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Partners News

SUMMER 2023

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.

Contact Us

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Landowner Cooperative

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PIF Board

Joe Hovel
Jim Joyce
Joe Koehler
Charlie Mitchell
Margo Popovich
John Schwarzmann
Rod Sharka

*Have you paid
your PIF dues?*

WELCOME NEW MEMBER(S)

Warren Kramer (June 2023)

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UNIVERSITY OF WISCONSIN CENTER FOR COOPERATIVES

A Big Thank You to the University of Wisconsin Center for Cooperatives for their continuing support of Partners in Forestry Cooperative and Northwoods Alliance Inc.

PIF Friends Notes and News

On April 25 Mike Dombeck was inducted into the Wisconsin Conservation Hall of Fame. We congratulate Mike on this tremendous recognition. We were proud to send Mike a statement of congratulations on this well deserved recognition.

Interestingly, another inductee into the Hall was posthumously for Dr. Byron Shaw. Dr. Shaw was deceased in 2016 and also had a career at UW Stevens Point. He was the science behind the groundwater contamination cited in Chapter One of Joe's memoir. Dr. Shaw was chastised for exposing the truth early on, an unpleasant truth at that. This was a sort of 'kill the messenger' logic used to discredit Shaw. However, as can often happen, the truth prevailed and seeing Dr. Shaw inducted confirmed that. As folk-rock legend Barry McGuire said in his 1966 'Child of Our Times' "Color your perspective in black and white, they'll label you weird but that's alright, they'll thank you in the end when they see the light!" Thank you, Byron Shaw, for being a truth teller.

Local Author-Naturalist John Bates deserves our thanks also, for publicly stating the truths of unintended consequences from the burgeoning yard insect control industry. Increasingly common, especially around area lakes, these days are yard signs where the unsuspecting and ill-informed owner shows pride in hiring the Mosquito Police or Tick Control or whatever names one sees. The consequences of course are the beneficial insects such as pollinators and the birds who eat the poisoned insects. One has to wonder if they are also creating a super bug, increasingly resistant to these yard treatments.

FYI – from Lumberjack Resource Conservation and Development Council, Inc (RC&D) Thanks to Quita

A new website www.yourforests.com! Funded through a Landscape Scale Restoration grant from the USFS, this site is meant to provide information to private forest landowners across the Lumberjack region seeking to improve, protect, or restore their land.

Please share with private forest landowners.

HEADWATERS CEDAR COMMUNITY FOREST (HCCF)

Northwoods Alliance Inc. is poised to close on the Headwaters Cedar Community Forest in very early August. For the first time in almost 30 years this property will be open to the public. The enclosed sign-map will show some visitor guidelines.

Several matters to keep in mind as you plan a visit.

In the coming months the gate which serves the access road for the private 10 acres within the HCCF (also called the private inholding) will be moved south a bit to allow parking space for visitors. It is imperative to not block the gate or the access road when you visit. If one is not comfortable parking on the road side until the gate is moved, just across the road on the state forest are access-parking spots.

We truly appreciate all who have helped achieve this goal, of providing a true community forest to Vilas County. This will be a tremendous compliment to the Wildcat Falls Community Forest and other Northwoods Alliance projects in the region.

These are your community forests, enjoy them and support them.

HEADWATERS CEDAR COMMUNITY FOREST

FUNDED IN PART BY USFS COMMUNITY FOREST & WISCONSIN KNOWLES NELSON STEWARDSHIP PROGRAMS

WITH WIDESPREAD COMMUNITY SUPPORT

NORTHWOODS ALLIANCE INC. 6063 BAKER LAKE ROAD CONOVER, WI 54519

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WE APPRECIATE YOUR VISIT AND NEED YOUR SUPPORT





The rare Treeflute lichen is present at HCCF.
Photo: Alex Graeff



One of many impressive cedar give HCCF its name.
Photo: Lance Powalisz



Main north-south trail on HCCF
Photo: Northwoods Alliance



*Eric & Julia Gustavson exploring Wildcat Falls
Community Forest at low water*

Pelican River Forest updates from May 16, 2023

See <https://pelicanriver.org/> for updates as the weeks pass.

Joe wrote the following opinion letter following the almost bizarre nature of the Oneida County Board May 16 meeting. This was in several local papers.

Dear Editor,

In a spectacle more suited to a third world dictatorship than a vibrant democracy, the Oneida County board made a strong statement against conservation of working forest lands on May 16. Ignoring the comments made by over two dozen folks including grandmothers longing for a harmonious future, the board shot a blow to the Pelican River Forest Legacy proposal.

