

# A VISION REALIZED

TWO DECADES OF FOREST MANAGEMENT PAYING OFF



## FOR THE LANDOWNERS IVAN WITT WORKS WITH,

deciding whether to cut down trees in the name of profit or for the health of their woods is no decision at all.

His philosophy: Why not both?

Witt, of Gaylord, has been a forester for 21 years and is reaching a pivotal point in his career. Some of the forests where he works are seeing their third round of logging and his long-term visions for these forests, formed two decades ago, are just being realized.

## “NORTHERN HARDWOOD FOREST MANAGEMENT, IF DONE WELL, IS SO LUCRATIVE IT’S REMARKABLE,”

Witt said. “At the same time it improves tree health and wildlife habitat. It’s really a tremendous thing to do but you have to be patient and look at it with a long-term perspective.”

His prime example is a private forest north of Gaylord. When a legendary thunderstorm in 1998 brought 80-mph winds and caused significant damage to the property, Witt was hired to oversee the cleanup and thinning of the woods in the storm’s wake.

He did a second “weeding” of trees in 2006, giving the healthiest maple trees room to grow and mature. Speedy growth can increase a maple’s timber value by 5 percent a year, according to Witt.



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**“WHEN TREES GROW, THEIR CROWNS EXPAND OUTWARD,” WITT SAID. “WHEN THEY’RE CROWDED THEIR GROWTH SLOWS DOWN AND THEY’RE REALLY COMPETING WITH EACH OTHER. A FOREST AS A WHOLE WILL SHADE OUT THE UNDERGROWTH AND THEN THERE’S NO WILDLIFE HABITAT EITHER.”**



In the fall of 2016, all of Witt's planning paid off. Loggers selectively cut the mightiest maples that Witt had previously marked with his orange paint gun. Logs were graded and stacked according to their quality, then trucked to a mill in Onaway. The finest logs, destined to become furniture or veneer, can fetch \$500 to \$1,000 each, and dozens were stacking up along the logging road. Large upper branches will be sold as firewood. "This will be a lot of money for the landowner," Witt said, gesturing to the towering stacks of logs, "but that's low on the list for most landowners."

The outermost branches that aren't mulched will be stacked in piles to become habitat for rabbits, red squirrels and chipmunks. Bark and other debris will decay and provide valuable nutrients for the new undergrowth that will arise beneath new openings in the canopy. This new growth means more food and cover for all kinds of wildlife – the ultimate goal for most landowners Witt works with.

Witt earned his bachelor's degree in forest management from MSU where he was taught the theories surrounding long-term forestry practices for sustainable harvest. "It was theoretical back then," he said. "Now it's coming together, now I see the actualization of it and it's right on target. It's a textbook example of crop-tree management."

Managing a forest for crop trees calls for selective thinnings or harvests every 8 to 12 years. Witt considers himself conservative, choosing to cut fewer trees more frequently. "It'll be another eight years before we do another harvest and it should keep going at that pace," he said. "In 16 years someone will thin the smaller trees that are just being established now and it will go on in perpetuity that way."



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# CANADA CREEK RANCH

A THRIVING WILDLIFE HABITAT



**DURING THE 2015 SEASON, HUNTERS AT CANADA CREEK RANCH IN NORTHERN MONTMORENCY COUNTY HAD ONE OF THE HIGHEST DEER HARVESTS IN THE RANCH'S 80-YEAR HISTORY, AND THOSE WHO OVERSEE THE PROPERTY ATTRIBUTE THAT MILESTONE TO EXTENSIVE TIMBER MANAGEMENT.**

Jim Treadway has lived on the ranch since 1993 and focuses his energy on efforts to emphasize quality habitat for deer and other wildlife.

We have good records of deer harvest since 1934 and have really good data for more recent years," Treadway said in December 2016. "This year we have taken 160 deer and 178 in 2015 – that was the highest we've had in years and we had more 8-pointers than we've had in the history of the ranch," an achievement he also attributes partly to antler restrictions.

