Partners News

August 2018

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

Partners in Forestry
Landowner Cooperative

6063 Baker Lake Road
Conover, WI 54519

partnersinforestry@gmail.com

715-479-8528

PIF's Website:
www.partnersinforestry.com

Have you paid your PIF dues?

Have you checked out PIF's website? www.partnersinforestry.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.

Inside this issue:

That was a really impressive and heart-felt ceremony. It was great to hear you reflect on the long and winding road to finally get to this point, and also to feel the collective appreciation for what has been accomplished. Thanks again, and I hope you enjoy the memory of today for a long long time.
Pilgrim River neighbor

Pilgrim River Forest Project

Located in the heart of the Keweenaw Peninsula, the brook trout-filled Pilgrim River winds through acres of prime forestland, unique land formations, recreational trails, and habitat for an array of wildlife species and migratory birds, which all comprise the incomparable Pilgrim River Forest, now protected for the enjoyment of current and future generations.

The culmination of the Pilgrim River Forest project has resulted in the establishment of a working forest conservation easement on this spectacular property by the Department of Natural Resources, on behalf of the citizens of the state of Michigan. The project ensures the conservation and sustainable future management of one of Michigan's natural treasures.

The 1,295 acres of forest land in Houghton County includes public recreational opportunities and protection of:

- Approximately 3.5 miles of Pilgrim River corridor, a native brook trout fishery.
- Unfragmented habitat critical for far-ranging species such as black bear, fisher, pine marten, and white-tailed deer, as well as for migratory birds.
- Public outdoor recreational opportunities for hunting, fishing, trapping, bird watching, wildlife viewing, hiking, snowshoeing, and cross-country skiing.
- A complement to the adjacent Pilgrim Community Forest, established through the Community Forest and Open Space Program.
- The continued sustainable timber management practices currently used on the property.

Closing Ceremony
July 24, 2018
11:00 a.m.

The completion of the Pilgrim River Forest project ensures the protection of wildlife habitat, sustainable forest management and opportunities for public outdoor recreation. The citizens of the state of Michigan and visitors to this state will now forever have the opportunity to hunt, fish, hike and enjoy this beautiful piece of land.

Speakers

Keith Creagh
Director
Michigan Department of Natural Resources

Evan McDonald
Executive Director
Keweenaw Land Trust

Neal Bungard
Natural Resource Program Leader
U.S. Forest Service

Joe Hovel
Pilgrim River Forest Landowner

John Ollila
Pilgrim River Forest Landowner

Ceremonial Deed Signing
Representatives from the Michigan Department of Natural Resources, Keweenaw Land Trust, and Pilgrim River Forest

Master of Ceremonies
Stacy Welling Haughey
DNR Upper Peninsula Regional Coordinator

The below, with a couple edits, was from the Daily Mining Gazette by Kali Katerberg

Ceremonial Deed signed

LOCAL NEWS
JUL 25, 2018

Kali Katerberg/Daily Mining Gazette: Smiles after the deed is signed. From left to right: Landowner Joe Hovel, Landowner John Ollila, Director of the Michigan Department of Natural Resources Keith Creagh and Keweenaw Land Trust Executive Director Evan McDonald.

HOUGHTON COUNTY — *"Listen to the wind in the trees, the birds in the forest, the ripples on the water. It doesn't get any better than this,"* said Michigan Department of Natural Resources (DNR) Director Keith Creagh.

He addressed a group of around 65 who were gathered within the Pilgrim River Forest Tuesday to witness the ceremonial signing of the deed establishing a working forest conservation easement for

the 1300 acres. The forest includes close to 3.5 miles of the Pilgrim River corridor, key for brook trout.

"I just need to say thanks, this is a great example of a public-private partnership," Creagh said.

Years in the making, the easement will allow continued public access for activities like hunting, fishing, hiking, bird watching and cross-country skiing generations into the future. The proximity to the city of Houghton and its use for future generations are key for the parties who worked on the project.

The land will continue to be managed sustainably for timber by the Hovel family who have a long history of pushing for similar easements and allowing public access on their lands.

"I'm sometimes asked why I get so deeply involved in this stuff," said Joe Hovel. *"I often have a thought that someday we are going to be judged by how we treat our lands,"* he said.

The family was alerted to the property in 2007 and the concerns of development and fragmentation of the land. With their joint focus on sustainable logging and preserving public access indefinitely, the Hovels became involved.

"Think of the social fabric we are protecting right here in the Pilgrim Valley. 50 years from now a neighbor will be able to come in here, walk their dog, hunt with their kids, fish trout…because of the hard work we have accomplished," Hovel said.