While the action was not entirely unexpected, more than one board member's comments raised my ire. A board member rambled on about the people in Madison removing the severance (yield) tax on Managed Forest Law (MFL) lands such as the Pelican. The 5% tax on standing timber value harvested was removed on April 14, 2016 when then Gov. Walker signed Senate Bill 434, sponsored by two northern legislators- then Sen. Tiffany and Rep. Mursau. Sen. Tiffany hailed from Hazelhurst and Gov. Walker signed the bill into law at the Ponsee center in Rhinelander. Thus, that change which apparently harmed Oneida County, has an undeniable Oneida County footprint. Sen. Tiffany's April 2016 statement boasted of the elimination of the tax to '*deliver a tax cut to those harvesting trees by eliminating the severance and yield tax*'.

Another part of the Senator's statement reads. *We need to do all we can to ensure that Wisconsin mills continue to have a steady supply of Wisconsin timber.* Maintaining the Pelican River as a working forest would do just that. Thus, I would ask now Congressman Tiffany why he has not made a public expression in support of the project.

At the May 16 meeting, the comments of over two dozen proconservation voices expressed unwavering support for the Pelican River project and against the resolution in front of the board. Yet another board member was not satisfied with simply ignoring the wishes of those attending but went on to offend those who attended by publicly saying those people do not work for a living. One could also say the same about the board members attending daytime meetings.

Additionally, in response to a comment about representing the wishes of constituents, the board member said he did not necessarily listen to constituents but listened to Jesus, as if implying the pro-conservation commentors cannot follow Jesus. In my opinion, the board member has a responsibility to both constituents and to Jesus: However, the Jesus I hear wants us to protect Creation. What a great way to accomplish just that, by conserving the biodiversity of our region's natural resources through the Forest Legacy Program. Using this program to protect the Pelican River project recognizes the economic and social needs of communities (constituents) as well as the environmental and intrinsic values our faith would require.

Joe Hovel, Conover President of Partners in Forestry Cooperative

Supporting documents

Here is a link to the recording of the Oneida County Board meeting: https://www.youtube.com/watch?v=ROjH_lpWNHo

And the Statement of State Sen Tom Tiffany from 4-14-16

April 14, 2016 Statement by Senator Tom Tiffany on

Signing of Senate Bill 434 – Managed Forest Law Revisions

Madison – State Senator Tom Tiffany (R-Hazelhurst) released the following statement after Governor Walker signed Senate Bill 434:

“With a stroke of Governor Walker’s pen, Wisconsin’s Managed Forest Law (MFL) program has now been confirmed as a contract between the state and the landowner. Since I was first elected to the Assembly in 2010 and again in 2012 to the State Senate, the Managed Forest Law program has been a major issue for constituents in my district. Senate Bill 434 reforms the MFL program to make it more user friendly and easier to administer.

*Besides making the MFL a contract between the enrollee and the state, Senate Bill 434 also reversed a Gov. Doyle veto which will distribute over \$18 million in closed acreage fees back to local units of government and **deliver a tax cut to those harvesting trees by eliminating the severance and yield tax**. Additional changes include increasing the minimum acreage for enrollment from 10 to 20 acres, providing greater flexibility for owners when transferring ownership and splitting acreage, and more rule flexibility when a natural disaster strikes property enrolled in MFL. “Less red tape, more wood,” continued Tiffany. “This has been a mantra of mine over the last few years. It’s imperative to the economy of the Northwoods that we continue to be able to utilize our natural resources, and one of the most abundant is our forest products industry. We need to do all we can to ensure that Wisconsin mills continue to have a steady supply of Wisconsin timber. This bill helps achieve that.*

PIF note: It is unconscionable to witness the misinformation campaign against the Pelican project unfold. And nothing short of a travesty to witness an onslaught of lies, exaggerations and irrelevant statements tarnish the benefits of the Forest Legacy Program.

Wisconsin’s funding share to protect the Pelican Forest Phase 2 under a Forest Legacy easement is a mere \$71 an acre. Most of the funding is federal from the Land & Water Conservation Fund and a \$600,000 grant from the National Fish and Wildlife Foundation. Yet the Joint Committee on Finance rejected the Wisconsin share. Phase 1 was completed earlier without federal funds, only WI Knowles Nelson Stewardship funds. One has to wonder what changed.

On June 3, 2023, John Schwarzmann and Sheri Buller hosted a bird census outing on the Upper WI River Legacy Forest. Braving mosquitos the group started very early.

The following birds were identified in order:

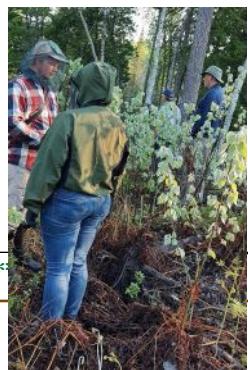
- Red-eyed vireo
- White throated sparrow
- Yellow rumped warbler
- Turkey
- Nashville warbler
- Hermit thrush
- Crow
- Loon
- Pine warbler
- Magnolia warbler
- Chestnut sided warbler
- Blue jay

- Rose breasted grosbeak
- Chipping sparrow
- Northern parula
- Winter wren
- Kingfisher
- Yellow bellied sapsucker
- Alder flycatcher
- Least flycatcher
- Common yellow throat
- Flicker
- Pileated woodpecker
- Mourning dove
- Golden crowned kinglet
- Red breasted nuthatch
- Swamp sparrow

This activity was within the Upper Wisconsin Wetland Pines, a designated Important Bird Area. The value of these social activities may be difficult to measure, but are

an important component of the community benefits from land conservation.
Below link is to a study the economic benefits of Forest Legacy [https://partnersinforestry.com/ Documents/fip-economiccontributionsreportfullresolution.pdf](https://partnersinforestry.com/Documents/fip-economiccontributionsreportfullresolution.pdf)

We believe the social, environmental and intrinsic values to be equally or more important.