## **THE RANCH'S ROOTS DATE BACK TO THE EARLY 1900S, WHEN NEIGHBORING BLACK RIVER RANCH BOUGHT 13,000 ACRES OF MOSTLY CUTOVER LAND ON CANADA CREEK TO RUN CATTLE AND PRESERVE WILDLIFE.**

After the Great Depression of 1929, the property was sold to an investor who blocked off 12,500 acres as hunting land and sold residential lots on the remaining acreage. In 1934, Canada Creek Ranch was born. That setup still exists today, and about 100 families live year-round on a relatively small chunk of land east of Canada Creek. Everything west of the creek is known to members as the Outback, a sprawl of forests, fields and two-track roads open entirely to hunting.

Aside from 1,300 acres of scattered lowlands, the Outback is open to cutting and is broken into six units for that purpose. "That leaves us with 11,200 acres we manage primarily for wildlife habitat," Treadway said.

A forest-management plan formed in 2001 GPS mapped the entire Outback by cover type, age, and date of last treatment. Under this plan, about 350 acres are treated every year, primarily with thinnings in hardwood and red pine stands and clearcuts to regenerate areas of predominantly aspen and jack pine. Treadway said revenue from timber sales pays for professional foresters to oversee and institute plans, as well as to fund the planting of trees and grasses. A total of 106 acres, including gas well pads, are planted in rye and clover as wildlife browse, and another 80 acres are mowed regularly.



"It makes for good viewing of wildlife for the members who like to go drive through the outback and see the animals grazing in the fields," said Nancy Thurston, board member for the ranch. "It all supplements the deer population and we try to get them going into winter in the best condition we can."

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Ranch general manager Eric Johnson said the membership's opinion of the cuttings is across the board. "It's a challenge to hold fast and do the right thing," Johnson said, "but the plan is for wildlife, not people or aesthetics." Timber harvests are done in winter, partly to minimize disturbance to members and partly to avoid the spread of oak-wilt disease, but mostly for the benefit of deer who feed on the freshly fallen tree tops.



"The cuttings are key to the deer's winter food supply," Treadway said. "Once we have six inches of snow the grasses are useless." Both Treadway and Thurston said the sound of chainsaws in the wintertime Outback attracts deer and elk, who wait in the wings to feed on the tender fallen tree tops.

The ranch's geographic location near the 105,000-acre Pigeon River Country State Forest puts it dead center in Michigan's wild elk range. This has been a unique challenge for the ranch's forestry efforts in terms of carrying capacity. "One of the major problems we have is elk," Treadway said. "Our aspen stands are safe from deer after two years of growth, but elk can reach 7 or 8 feet and break tops off and those trees die."

An aerial elk survey in the winter of 2015 by the Department of Natural Resources covered about two-thirds of the ranch property and counted 170 elk there.

"This is where the food is," Treadway said. "We like to see them but there are too many – for every elk we could carry 4 or 5 deer." A December hunt is held to control elk numbers and hunters are allowed onto the ranch with appointed guides. In December 2016, 25 elk were harvested on the ranch.

## THE RANCH'S FORESTRY EFFORTS BENEFIT MORE THAN JUST DEER.



"In 2006, the ranch conducted a 19-acre burn of standing jackpine as an experiment for Kirtland's warbler habitat. Those trees were then cut and their fire-activated seeds were left to sprout naturally. "We got good regeneration from that burn," Treadway said. "It looked really good, with more random spacing between trees."

The ranch is just a couple miles away from a state-owned Kirtland's warbler management area near Clear Lake. Strips of tag alder near the creek have also been clearcut, in collaboration with the U.S. Fish & Wildlife Service and Ruffed Grouse Society, to regenerate habitat for woodcock and grouse.

Every yearly forestry prescription goes through a 9-step process of approval, including two field tours for residents, before being implemented. The plans are also scrutinized by a conservation committee separate of the ranch board. Opinions of residents toward the forestry efforts are mixed, but emphasis remains on the animals.

"Generally speaking, our little community is a cross section of the entire state," Thurston said. We have just about everyone here as far as opinions go. But the conservation committee has always said that we'll cut as much as we can because the whole purpose is to benefit the animals. Every professional we've invited out here – and we've had them from all different areas of interest – say they wish we could do this across the rest of the state."