The other landowner on site was John Ollila. His earlier 38-acre contribution is called the Sally M. Ollila Memorial Woodland after his mother. Along with his recent easement of 202 acres, a contiguous land protection of over 1600 acres is now showcased in the Pilgrim valley.

"For a long time I've been on a quest to find an appropriate conservatory and so here we are, I am at peace and very happy," Ollila said.

The land was donated in memory of his mother who inspired his own love of the outdoors and was an early conservationist. She, like Ollila, grew up on the land.
Land conservation is difficult to take root in the Copper Country, Ollila has found, with so much legacy mining land that is publicly accessible, that might not always be so if it changed hands.

"What happens when the first new internet star chooses to buy everything between Painesdale and Mass and gate it and says 'it's mine.' Conservation is harder to take root here because we have all this land we can use though it's not ours," he said.

Ollila's portion of the land will not permit hunting and biking and he is working towards getting more public access trails.

The Pilgrim River Forest can be accessed from Boundary Road and another more difficult trail-head where Pilgrim and Paradise Road meet. The trail-head begins across Paradise Road behind a guardrail.

PILGRIM RIVER CEREMONY CELEBRATES FOREST LEGACY & THE LAND AND WATER CONSERVATION FUND

It was a perfect summer day as 65 people gathered at a Pilgrim River overlook to celebrate and witness the deed signing of 1300 acres, known as the Pilgrim River Forest Legacy Project, now protected and established as a working forest conservation easement. The completion of the Project was a collaborative effort of the Michigan Department of Natural Resources, the Keweenaw Land Trust, the Forest Legacy and Community Forest Program and landowners Mary and Joe Hovel and John Ollila. An outpouring of goodwill and appreciation from the community and other areas of the Northwoods emphasizes the importance of these essential federal programs that ensure conservation and sustainable future management of Michigan's natural resource treasures. One LWCF advocate from the lower peninsula drove 423 miles to make this event and "would not have missed it for the world."

Speakers at the ceremony were the director of MDNR Keith Creagh, Evan McDonald of the Keweenaw Land Trust speaking on behalf of the array of conservation partners, Neal Bungard of the USFS State and Private Forestry and landowners Joe Hovel and John Ollila.
A community genuinely thankful for the benefits of this conservation success story expressed gratitude to the USFS, the MDNR, all of the conservation partners, and the landowners for the effort they had devoted to this project.

"I just need to say thanks. This is a great example of a public-private partnership where we have the land owner, the federal government, state government and local governmental units coalescing around conservation easements. This recent transaction actually protects about 1,300 acres, about 3.5 miles of the Pilgrim River," said Michigan Department of Natural Resources Director Keith Creagh.

Coupled with the Community Forest acquisition in 2014, the Pilgrim River Watershed project has ensured protection of over 1,600 acres only a couple miles from Houghton and even closer to Michigan Tech University.

Partners in Forestry is proud to have been involved in this great effort. Along with Northwoods Alliance, Copper Country Chapter of Trout Unlimited, Keweenaw Land Trust, Copper Country Audubon, Keweenaw Trails Alliance and Houghton-Keweenaw Conservation District which composed the Pilgrim River Watershed project. The project was also supported by the Charter Township of Portage and a wide collaboration of individuals.

"For a long time I've been on a quest to find an appropriate conservatory and so here we are, I am at peace and very happy," Ollila said.

"It was an incredible and very warm ceremony. I have never received so many thank you, hugs and handshakes in a single day." Joe Hovel

At an overlook on the Pilgrim River over 65 people gathered to celebrate Forest Legacy and LWCF. From left: with back to camera Dawn Levey, LWCF Coalition; Evan McDonald, Director Keweenaw Land Trust; MDNR Director Keith Creagh; USFS Forest Legacy coordinator Neal Bungard; Master of Ceremony Stacy Welling Haughey; Forest Legacy coordinator for MDNR Kerry Wieber; Joe Hovel. After the ceremony about 20 folks, including as DNR Director Creagh and Neal Bungard as well as MDNR Forester Gary Willis hiked a 2 plus mile overlook of the Pilgrim River. The Pilgrim River Watershed project began officially in 2009, and has now protected over 1600 acres just south of Houghton.

Pilgrim Valley resident John Ollila is all smiles about the Forest Legacy easement. Forest Legacy is funded by the Land and Water Conservation Fund. LWCF is set to expire if we do not act!