Early morning bird census on the Upper Wisconsin Legacy Forest.
Photo: Bonnie Mosbrucker

PIF AND NWA WERE HONORED TO HOST TWO STOPS ON THE TOUR OF THE DUAL REGION STATE FORESTERS -FOREST LEGACY CONVENTION ON JUNE 7, 2023.



Lunch break June 7, 2023 under a tent on the Upper Wisconsin River Legacy Forest

Over 30 folks representing 24 states and the USFS visited the soon to be Headwaters Cedar Community Forest and the Upper WI River Legacy Forest on June 7, 2023. At the Legacy Forest we had things set up very nice back in the woods with a canopy tent, tables, porta potty etc. All told the group spent over 2 hours on our projects, with John Schwarzmann and Joe Hovel explaining the projects and expressing gratitude for the funding programs that make them possible.

We had the Northwoods Forest Conservation handbooks to share and explained our appreciation for UWCC making this book possible. The book received lots of praise and we explained that all content was available to all on the NWA website.

It was especially enjoyable to be with folks from around the Midwest and NE districts who deeply understand the value of land conservation, folks who appreciate the whole effort.

The Forest Legacy, and Community Forest Programs reap incredible benefits on communities. We were pleased to see Forest Legacy receive a great boost from the Inflation Reduction Act and long for a legislative champion to push increased funding for the Community Forest Program.



Suggested Hike by John Bates from Our Living Ancestors

Franklin and Butternut Lakes SNA

Location and Directions: Forest County, within the Chequamegon-Nicolet National Forest. T40N-R12E, Sections 15, 16, 17, 20, 21, 23, 26, 27, 28

Directions to the Franklin Lake Nature Trail: From Eagle River, drive east 8 miles on Hwy. 70 to Military Road (FR2178), turn right (south) and go 3 miles to Butternut Lake Road (FR 2181). Turn left and go east 5 miles to the nature trail parking lot on your right. The 1-mile long nature trail offers easy access to much of the old-growth.

Size: 1,548 acres designated in the State Natural Area.

Forest Type: Hemlock-hardwoods with occasional supercanopy white pine

Status: Owned by the CNNF and established as a State Natural Area in 2007.