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# CEDARS FOR THE AU SABLE

HOW ONE TREE GAVE RISE TO 20,000

## THE PLANTING OF 20,000 CEDAR TREES ALONG THE AU SABLE AND MANISTEE RIVERS



He began with a fruitless search 25 years ago for a single, surviving sapling.

Howard Johnson, whose century-old cabin overlooks the Au Sable River's south branch at the secluded Bay City Hunting & Fishing Club southeast of Grayling, came to notice decades ago that no young cedars were developing on his riverbank.

### **"I WENT DOWNSTREAM TO THE MASON TRACT TO FIND A COUPLE CEDAR TREES TO PLANT ON MY PROPERTY,"**

said Johnson, admitting the endeavor would've amounted to taking from state land had he succeeded. "I couldn't find any small ones, then I realized I couldn't find any cedar trees at all." The deer had beat him to the punch.

Whitetails browse succulent cedar growth within their reach, including the tender tops of saplings. Taller trees are able to survive as most of their growth is too high to eat. "The deer were preventing trees from maturing," Johnson said. "This phenomenon is happening in a lot of Northern states that have high deer populations." This was old news to the Crawford-Roscommon Conservation District, whose sale of cedar saplings to Johnson came with a word of caution: Cage the trees or risk losing them to deer. "So I spent \$100 getting materials for cages for my trees," Johnson said.

The cages worked and his trees survived.



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# AT THAT TIME, JOHNSON WAS ON THE BOARD OF THE AU SABLE PROPERTY OWNERS ASSOCIATION, TO WHICH HE PROPOSED STARTING A PROGRAM TO OFFER CEDAR-TREE KITS TO RIVERSIDE RESIDENTS.



A package of 10 trees and cage materials, subsidized by many different river conservation groups, would cost landowners \$15. "It provided property owners with a convenient way of planting cedars on their property by gathering together everything they needed while making it affordable," Johnson said. "Without the support of these various groups the cost we'd have to charge property owners (\$45) would be prohibitive." Cedars for the Au Sable, as the effort was dubbed, was a hit its first year.

"We found out that people love to plant trees," he said. Since then, McLean's Ace Hardware has lent a hand by warehousing all the cage materials at its Grayling store. "My dad started working with (Johnson) a long time ago and I've carried on the tradition, doing what we can to help the community," said owner, Jason McLean. "We agree that it's still a good idea."

Aside from looking nice in a yard, cedars serve many vital roles in a river ecosystem. Mature trees shade the river from sunlight, keeping water cool. Roots stabilize the bank and prevent erosion. Old trees that topple into the river become valuable habitat for fish and macroinvertebrates, and rot-resistant cedar can linger in the current for decades.

**"AS FLY FISHERMEN IT'S IMPORTANT TO US, LONG RANGE, THAT THESE TREES EVENTUALLY FALL IN THE RIVER AND BECOME FISH COVER," JOHNSON SAID.**

Cedars for the Au Sable fulfills its mission on several fronts. Mailings are sent to river property owners with information about the program and, each year, about 40 or 50 residents pre-order kits totaling about 500 trees. About 20 percent of riparian property owners along the river have taken part.

The Department of Natural Resources goes through the program to acquire trees it plants at road ends and river-access points.

"We also have cooperative agreements with the DNR to plant on state land, including the Mason Tract where it all began," Johnson said. About 1,250 cedar saplings have been planted at the Mason Tract so far. Each year a crew of volunteers repair tree cages and install larger ones on trees that have grown. Trees stay in cages for about 15 years before they're tall enough – 6 feet or more – to survive unprotected.

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# DESPITE ALL THIS EFFORT, SOME TREES FAIL TO THRIVE.

JOHNSON WONDERS IF GENETICS ARE TO BLAME, AND PERHAPS CEDARS ARE SO SPECIFIC TO A REGION THAT ONLY LOCAL SEED STOCK WILL YIELD THE BEST RESULTS.

## THE GROUP HAS BEEN COLLECTING

seed pods from mature trees in areas where they plan to plant saplings. Those pods – each containing about 10 tiny seeds – are sent to nurseries which grow them to two-year saplings before they are planted back in the same area with their parent trees.



