed for trails



PARTNERS IN FORESTRY
6063 Baker Lake Road
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"This institution is an equal opportunity provider."

Protecting your wooded land for the future is essential to clean water, clean air, wildlife habitat, sustainable wood supply...all things that are necessary to society and health, and that are gone forever if the land is developed.