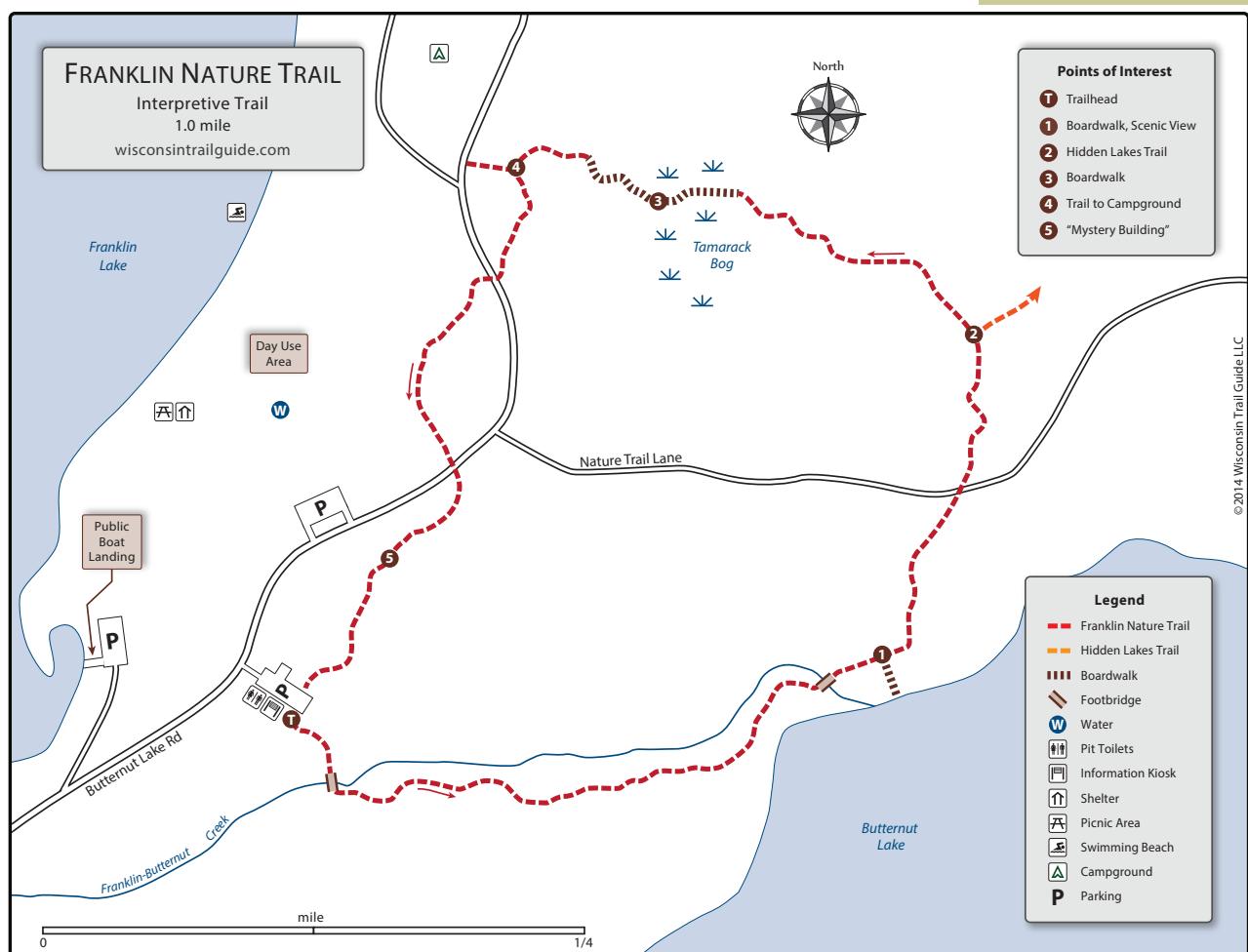
The Franklin-Butternut Lakes site contains a number of small undeveloped lakes and several old-growth hemlock-hardwood stands, including the 81-acre Bose Lake Hemlock-Hardwoods Research Natural Area, an old-growth, hemlock-sugar maple stand that is also listed as a National Natural Landmark. Mature hemlock, sugar maple, yellow birch, and basswood dominate the overall site along with some very large supercanopy white pines. Fallen trees, tip-up mounds, and many cradle knolls give old-growth character to the forest floor.

A blowdown occurred on the south end of the stand and the resulting canopy gaps are packed with sugar maple seedlings and saplings. Several interconnected stands of hemlock-dominated old-growth are on the isthmus between Franklin and Butternut Lakes – walk the Franklin Interpretive Trail to access a portion of them. Smaller stands of old-growth hemlock are found on the east side of Sunfish Lake, on the north side of Franklin Lake, and on a long esker-like ridge next to Two Dutchmen Lake.

The Franklin Lake Nature Trail is a segment of the 13-mile-long Hidden Lakes Trail, which encircles Butternut Lake and threads through a few of the 20 archaeological sites that are part of the Butternut-Franklin Lakes archaeological district. Paleo, Archaic, and Woodland Indians all once occupied portions of this area, the Paleo Indian occupation dating back to 9,000 B.C.

The archaeological sites include the Butternut Lake village site that was occupied around A.D. 700 to 1600 and extends almost a mile along the lake; a site on the isthmus used for processing and storing food; a fishing station on a rocky terrace overlooking Butternut Lake that was used seasonally from A.D. 500 to 1300; and the Butternut Lake inlet site that was first occupied around 1500 B.C., and where excavation revealed the foundation of the oldest dwelling thus far recorded in northern Wisconsin along with evidence of the domestication of dogs.

Seventeen of these 20 sites are located on Forest Service land, and all are designated as “special management areas.” A few interpretive signs describe the scientific and cultural values of this area.



**THE BOOK
CORNER**

Rod Sharka

For this issue of Partners News, may I recommend the following book for your reading pleasure:

Sprout Lands: Tending the Endless Gift of Trees
by William Bryant Logan

"Once upon a time, farmers knew how to make a living hedge and fed their flocks on tree-branch hay. Rural people knew how to prune hazel to foster abundance: both of edible nuts, and of straight, strong, flexible rods for bridges, walls, and baskets. Townspeople cut their beeches to make charcoal to fuel ironworks. Shipwrights shaped oaks to make hulls. No place could prosper without its inhabitants knowing how to cut their trees so that they would sprout again."

The author, William Bryant Logan, a practicing arborist who cares for the trees in New York City, takes the reader on a journey through the cultural history of the practice of coppice and pollard management of trees. I must admit, although I am vaguely familiar with the concept of coppice regeneration as it relates to aspen management and have only recently been introduced to the concept of pollarding (a practice still used today by arborists in urban settings), I had no idea that these two practices have been so extensively used throughout human history all over the world as primary management practices that have provided an endless source of wood products for millennia.