**“NO ONE HAS DONE A STUDY LIKE THIS TO SEE IF WE HAVE BETTER SURVIVABILITY BY USING THAT SAME RIVER’S SEED STOCK,” JOHNSON SAID. “WE HOPE WE CAN REDUCE THE NUMBER OF TREES THAT HAVE JUST STALLED.”**

Regardless of genetic variation, Ivan Witt, the forester who's worked with the hunting and fishing club where Johnson lives, feels the efforts of determined volunteers to plant and protect trees are most crucial to the success of the program.

“It is super high maintenance to keep up those cages but they've had some real success,” Witt said. “It really shows his long-term dedication to the success of this project.”



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# CONNECTIONS TO HOME

## A VOLUNTEER'S PERSPECTIVE ON STEWARDSHIP OF PUBLIC LANDS

### “IT’S ABOUT TREADING LIGHTLY”



“When I think about the damage we do to the natural world as humans, it makes me want to give back with some good,” says Warren Zimosttrad. Warren and his wife Bryana make a great team, working together to leave behind a trail of life as they move ahead planting a line of trees in Northeast Michigan’s sandy soil.

Pausing from their work, they strike a pose—Bryana holding a bouquet-sized bunch of jack pine seedlings and Warren with a heavy iron planting tool called a dibble bar resting casually over his shoulder. This charming couple is as big-hearted as they are photogenic.

### “I’VE ALWAYS HAD A DEEP CONNECTION TO PUBLIC LAND,” SAYS WARREN. “WHEN I THINK ABOUT IT, IT GOES RIGHT BACK TO FAMILY.”

For the third year in a row now, they’ve made a five-hour round trip pilgrimage to northern Michigan from their hometown of Grand Rapids. Their destination? To participate in Huron Pines’ annual Jack Pine Planting Day volunteer event, planting acres of the unique and scraggly jack pine tree for the rare Kirtland’s Warbler and other wildlife. They come every year to celebrate Warren’s birthday, which falls on the same weekend.

He grew up near Michigan’s Saginaw Bay, exploring areas near Bay City and Caseville alongside his father, an avid outdoorsman. Warren fondly recalls days spent discovering the Rifle River Recreation Area and being amazed at its vastness.

Later in his life, while spending time together at their family land in Rose City, Warren’s uncle brought up a topic that would light a new passion for him—the Kirtland’s Warbler, North America’s rarest songbird.

Warren was intrigued as he learned more about the Kirtland’s Warbler, the endangered species in his backyard. This charming black and yellow bird nests primarily in the jack pine forest of Northeast Michigan and sings its joyful song from the treetops, a beautiful sound that was almost lost forever.



Source: USFWS



# “I GUESS YOU COULD SAY THE KIRTLAND’S WARBLER HAS DEFINITELY MADE AN IMPRESSION ON ME...”



Once nearly extinct, the Kirtland's Warbler's story is one of teamwork and decades of scientific collaboration to find out how to save the crashing population, recovered from as few as 167 singing males to over 2000 singing males in 2016. Inspired by this Michigan success story, Warren was hooked on the Kirtland's Warbler.

“I kept learning all I could and started getting involved,” explains Warren. “Planting these jack pine trees on public land with Huron Pines and partners every year is a great way to give back.”

Warren wants people to understand that public forest lands are incredibly important for healthy waters and diverse wildlife like the Kirtland's Warbler. Besides volunteering to plant jack pines, Warren and Bryana are also becoming Citizen Foresters in their hometown.

“I guess you could say the Kirtland's Warbler has definitely made an impression on me,” he grins as he reveals the grapefruit-sized Kirtland's Warbler tattoo on his forearm.

“I would encourage everyone to get outside, find some public land and find something that moves you—whether it's bird watching, trail running, or just the peace and solitude of the forest. The next step is to work together with others to protect it.”



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# PRIVATE FOREST STEWARDSHIP

LANDOWNER, AGENCIES, A FORESTRY BUSINESS  
AND NONPROFIT PARTNER FOR FOREST HEALTH

## PETE IS A HUNTER WITH A UNIQUE PROBLEM...



There's more wild game on his Cheboygan County hunting land than he knows what to do with. "I don't have time for it all because I'm also a fisherman," the lifelong Livonia resident joked.