Photos on this page courtesy of Keweenaw Land Trust

LWCF

The smiles at the Pilgrim River ceremony on July 24 were infectious, the appreciation for this conservation success was overwhelming. This project could not have been successful without The Land and Water Conservation Fund, as LWCF funds the Forest Legacy program. We have talked about LWCF in these pages for years. Read up on this landmark federal program.
https://www.lwcfcoalition.com/home/

This program is set to expire September 30 of this year after 53 years of success. Please contact your federal representatives. This is an election year. Learn where your candidate stands on this important program.

- The $214 million that DOI spent on land acquisition in 2010 created an estimated $442 million in economic activity-more than doubling the return on investment-- and about 3,000 jobs.

- The LWCF state grants program further supports America's state park system, which contributes $20 billion to local and state economies.

The Power of The Land and Water Conservation Fund

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Forests for Life

Forest conservation is the practice of planning and maintaining forested areas for the benefit and sustainability of future generations. Forest conservation involves the upkeep of the natural resources within a forest that are beneficial to both humans and the ecosystem.

BUT WHY?

One in five breaths
Trees convert carbon dioxide into oxygen. More than 20 percent of the world's breathable oxygen is produced in the Amazon rainforest alone. (Lets do our part locally)

Four people, every year
In 50 years, a tree can release about 6,000 pounds of breathable oxygen, enough for about 4 people per year.

Living filters
Forests next to rivers and streams act as "living filters" by absorbing sediments and storing and transforming excess nutrients and pollutants — reducing nitrogen concentration by up to 90 percent and phosphorous by as much as 50 percent.

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Deer Flies Away

Paul Hetzler
Cornell Extension

Toothaches, difficult break-ups, and traffic accidents. With some things in life, if you have one, you have one too many. This applies to deer flies, those hard-biting pests with a knack for moving in at the instant your hands are full. And the same goes for their beefier cousin the horse fly.

Deer and horse flies are in the family Tabanidae, a group of aquatic insects comprising over 4,000 species worldwide. Fortunately, we “only” have around 100 species of deer flies and 200 of horse flies in the region.

It is the female deer and horse flies which slash you with their scissors-like mouthparts and sop up your life-blood to mature their ovaries. After a nice bloody Mary, or Tom or whoever, they will lay 100 to 800 eggs at the edge of a pond, marsh, or temporary mud hole. The larvae are easily found (should you want to) in ponds and marshes in the near-shore ooze. Mind the leeches.

While it seems they must breed nonstop, deer and horse flies take a full year to complete their life cycle. The larvae mostly eat small invertebrates, though some species of very large horse flies reportedly eat frogs and toads. I never want to meet one of those full-grown. All types of black flies emerge in spring together, but then conveniently die off by summer. But various deer and horse fly species emerge throughout the season, making for a summer full of them.

The nature of an irritant is that its presence is readily noticed, but its absence often doesn’t register. Because last year was very wet, these guys had loads of watery real estate in which to lay eggs, and we are paying the price for all their success. Next year, though, there will be far fewer of these bloodthirsty flies because this year has been so dry. However, it is a safe bet that very few people will notice.

In a dry year, many traditionally wet places shrink in size or dry up completely. Larvae in the family Tabanidae need water to survive, and as ponds shrink and vernal pools dry up, the larvae shrivel and die. The early deer flies which have already laid their eggs this season will not be passing on any genes. Turns out “survival of the fittest” depends on the weather.

Their biology is such that chemical control is impossible, and DEET and other repellants are not very effective against them, so we need other tools. Wearing a hat will help, and you can even get ones with face nets. You can go further by deploying sticky patches, sold at sporting-goods outlets, on your hat. Deer flies seem to be attracted to the color blue, so be advised.

Songbirds such as flycatchers and swallows depend on deer and horse flies to fatten themselves up before fall migration. Other aquatic insects like dragonflies eat loads of these flies, and even as underwater nymphs (immature forms), they eat deer and horse fly larvae. Sure wish they would eat more...

Here’s to a great remainder of this summer, and one a bit less fraught with deer and horse flies next year.

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It is fortunate we have not experienced bad drought this summer, but this story gives a silver lining to dry summer months.

Dry Weather May Mean Less Lyme Disease by Dave Mance

Over the past few decades, black-legged tick populations have grown relentlessly. These are the ticks that carry Lyme disease, and so what was once a novelty illness has become a rite of passage for many. It's probably safe to say that by now everyone reading this knows someone who's had the disease, if they haven't had it themselves.

But some years are worse than others when it comes to Lyme disease infection rates, so the obvious question is: what causes this? Part of the answer involves the number of deer and small mammals around. There's been elegant science done that establishes a neat connection between Lyme disease rates and good acorn years. The oaks produce a good crop, which causes a spike in the mouse and chipmunk populations the next year, and then a surge in human Lyme disease cases a year after that.