For the purpose of review, the idea is a simple one. When you break, burn, or cut low the trunks of almost any leafy tree or shrub, it will sprout again. New branches will emerge from the existing cambium in the remaining stump, either from dormant buds or from newly formed twigs.

As Logan writes: "A tree can't move. It has to live where it first came up. For 400 million years, in order to stay alive, trees and shrubs learned to respond actively to damage. A wind took down a branch. A vascular disease killed everything above the root system. A bigger tree fell on a smaller one. Each and all of these disasters did not necessarily end the tree's life, because it had learned how to sprout again."

For at least the last ten thousand years, people observed the tenacity of woody plants to survive and learned to use this tendency for their own advantage to produce an endless supply of wood that they needed to make fires, to weave fences, to build shelters, to make bridges, etc. Only in the late eighteenth century when coal began to be mined and saws became cheaper than axes did this millennial relationship to living wood begin to dwindle.

Although coppicing and pollarding have similar methods, their processes obtain a different and useful purpose. The term "coppice" refers to the sprouting of new growth from the stump or base of a cut tree trunk. Whereas the term "pollard" refers to a tree cut about 6 feet or more from the base to induce new sprouts or

branches to grow from the cut or pruned area. In many cultures around the world, it was common for people to herd domesticated animals such as cattle, sheep, goats, and pigs. If they were turned loose in a newly cut coppice woodland, the animals would readily graze on the new sprouts as they arose...much like deer do today in newly planted tree plantations. The solution was to practice pollarding instead which would put the new sprouts out of browsing reach of livestock. Genius!

These explanations were covered in much greater detail in the first couple of chapters. The remainder of Logan's book takes the reader on his travels to the four corners of the globe on every continent except Antarctica in search of remnant old growth pollard forests that provide evidence of this practice carried out by the different cultures of people in the past with a variety of woodland species, and how this practice benefitted their survival. The fascinating journey illustrates how the ancient art of pruning trees practiced for millennia has created the healthiest, most sustainable and most diverse woodlands that we have ever known.



A line of willow pollards near Sluis, Zeeland, Netherlands.

By Charles01 - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=6554322>

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

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 partnersinforestry@gmail.com or by mail:

Partners In Forestry
6063 Baker Lake Rd
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June 2023

Contact: [Chad Stewart](#) 517-284-4745

MICHIGAN DNR MOOSE SURVEY RESULTS SHOW POPULATION IN WESTERN UP STATISTICALLY UNCHANGED SINCE 2019

Some survey indicators mark dynamics to watch going forward

In survey results reported to the Michigan Natural Resources Commission in Roscommon today, the moose population estimate for the western Upper Peninsula was not statistically different from the last moose survey conducted in 2019.

The Michigan Department of Natural Resources has been surveying the western U.P.'s core moose population since 1997, typically every other winter. The 2023 survey marks the first survey completed since 2019 due to scheduling conflicts associated with the COVID-19 pandemic.

"The 2023 moose survey estimate was 426* individuals, which is not statistically different from the 2019 estimate of 509 individuals," said Tyler Petroelje, northern Michigan wildlife research specialist with the Michigan Department of Natural Resources in Marquette. "This continues the trend of plateauing abundance where population growth over the last 12 years is now less than 1%."

Aerial moose surveys are conducted over core moose habitat areas during winter to identify and tally bulls, cows and calves. This past winter's survey was conducted by the DNR during portions of January and February.

The western U.P. moose core range covers about 1,400 square miles in parts of Marquette, Baraga, and Iron counties. Moose were translocated there from Canada in two separate efforts in 1985 and 1987.

The remainder of the U.P. is not surveyed for moose but some pockets of higher quality habitat are occupied by lesser numbers of moose, as seen in the eastern U.P. region. Moose have been observed there since the 1950s.

During the 2023 winter survey, researchers tallied 212 individual moose, which was 20% fewer than the 266 moose observed on the 2019 survey. A point estimate indicated a 16% decline in moose abundance.

"Looking at demographic data, with respect to previous surveys, we observed a comparable – but low – cow-to-calf ratio and percentage of calf numbers," Petroelje said. "A potentially concerning observation is the lesser percentage of twins seen during this survey (9%) compared to the 10-year average of 15%."

Petroelje said fewer twins, in combination with a lesser bull-to-cow ratio could point to a recruitment issue, which is the number of individuals added to a population over a given time by either births or immigration.

Smoky Air—Anybody else been coughing, wheezing & sneezing

From WXPR radio

The Northwoods has experienced a lot of hazy skies in recent weeks. According to the Forest County Potawatomi air monitor in Crandon, between June 10th and 19th, there were only two days where the air quality stayed completely in the good category.

At times it fell to the unhealthy for everyone category.

Small particulates from the smoke get into our eyes and lungs.

At the same time, it's contributing to ground-level ozone or what's often referred to as smog.