The bounty of whitetail deer, upland birds and other game didn't exist on Pete's 225 forested acres when he bought it 25 years ago. He credits the positive change to hard work and a comprehensive management plan that has promoted wildlife habitat on his property while boosting the health of its valuable hardwood forest.

### "PETE IS A GOOD EXAMPLE OF A TYPICAL FOREST OWNER WE WORK WITH,"

said Keith Martell, owner of Martell Forestry, Inc. in Gaylord. "He's a hunter and was interested in planting shrubs for grouse and food plots for deer – which a lot of people do – but he also wanted to improve his forest for wildlife and manage the woods for timber production."

Pete enlisted Martell Forestry to develop a plan for his forest getaway that would cover those bases. That plan broke the property down into management units shaped by tree size, density, species and a general time line for forest treatments – including thinnings, clearcuts and plantings spanning years.

During initial visits to the property, Martell found infestations of the invasive emerald ash borer beetle in Pete's dying ash trees and signs of beech bark disease, a fungus attacking and killing beech trees there. Those trees had to go, not just because they were sick but also for the secondary insects or diseases they might attract and spread to surrounding trees.

"An overstocked stand with a sick tree will cause them all to get sick," Martell said. "If the stand is thinned properly leaving only healthy trees, they're less susceptible to diseases or insects."



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**“HURON PINES WAS INSTRUMENTAL IN HELPING PETE WORK IN SOME FOOD PLOTS AND HE’S STARTING TO REAP THE BENEFITS OF IT, INCLUDING SEEING MORE DEER,”  
- PERRY SMELTZER, USDA-NRCS**



Further down the road, healthy hardwood trees like Pete's sugar maples will become prized logs for lumber – money from which Pete plans to invest straight back into more habitat projects. Again, Martell will direct Pete and a logger when and where to cut based on the market value of those saw logs.

Pete noted how broader thinning and clearing of trees in specific areas of his land generated space for other shrubs to grow. Those cutovers have produced low, tender shoots as browse for deer year round. Areas where he clear cut aspen trees two years ago have shot up 10 feet and now harbor countless grouse, woodcock and other animals, including elk.

Pete's worked with Perry Smeltzer, district conservationist for the USDA's Natural Resources Conservation Service, along with Huron Pines and the Cheboygan Conservation District to plant native crabapples, shrubs and food plots. Pete said his property lies in a region where agriculture – another valuable source of food for deer – is less than what it once was so the herd is more dependent on his property for food and cover.

“Huron Pines was instrumental in helping Pete work in some food plots and he’s starting to reap the benefits of it, including seeing more deer,” Smeltzer said. “We’ve also done some tree and shrub plantings around open areas, specifically fruit-bearing shrubs for the benefit of deer, turkey and grouse.”

“Those have been icing on the cake,” Pete said of the plantings. Smeltzer noted that, In addition to its perks for wildlife and hunting, a qualifying forest management plan on non-homesteaded forest property can earn a landowner significant tax breaks of 16 mills per year through the federal



Environmental Quality Incentives and Conservation Stewardship programs. “I’m very pleased with the outcome there,” Smeltzer said. “Pete relied on seasoned professionals to help him make sound management decisions and, in the end, he’s reaping the benefits.”

“Pete's land is a perfect example of a well-managed forest,” Martell added. “This guy's really passionate and, just like anyone who's had a good experience with it, has become an advocate of forest management.”



This publication was funded in part by the Great Lakes Fishery Trust..

# HARTWICK PINES STATE PARK

AN OLD-GROWTH TIME CAPSULE

## HARTWICK PINES

is a living reminder that Northern Michigan was once home to giants.