Weather also plays a role, but maybe not in the way you might think.
Around here there's a lot of speculation every winter that maybe the cold will knock back the ticks. Unfortunately, any hope placed in this idea is probably misplaced. Remember that deep cold we had in late December this year, when much of the region dipped well below zero at night and didn't get above freezing for two weeks? During this cold snap researchers were studying tick mortality in Maine, and noted that temperatures below the snow were pretty much a constant 30 degrees, well above the 14 degree threshold below which ticks start to die.
Even in areas where ticks had no protection from leaves or snow, they were surviving at rates between 30 and 40 percent.

Dry early summer weather, though, like the kind the north east is having this year, does affect ticks, or at least the rate at which humans contract Lyme disease.

"Most tick species show reduced host seeking behavior when it's dry," said James Burtis, a postdoctoral associate at Cornell University who's studying the subject. "Black-legged ticks are particularly sensitive to desiccation, likely in part due to their smaller size and their adaptation to moist forest environments."

Ticks can seem supernaturally tough. Pinch one with all your strength between the fleshy parts of your fingers and nothing happens. Drop one in a glass of water and it'll just sit on the bottom wriggling

Lyme disease is now present in all 50 states and at least half the counties in the United States.

instead of drowning, waiting for you to toss the water outside so it can walk away. But its Achilles heel is desiccation – a fancy word for drying out. They need moisture, which is why you find them in the moist leaf litter at the edge of the yard and not in the drier, mown parts.
Expose a tick nymph to air with 40 percent humidity and deprive it of moisture for 24 hours and it will likely die.

In early summer, the tiny nymphs – about the size of a poppy seed – have to climb up a stem of grass or brush and then just hang there waiting for you or something else warm blooded to brush into them so they can eat. The wind dries them out. The sun dries them out. As a result, in hot, dry years, they need to climb up and down the vegetation more often to rehydrate. There's evidence they don't climb as high, since the farther they get from the moist duff layer, the more exposed they are; this presumably would make them more likely to be stepped on than brushed into. They may also do more questing at night when there's more moisture, which further limits human exposure.

Some of the ticks might be dying in the drought periods. "There is some evidence that ticks burn through their energy reserves when it is hot & dry, said Burtis, "but those are just preliminary data." It's best not to make too much of this, though. In one long-term study carried out at the Cary Institute for Ecosystem Studies, researchers noted that while they collected fewer tick nymphs by "flagging" (dragging corduroy cloth through the brush) in dry years, the tick counts on rodents they trapped didn't show a big variation between wet and dry years, which seems to indicate that many of the tick nymphs are still getting their blood meal, it's just coming from a mouse and not a human.

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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 partnersinforestry@gmail.com or by mail:

Partners In Forestry
6063 Baker Lake Rd
Conover, WI 54519

CONSERVATION UPDATES FROM OUR PARTNERS AT

NORTHWOOD ALLIANCE Inc.

Wildcat Falls project: On June 29 an application for the USFS Community Forest and Open Space Conservation program was submitted to the Michigan State Forester. By mid July it had been forwarded to the USFS. Following the Pilgrim River dedication ceremony on July 24, board members Casey Clark and Mark Hovel walked the project lands with Neal Bungard, the USFS official representing the Community Forest Program. Casey who is Conservation Coordinator and project communications director Carol Mason Sherrill are currently researching funding opportunities from land conservation foundations. The local fundraising has been well under way and must maintain momentum. In a best case scenario we feel at least 25% of the required funds will need to be raised locally. If you are able to contribute to this worthy project, please do so. If you have any ideas to help facilitate this project, or are able to help in any other way, please contact us. A Wildcat Falls Community Forest is within our grasp!

Congratulations Nancy: Northwood Alliance secretary Nancy Warren was recently awarded the Petoskey Prize for Environmental Leadership by the Michigan Environmental Council. Director of MEC Chris Kolb called Nancy "The Epitome of a grass roots leader".
Please use this link for the full story on Nancy's award and tenacious activism.
https://www.environmentalcouncil.org/petoskey_prize_winner_nancy_warren
Nancy has been deeply involved in advocacy for the LWCF, directs Wolf-watchers, serves on the UPEC board and much more.

Board updates: We welcome Rick Plonsky to the board of directors. Rick is a recently retired commercial airline pilot. He lives near Lake Tomahawk with his wife Ann and their dogs. Rick is an accomplished photographer, is very interested in the northern forests with sustainable management and he is passionate about maintaining clean water resources in the Northwoods.