Both of which are bad for our health.

“So, it's sort of a double whammy,” said Dr. Tracey Holloway. She's a professor at UW-Madison who has studied air pollution for more than 20 years. She also leads NASA's Health and Air Quality Applied Sciences team.

Holloway says in the short term, people often experience respiratory issues when it comes to this kind of air pollution, especially children, older adults, and people with underlying conditions like asthma and COPD.

The long-term effects can be harder to determine, but she says there's a direct correlation between poor air quality and shorter life expectancy.

“When you run the data of all the different reasons people could get sick, you see more people getting sick, more people dying on the days that have a lot of pollution in the air,” said Holloway.

To prevent sickness and death, Holloway recommends taking precautions on bad air quality days like staying inside, getting an air purifier for your home, or wearing an N95 mask if you're going to be outside.

In the long term, Holloway advocates for climate solutions.

Canada is having one of its worst fire seasons on record.

“No matter what metric you're looking at there's just more burning earlier in Canada and that is consistent with what we would expect. As the world is getting warmer, then the idea that land is just drier goes hand in hand with that expectation,” said Holloway.

A UN Climate Change report released earlier this year stated it's still possible to limit global warming.

But the world needs to drastically decrease carbon pollution as soon as possible to do so.

.....And a few take away thoughts after reading Paul Hetzler's similar feature in the Saturday Evening Post

In Canada cannabis is a legal crop, consumers will have to make peace with the idea of buying pre-smoked pot.—humorous as Paul is known to be

And a shocking true point we learned from the story--- Given that northern latitudes are heating much faster than lower and mid-latitudes, it's no surprise that the number of acres burned by Canadian wildfires annually is expected to double by 2100. We should not be surprised to have these widespread fires be the norm going forward.

*And a ray of hope--*In addition to stocking up on N95 masks and buying an indoor air filtration system, we can help clean the air in our neighborhoods by planting trees. We're aware that trees take carbon dioxide from the air and store it in trunks and branches, thus helping to mitigate climate change. While that's important, it's a slow process.

PIF note: *If public access for recreation, saving wildlife habitat or conserving undeveloped space is not enough for us to advocate for the Forest Legacy Program and land conservation in general, then the climate resiliency of large forest tracts should be. We all want clean air and we have a responsibility to future generations!*

TICK SEASON IS HERE

Paul Hetzler

Black flies can put a damper on summer fun, but a tick bite can change your life forever. Deer ticks (ID links provided below) are known to transmit Lyme disease, which is caused by any of three species of spirochete bacteria in the genus *Borrelia*. When a deer tick latches onto us for longer than 24 hours, it barfs a load of these fast-moving, corkscrew-shaped microbes into our bloodstream. The spirochetes, which have a particular craving for hearts, brains, and joints, begin to drill through our tissues in search of a nice place to settle down and reproduce.

As you might imagine, the results are unpleasant. What you might not expect is that early Lyme symptoms are often transient and sporadic. Even more surprising is the fact they can range tremendously from person to person. Lyme is

regularly misdiagnosed, harder to treat than we tend to assume, and can debilitate a person for years. In a few instances, effects can last a lifetime.

Fortunately, we know a lot more about Lyme now than we did just a few years ago. Since about 2016, an avalanche of new findings on tick-borne illness has crushed long-held beliefs and assumptions. If you have literature older than 2016, toss it. Tick literature, that is – save your other books.

Lyme and Rash Decisions

Early indicators of Lyme vary so much that it's imprudent to speak of "classic" signs. Yes, it often presents with a fever and joint aches, but the first clue something's wrong can be heart palpitations or profound confusion, things once believed to occur

only in late-stage Lyme.

Years ago, some doctors refused to consider Lyme disease as a possibility unless an expanding “bull’s-eye” rash was present, as the “bull’s eye” was once believed to be the hallmark of Lyme. As it turns out, that’s bull. It is true that Lyme frequently involves an area of inflamed skin, but fewer than 20 percent of Lyme cases present with a concentric bull’s-eye rash.

A large number of Lyme cases are misidentified as lupus, multiple sclerosis, fibromyalgia, or chronic fatigue. Not uncommonly, it’s diagnosed as depression or other psychiatric condition. In the elderly, it can easily be mistaken for sudden-onset dementia. Children under five and elders over seventy-five are the two age-classes that go the longest before being diagnosed with Lyme.

Testing: “Possibly Pregnant?”

The Western blot blood test gets a failing grade. It is tailored to a single 40-year-old strain of *Borrelia burgdorferi*, whereas there are over ten distinct genotypic and phenotypic variants of *B. burgdorferi* which are not detected easily, if at all. In addition, two closely related tick-borne microbes have recently been found. *B. miyamotoi* (2013) and *B. mayonii* (2016) also cause Lyme or so-called “Lyme variants.” Yet neither of these microbes show up in standard blood tests.