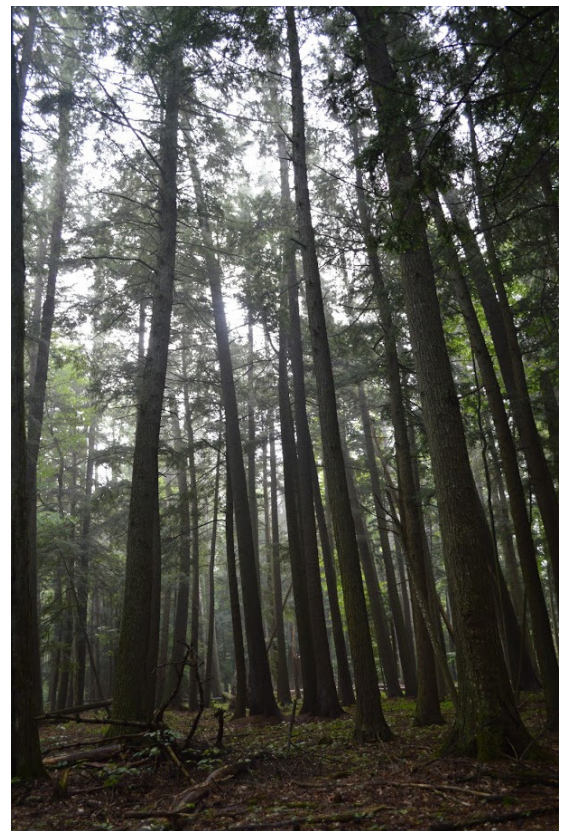
The giants were trees – white pines so massive they would dwarf lumberjack legend Paul Bunyan and his mighty axe. In the late-1800s, however, even the grandest of Michigan's trees were no match for the hordes of lumbermen, their teams of powerful pulling horses, and their sharpened steel bits.



**“WE HAVE REMNANTS OF WHITE PINES THAT DEPICT WHAT MICHIGAN USED TO LOOK LIKE BEFORE THE WHITE PINE LOGGING ERA,”** said Craig Kasmer, park

interpreter and 15-year veteran of the state park in Grayling that is home to the Lower Peninsula's largest contiguous forest of old-growth white pine.

Michigan goes way back with the lumber industry and the roots of most northern towns are deeply embedded in it. Settlements sprang up around saw mills, rail yards and ports where the lumber was cut, carried and shipped to market. Those settlements became the towns of Grayling, Gaylord, Alpena, Vanderbilt, and so on.



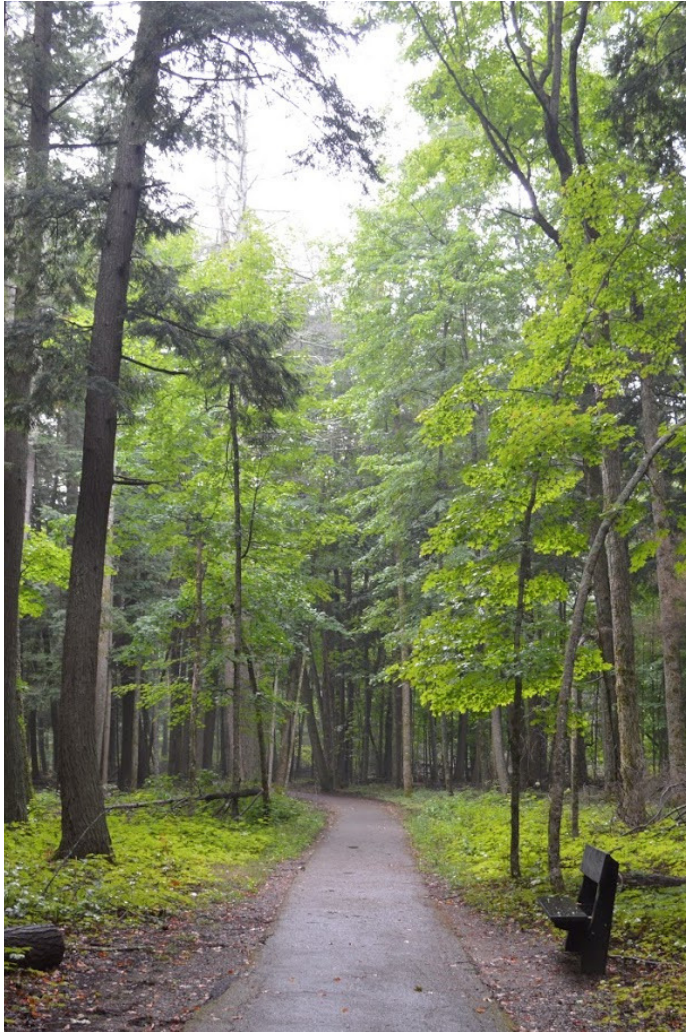
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# THE HISTORY OF HARTWICK PINES' OLD-GROWTH FOREST CAME TO A HEAD AT THE CRITICAL YEAR OF 1893