We also welcome Carol Mason Sherrill as a board member and Communications Director. Carol resides near Sylvania Wilderness with her husband David, is passionate about public lands and conservation on private lands, has been a volunteer for Friends of Sylvania. Carol can be reached at carolmasonsherrill@yahoo.com She is most happy to discuss Wildcat Falls or any of the issues we are involved in.

Protect the Willow: With the concern over groundwater contamination with the easing of the sulfide mining moratorium in Wisconsin, Rick Plonsky is working with a group concerned about pollution of the Willow River and flowage. The early history of this group addressed these concerns years ago. Rick can be reached at rdplonsky@plonsky.net

Educational Series: We are proud to be a partner with PIF and UWCC in the series Appreciate Our Common Lands; A Hands on Celebration of the Benefits of Forest Land Conservation.
www.northwoodalliance.org nwa@nnex.net

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Shady Business

Paul Hetzler, Cornell Extension

Sometimes it's good to have a few burly associates for protection, because when the heat's on and you need to lie low for a while, you can always turn to those shady characters for relief. You know the ones I mean—those big guys with solid builds that no one pushes around. Yeah, the trees. They're cool.

On a scorching bright day, any shade is welcome. If you're lucky enough to have mature trees around, not only can you get a break from the sun, but the air temperature will be degrees cooler than out in the open; natural air conditioning.

Speaking of which, if you use an air conditioner, having shade trees on the south and west sides of your home will reduce your cooling costs by a minimum of thirty, and possibly as much as fifty, percent. It's like getting Hydro rebate. Deciduous trees are ideal because they shield you in summer but allow sunlight through in winter.

On those blistering summer days when you think it's too hot to work outside, you're not alone— trees share your outlook. Photosynthesis, that remarkable process that turns carbon dioxide and sunlight into sugar (thereby keeping the trees alive) and oxygen (thereby helping keep us alive), does not work well above thirty degrees. All that solar energy going to waste!

This is why a tree's inner canopy is essential. Far from being unlucky residents of a less-desirable neighborhood, leaves shaded by upper branches are key players in a tree's survival, as they're the only ones on the job when it's too hot for their upstairs neighbors to work. So it's best not to get overly enthusiastic with pruning. Trees don't want their inner canopy "cleaned out."

Hopefully you're drinking plenty of water in the summer heat. It might surprise you that trees can run short of water. While we tend to think tree roots dive deep in search of a cool drink, 90% of tree roots are in the top 25 cm. of soil, and 98% are in the top 46 centimetres.

Species such as birch, ironwood and hemlock are especially prone to water stress, but others are renowned for their drought-tolerance. Bur oak (*Quercus macrocarpa*) is a stately, long-lived (800+ years) native tree which oddly enough tolerates intermittent flooding as well. Black maple (*Acer nigrum*) is very similar to sugar maple, but with slightly fuzzy leaves that are better at conserving water. Hackberry (*Celtis occidentalis*) is another native tree that can withstand prolonged water shortages. However, even these tough species have their limits.

Lawns recover from severe water shortage in a matter of weeks. Trees, however, take years. Drought stress weakens a tree, making it more vulnerable to diseases and insects. While many shady characters don't take well to a good soaking, your tree will appreciate a thorough weekly drench. Actually, its survival may depend on it.

Wishing a healthy, hydrated summer on the shady side of town for you and your associates.

EVENTS in series APPRECIATE OUR COMMON LANDS
UPPER WISCONSIN RIVER LEGACY FOREST

By C. S. Mason

It was a warm summer morning on July 9 when over 20 people gathered at the Upper Wisconsin River Legacy Forest near Land O Lakes. The event was led by Quita Sheehan, Vilas County Conservation Specialist; Mike Pezinski , retired USFS Wildlife Biologist; and John Gillian, forestry team leader out of Rhinelander for WDNR.

The tour started with a drive through the jack pine forest to its eastern edge where we all disembarked from the trucks to hike through the forest over soft mosses and native plants covering the forest floor. The hike led us to a quiet, secret bog pond where Quita Sheehan shared many of the ponds' native plants including pitcher plants, bladderwort, and carnivorous insect eating plants and explained how these bog ecosystems are so amazing and unique. The pond is dissected by the boundary with the Nicolet National Forest and surrounded by black spruce. Mike gave some fascinating information about the birds that inhabit this area and in particular, the Kirtland warbler, which can only survive in young jack pine forests. We were all amazed by the diversity and abundance of plants, birds, trees, and amphibians. Walking through the sweet braid brought up such a sweet fragrance and we were all reminded how wonderful it is to have this forest preserved and protected.