A little-known fact is that the Western blot does not give a “yes-no” result like a pregnancy test. First of all, labs get to choose how sensitive to make their tests. Some labs assay for as few as seven immunoglobulin bands, while others look at ten or twelve bands. And bizarrely, the results are purely subjective. One lab technician might count two bands as a “yes” while another may require three. Follow this logic: Two bands: “Stop whining – the test is negative.” Three bands: “Your test is positive – you poor thing!”

The Western blot has very low sensitivity and a high false-negative rate (*Clinical Infectious*

Diseases, Vol. 57, Issue 3, August 2013). According to lymedisease.org, “56% of patients with known Lyme disease tested negative using the two-tiered testing system recommended by the CDC. (Stricker, 2007)”

Most doctors in Lyme-prevalent areas use clinical presentation to diagnose, which is as it should be.

Solutions: Panic is Optional

I’m not saying to panic, but feel free. Those who work in the real world can’t avoid ticks, but exposed skin should be protected using products such as DEET (25-30%), Picaridin (20%), Oil of Lemon Eucalyptus (30%), or IR3535 (20%). Nootkatone, a component of Alaska yellow cedar, has been found effective, too.

On clothing and footwear, 0.5% permethrin is unsurpassed. Permethrin not only repels ticks; it kills them in seconds. As well, it stays effective through 20+ wash cycles, and you can even buy factory-treated work clothes.

Never follow a deer trail in the woods, and treat your pets regularly with a systemic anti-tick product so they don’t bring live ticks into the home. After showering in the evening, check for ticks. It was once thought ticks did not transmit Lyme until they had been attached for 36-48 hours, but experts now say we have just 24 hours, after which we’re at risk. Ticks prefer hidden places like armpits, groin, scalp/ hairline, backs of the knees, beltline and sock hems.

If you find an embedded tick, grasp it with tweezers as close to the skin as possible and pull up with steady pressure until it releases. Don’t use heat, petroleum jelly, or other home remedies. These get the tick to release, but they also force it to spew the diseased contents of its gut into your blood. Tick fragments normally remain in the skin afterward, which is not a problem. Apply a topical antibiotic – your body will expel the fragments.

If Lyme is detected early, most people recover with

a three-week antibiotic course. Stevia alcohol extract (not powder) has been shown to greatly boost the effectiveness of antibiotics.

But Lyme may refuse to vacate the premises in some cases. In a 2018 paper, the US National Institutes for Health stated “Several recent studies suggest that *B. burgdorferi* may persist after antibiotic therapy.” Much controversy surrounds the question of why symptoms last for months or years after an infection. I won’t wade into that morass,

except to say that everything we know about the issue would fit in a thimble.

Tick-ID links: <https://web.uri.edu/tickencounter/species/blacklegged-tick/>

<https://nysipm.cornell.edu/whats-bugging-you/ticks/what-do-ticks-look/>

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Paul Hetzler is a former Cornell Extension Educator.

WHITE PINES: COLOSSAL IN PLENTY OF WAYS

Paul Hetzler

PIF note: Ironically, Paul's first story in Partners News April 2016 was also about white pine. You can see that with a great photo of John Schwarzmann diminished by huge Forest County pine at

<https://partnersinfoforestry.com/Documents/News%20Letters/04-2016%20PIF%20Newsletter.pdf>

The eastern white pine (*Pinus strobus*) isn’t really a crop-bearing tree, but it has borne priceless “fruit” for American democracy. Physically as well as culturally massive, there are myriad accounts from the early 1800s of white pines over 200 feet tall being harvested. One credible report pegs a white pine at 247 feet, and unverified accounts have claimed that 300-foot-tall leviathans were cut back then. It’s a long-lived species, with 400 years considered a rough maximum. While working for a tree service in the early ‘90s, we removed a huge windthrown white pine at a camp on Upper Ausable Lake in the Adirondacks – my boss tallied 450 rings on it. And one 19th Century landowner said he counted 800 rings on a white pine stump.

The white pine is the official tree of Maine and Michigan, with the current U.S. champion standing at 180 feet, 10 inches in Cook Forest State Park in Pennsylvania. Sadly, one of the tallest specimens in NYS, which I visited back in 1990, toppled in 2021. At 160 feet, 10 inches, it was in a stand of old-growth habitat near Paul Smith’s College. In today’s second- and third-growth forests, the average mature white pine is often between 100 and 140 feet tall, with diameters of 30-40 inches.

In terms of identification, it’s the only native pine out East that bears needles in bundles, or fascicles, of five: one for each letter in W-H-I-T-E. (Just to be clear, the letters are not actually written on the needles.) White pine branches tend to swoop gracefully upwards toward their ends, and the tree produces attractive, 8 to 16-inch-long cones with resin-tipped scales. White pine is renowned for its wide and clear (knot-free), straw-colored lumber used for flooring, paneling, and sheathing, as well as for structural members. Much of

New England was built on white pine, and in some old homes, original pine floorboards 20+ inches wide can still be found. (note from Joe: In my building career I much preferred white pine for a great number of reasons. See more on its properties in *Celebrating Local Woods*, one of the Northwoods Forest Conservation handbooks).