Following the fascinating pond visit, we trekked to the old camp area near the Wisconsin River, where the group took a welcome break from the heat and humidity of the day with delicious and welcome refreshments provided by Mary Hovel.

We finished the event in the area recently planted in 2017, where we addressed reforestation, young forests for wildlife, and the vast array of plants that exist on low nutrient soil types. John Gillian shared specifics about this planting and the process of getting 40 acres planted with seedlings. The jack pine forest is species specific habitat for the threatened spruce grouse, which seeks younger to middle-age jack pine, white spruce, and fir nearby to Black Spruce swamps. We all give a big thank you to the leaders of these events for their support of our educational series, as well as to the UW Center for Cooperatives..

This event was one of several in a series hosted by PIF along with the Northwoods Alliance, Inc., and with help from the University of Wisconsin Center for Cooperatives.

The title of this series is “Appreciate our Common Lands, a hands-on celebration of the benefits of forest land conservation”.

The next event is a paddle and hike to the Tenderfoot Reserve led by Rod Sharka and special guests. Please follow the PIF website for details on this series and support your co-op by attending an event, as they are important to our well-being and mission.

Watch for details for a fall event which will include wildlife and forestry on the Northern Highland State Forest.

Visit Guido Rahr Sr. Tenderfoot Forest Reserve

Partners in Forestry, in cooperation with the Northwood Alliance and the University of Wisconsin Center for Cooperatives, will be leading a paddle & hike trip to the TNC Tenderfoot Forest Reserve on August 25, 2018. This trip is one of a continuing series is titled *Appreciate Our Common Lands: A Hands on Celebration of the Benefits of Forest Land Conservation.*

The TNC owned, *Guido Rahr Sr. Tenderfoot Forest Reserve* is a 971 acre tract of minimally disturbed forest land which preserves nearly four miles of undeveloped shoreline along Tenderfoot, Roach, and Mirror lakes, and contains over 500 acres of old-growth hemlock, hardwood forest. Leaders of this trip may include former USFS Chief Michael Dombeck, TNC director of conservation Matt Dallman, and well known local naturalist and author John Bates.

Since the only public access to this reserve is by water, we will paddle via canoe or kayak (3 miles) to the trailhead on Tenderfoot Lake in north-central Vilas Co. (Some paddling experience recommended.) Then hike approx. 2 miles through the heart of the old growth and past Mirror Lake. We will discuss the characteristics and values of old growth forests, and the importance of preserving these remnants that escaped the great logging era.

Items to bring: Canoe or kayak*, paddles, wearable PFD (required), a packable lunch and snacks, water, insect repellant, sunscreen, camera, rain gear.

Trip limited to 20 participants. Reservations required. To reserve your spot or for more information, contact Joe Hovel, 715-479-8528 (logcabin@nnex.net) or Rod Sharka, 715-547-6493 (resharka@gmail.com). *We would prefer that participants bring their own boat, but if you do not have one, call anyway. Perhaps we can pair you up with someone who needs a partner.

Walking on Air

Paul Hetzler, Cornell Extension

There's the Silk Road, the Yellow Brick Road, and the road to you-know-where, which they say is paved with good intentions. We have the Appalachian Trail, also known as the Road to Divorce when people claim to be off hiking it but are in fact busy with extramarital affairs. But I digress. As usual. Our great country was built on highways, byways, boulevards, terraces, turnpikes, tow-paths, and bike paths. Now seems the right time to blaze a new kind of road.

Thanks to Seattle-based artist and environmentalist Sarah Bergmann, today we have the Pollinator Pathway. In 2008, Ms. Bergmann initiated what has been described as a "participatory art, design and ecology social sculpture" which she termed the Pollinator Pathway, a linear habitat to help pollinator insects find food as they wend their way through cities and other challenging landscapes. Since that time, the concept has spread to many parts of the US, and even other countries.

Pathways can be as simple as a line of flowering plants between one backyard and another, or as grand as a "flower belt" that connects green spaces across a major urban city. The website http://www.pollinatorpathway.com/criteria/ has tools and resources, and lists major criteria such as the need to collaborate with various groups and agencies, use native plants primarily, and have a long-term maintenance plan. Like so many great ideas, the pollinator pathway notion has "gone wild," and is being adopted by folks who are not always familiar with Ms. Bergmann's work.

The idea is to establish plants of many colors and shapes which flower at all times of the growing season and at varying heights, so that the greatest variety of pollinating insects can take advantage of them. Presumably, non-insect pollinators are not part of these endeavors. Lemurs, lizards, bats, monkeys, opossums, and about 50 other vertebrate species also pollinate flowers, but attracting herds of such to wander about city neighborhoods might not be every urban planner's dream.