As impressive as its lumber is, white pine's most precious gifts are intangible. In his book *Forgotten Founders*, Bruce E. Johansen documents the link between the modern Western understanding of democracy, and the Haudenosaunee (Iroquois) Confederacy, whose symbol is the white pine.

According to Haudenosaunee oral history, sometime between 1200 and 1400 years ago in what's now upper NY State, as well as parts of Ohio, Pennsylvania, and Ontario, five nation-states were convinced by a prophet known as the Peacemaker (Dekanawidah) that they'd all benefit by joining in a federation. (Some non-Native historians have placed this event as late as 1660, despite the fact that's nearly 50 years after a seminal Haudenosaunee treaty with the Dutch government.)

The Peacemaker held that the white pine, with its five needles joined at the base, would be an apt symbol for the unique democratic federal structure he proposed. At the time, it comprised five nations: the Seneca (Onödowa'ga:'), Oneida (Onyota'a:ka), Onondaga (Onöñda'gega'), Cayuga (Gayogohó:no), and Mohawk (Kanienke'haka).

Each member nation manages its own internal affairs through elected officials, but matters involving one or more nations are resolved at the federal level. The Haudenosaunee federal government is composed of fifty elected chiefs who sit in two legislative houses; the Elder Brothers and Younger Brothers. There is a single elected Executor or Grand Chief (Adodarhoh), who among other things acts as a tie-breaker in the event the legislative bodies disagree after deliberating a proposal.

These and other tenets of Haudenosaunee governance are codified in The Great Law of Peace, or Kaianere'kó:wa. It is an oral constitution, and traditional chiefs are expected to know it by heart. I had the good fortune to have attended the first recitation of The Great Law ever done in the English language. It was in 1992 on Six Nations Grand River Territory near Brantford, Ontario, and took nine days for Oneida Snipe Clan chief Jake Thomas to recite it.

Though ravaged by colonization, The Great Law is fiercely embraced by a segment of the population today. Only women can vote under this structure, a fact which confounded European men, and was one reason that colonizers worked hard to subvert it and install more pliable, male-only councils. Haudenosaunee women, primarily the elders or clan mothers, still have the sole power to depose a chief who is not acting in the public's best interest. The clan mothers also can veto any law they deem short-sighted, in this sense collectively acting as a further check against abuse of power.

The white pine is often called "the tree of peace" by the Haudenosaunee. The Peacemaker told the people to bury their weapons of war forever beneath its roots, and oral history notes that hundreds of years followed the formation of the Confederacy when no blood was shed in war. One of the articles of The Great

Law allows other nations to apply for membership by tracing the white roots of peace, as they are termed, back to their source.

In 1722, a sixth nation, the Tuscarora (Skarù:re⁷), did just that when they were admitted to the Confederacy after being driven from their homeland in present-day North Carolina. The structure of The Great Law was not altered, however, and Tuscarora leaders vote by proxy through the Oneida.

For the Haudenosaunee, the white pine remains an enduring representation of their culture. As described in The Great Law, a bald eagle sits at its top, a bundle of five arrows in its talons denoting strength in unity. The purpose of the sharp-sighted bird atop the pine is to watch for perils that could destabilize the government – namely greed and selfishness, as Chief Thomas explained in 1992.

As Donald A. Grinde lays out in his book *Exemplar of Liberty: Native America and the Evolution of Democracy*, key Colonial figures such as Thomas Jefferson, John Adams, James Madison, and especially Benjamin Franklin, deeply admired The Great Law. As a result, Haudenosaunee chiefs were invited to address the Continental Congress and act as advisers as America's "Founding Fathers" were drafting the Constitution. In other words, the US Constitution is directly and deliberately based on The Great Law, the symbol of which is the white pine.

Among the earliest US flags were a series of Pine Tree flags. The white pine that is depicted on the state seal of Vermont has 13 branches, a nod to the importance of The Great Law in the formation of the USA. We took the bald eagle from its perch at the white pine's summit, and adopted as America's official bird – the eagle appears on most US currency, in its talons a bundle of arrows symbolizing *E Pluribus Unum*.

North American women's-rights pioneers of the late 1800s, especially Matilda Jocelyn Gage, credit Haudenosaunee women as the inspiration for demanding equal treatment. In her book *Women, Church and State*, Gage makes this connection explicitly. It is no accident that the Women's Rights National Historical Park is in Seneca Falls, NY – virtually in the center of Haudenosaunee territory.

Thus, the white pine is fundamentally linked to contemporary women's rights, as well as to modern democracy. Some pretty amazing "crops" from this conifer, I'd say.

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Kudos to white pine and to Paul Hetzler

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