Although the honeybee makes a great pollinator poster-child, in the larger scheme of things it contributes very little to the production of domestic and wild foods. In a healthy environment, and even in many compromised ones, it is the native moths, butterflies, wasps, bees, flies, beetles and other insects which do nearly all pollinating of wild and domestic crops. Certainly in some regions the impact of honeybees on pollination is negligible.

Not to say we shouldn't still raise honeybees and be concerned about their health—honey and other bee products are important crops—but we should have a more accurate picture of who does our pollinating. Honeybees are essential in places where intensive agriculture has removed plants that native insects would normally depend upon, such as in California's almond groves and even in some fruit-growing regions around the Great Lakes.

The reason pollinators are in so much danger that they require safe trails through cities and towns is complex, but has much to do with pesticides. A class of insecticides called neonicotinoids, or neonics for short, have long been implicated in pollinator decline. Used in everything from lawn-

grub control to soybean production, these chemicals render an entire plant toxic, including its pollen. Bad news for insect pests, and also for bees and butterflies. In April 2018, the European Union banned three of the most popular neonics in order to protect bees.

And fungicides, once believed safe for bees, have recently been named as a suspect in pollinator decline. In a November 2017 report, a Cornell-led team of researchers from across the Northeast concluded that routine use of fungicides in agriculture weakens bees to the point they often succumb to bad weather or common diseases, factors which normally would not prove fatal. Today, 49 species of native bees are considered at risk, with bumblebees especially hard-hit.

If there was a pollinator prize, it would likely go to our fuzzy native bumblebee species. Hairiness is one reason bumblebees are more efficient pollinators than, say, yellow jackets, which by the way contribute a fair bit to pollination. Another thing is that bumblers can operate at much colder temperatures than other insects—whether their wonderful fur coat helps with that I do not know. In addition, their "bumble" is part of their beauty. It turns out they vibrate the air at a Goldilocks frequency, one just right to shake loose pollen inside certain flowers such as tomatoes. In other words, they can do drive-by pollination without needing to land on the flower.

If you are not ready to mark out a pollinator superhighway, you can help make your community more bee and butterfly friendly by raising awareness about these issues, and by putting pressure on local officials to update zoning laws to allow more diverse landscapes in our towns and villages. Neat lawns are deadly to pollinators, so anything you can do to encourage diversity will help our them. For more information, visit http://www.pollinatorpathway.com or contact your local Cooperative Extension office.

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PIF note: With all the science teaching us the importance of pollinators to life itself, it was disturbing to read that the Trump administration has reversed the ban on bee-poisoning pesticides called neonicotinoids (neonics). Former director of the USFWS Jamie Clark said the move is 'an insult to our wildlife refuges and the wildlife relying on them'. Yet another comment on the move.....
"The more we learn about the toxicity of neonics, the more apparent it is that pretty much any plant with nectar or pollen sprayed with these poisons is unsafe for bees." Said Nathan Donley, Center for Biological Diversity

In a positive move for pollinators the Ottawa National Forest recently released the Wildlife Habitat Improvement Project which includes the promotion of plants sought out by butterflies and bees. This includes Milkweed, black eyed susan, false sunflower, native sunflowers, wild bergamont, sneezeweed, asters, swamp verbena, Joe-Pye weed, evening primrose, goldenrod, dogbanes, wild strawberry and old field cinquenfoil. For information on this project and its benefits to a vast array of wildlife contact Robin McCartney, Environmental Coordinator at 906-285-6971

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We have not yet heard the last word on Chaga!

Chugging Chaga at Tea-Time

Paul Hetzler, Cornell University

Ingredients for healthy beverages are free for the taking outdoors if you can get past the introduction stage. Hemlock tea, one of my favorites, is a good example. This is not the recipe poor Socrates used, which was made with the toxic perennial herb, poison-hemlock. The kind I serve is a vitamin-C-rich infusion of needles and young shoots from the stately eastern hemlock tree, *Tsuga Canadensis*. This hemlock tea is great with a touch of honey, and the good part is that you can drink it more than once. Plus it's fun to see the reaction when I offer it to guests.

A drink that is even more likely to empty your kitchen of visitors is parasite tea. Obviously some explanation is in order. For centuries, possibly millennia, tea made from *Inonotus obliquus*, a parasitic fungus that afflicts primarily birch trees, has been consumed in northern latitudes around the world as a medicine as well as a pick-me-up. Sometimes called cinder-conk because it looks as though it has been charred black, this native fungus is often called chaga in North America.

The health benefits of mushrooms such as reishi and shiitake have become more widely known recently, but chaga is odd because it is not a mushroom. Most fungi reside out of sight in the soil or inside tree trunks, and we only know they are present when they send up fruiting bodies (spore-bearing structures), known to us as mushrooms. Chaga's fruiting bodies are tiny, and remain under the bark unseen. The irregular, charcoal-colored chaga you may see protruding from a birch tree is actually the mycelium, or main body, of the fungus which is otherwise busy rotting the heart out of that particular tree.

While it is not good for trees, chaga has many reputed health benefits for humans. From the Ainu in northern Japan to the Evanki in Siberia to the Anishinabe in North America, chaga is respected by scores of indigenous cultures across the Northern Hemisphere. It is reputed to have antioxidant and adaptogen properties, and I find it gently boosts energy without being a stimulant. These days chaga is becoming popular in mainstream culture in North America, which is good news only as long as it is harvested sustainably. It can take a decade for a softball-size conk—the smallest which should be harvested—to develop.

It is heartening when science catches up with ancient wisdom. The website of the National Center for Biotechnology Information (NCBI), a branch of the U.S. National Institutes of Health, lists more than a dozen peer-reviewed studies on chaga for its anti-cancer attributes. The articles on the NCBI site conclude in glowing terms about the potential for chaga to combat many types of tumors, including liver cancer. By glowing terms I mean things like "Chaga extract caused G0/G1-phase arrest and apoptotic cell death in a dose-dependent manner." One very recent study, though, contained actual English: "The results of this study indicate that daily intake of the *I. obliquus* extract has anti-cancer effects." Pretty clear.

I first met chaga at the end of my rope. As a climbing arborist working in Saranac Lake, I had the task of swinging out to rig the snapped-off top of a huge old paper birch from the roof of a building. It had broken right at the site of a big chaga mass, which had caused extensive decay. Sadly, it all went through the chipper that day. If I had only known.

Chaga also seems to be particularly good at retaining an ember without burning up, and I am told it was used to carry fire between campsites. Once at a "primitive skills" gathering I saw a guy who could light chaga by compression, which is kind of cool. A tiny chunk was placed on the end of a short rod, which was carved to fit tightly into a hole drilled in a piece of horn. By slamming the rod in very fast, the heat of compression lit the chaga, much the way a Diesel engine runs on heat of compression. He pulled out the rod with the glowing chaga on the end and lit his cigarette. It was an impressive way to light up, but I think he missed the point about chaga's health benefits.

As with all natural supplements, you should check with your healthcare provider before drinking chaga tea. Or smoking cigarettes for that matter.

DEVASTATING EFFECTS OF CUTTING TOO MANY TREES

Look what happens when we cut down too many trees.

Global warming is one thing, but see below & look at what is happening if we continue to clear our forests!

We have to stop cutting down trees!

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PIF EDITORIAL

Concerns for the Environment and the Economy

Though not a distinct forest related concern, the health of the local economy is very important to PIF, and at times we simply need a bit of honesty told. One local concern we are hearing a lot about these days is how second home ownership on the areas lakes has entered a disturbing trend of weekly and short term rental. Why is this an important concern?

It is likely many lake home owners have experienced financial difficulty from the great recession which began as early as 2006. They turn to short term rental of their home, sometimes inherited, many times unaffordable, to soften their woes. The turn over of more and more people with no connection neither to the lake, nor to the place they rent can unduly affect the water quality and habitat. More, and heavier continuous use on a pristine lake will certainly have unconsidered consequences on the wildlife, such as nesting loons. In a traditional resort setting, the owner is certainly conscientious of the quality of the lake; his-her living depends on it. At the 'second' (lake) home there is no owner present when it is rented.

From an economic stand point, the practice damages the mom and pop resort business culture. Are these lake home owners held to the same standard? I doubt it. The resort owner charges and pays sales tax, room tax, has health department licenses and inspections and needs annual water testing.

Let's tell it like it is: a lousy practice with unconsidered consequences and yet another symptom of land fragmentation.

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BITS AND PIECES

With our past coverage of the controversial herbicide Glyphosate, it is worthy to note that the chemical giant Monsanto will exist no longer as spelled out in the terms of a buy out-merger with the German based Bayer. Bayer of course is the pharmaceutical, chemical and bio tech company. According to European news sources Bayer has plenty of baggage of their own.

The same day the $63 billion merger closed, a large French based honey cooperative filed suit against the company because Glyphosate was found in batches of honey over a 3 month period.

The International Agency for Research on Cancer refused immediately after the merger to back down on their statement that "Glyphosate is a probable carcinogen."

Thus the controversy shall continue.