**“SALLING-HANSON LUMBER COMPANY WAS HARVESTING PINES HERE,” KASMER SAID. “THAT YEAR THERE WAS AN ECONOMIC PANIC NATIONWIDE AND THEY STOPPED CUTTING.”**

When the sawdust settled, only 86 acres of the once-sprawling old-growth forest remained.

Cutting resumed when the recession ended a few years later. Salling-Hanson had to decide whether to clear the remaining 86 acres or move their men northwest to a recently acquired 8,000 acres of standing white pine. They made their move, sparing what would become the state park. “If there had been no recession they would have continued clearing here,” Kasmer said.

The remaining grove of old-growth trees, along with thousands of surrounding acres, were given to the state in 1927 by Karen Hartwick in memory of her late husband, Major Edward Hartwick, with the stipulation the trees be protected. The area became a State Park July 19, 1935.

Much of the park's 9,672 acres is northern hardwood forest boasting giant beech and maple trees more than 100 years old.

“When the pines were cut it opened up the canopy, giving more light to the sun-tolerable plants like hardwood trees,” said Abby McCutcheon, Seasonal Interpreter at the park.

Kasmer said the white pine make valuable habitat for porcupine, raccoon, opossum and the occasional bear. Deer use the area as a wintering grounds and the eastern hemlock intermingling with the pines attract evening grosbeaks and the birders who come to see them.

**With the saws long silent, Mother Nature is the biggest threat to the forest. In September 1929 fire breaks and a crew of 300 halted a wildfire less than a mile from the pines. In 1940, hurricane-level winds took out 40 percent of the old growth stand, leaving a mere 49 acres today..**

# LIGHTNING STRIKES, THOUGH INFREQUENT, CAUSE THE WATER INSIDE THE TOWERING PINES TO INSTANTLY FLASH TO STEAM, TURNING THE TREES INTO 150-FOOT WOODEN BOMBS WHEN HIT.

## SPLINTERED SHRAPNEL FROM A STRIKE 11 YEARS AGO

is still scattered far from its tree and another strike in September caused a fallen treetop to crush the paved pathway where it landed.

"This is why we don't let people leave the visitor's center in a thunderstorm," McCutcheon said as she stood on the patched asphalt.

In the areas of the park where northern hardwoods grow, an invasive insect infects the beech trees with a fatal fungus. The millions of insects look like white powder coating the bark of the beech trees. Not all of the beech trees are infected, yet...

"Just like the emerald ash borer took out the ash trees, beech scale will be the end of the beech trees," said McCutcheon.

Humans may also still damage the forest.



## THE MONARCH,

once the park's biggest white pines at 155 feet tall, was topped by wind in 1992. Decades of park visitors circling or hugging the tree compacted the soil around its shallow roots and, in 1996, the Monarch Pine was pronounced dead. That tree was found to be 325 years old when it died, meaning it was a sapling when Isaac Newton was studying light, Louis XIV was king of France, and St. Ignace was founded by Father Marquette. "Now it's a lovely, 70-foot snag," McCutcheon said of the Monarch's, woodpecker-punched trunk.

The park urges visitors to stay on the trails. A 1 1/2-mile paved path winds through the old growth section. Another 3-mile trail crosses the East Branch of the AuSable River twice and cuts through an old-growth stand of eastern hemlock, a tree once valued for its tannic acid used by trappers to preserve animal hides.

"It's really spectacular through there," McCutcheon (pictured left) said of the river trail.



The park also does programs at area schools in the and hosts guided hikes throughout the year, along with numerous other programs. More information can be found online by visiting [www.michigan.gov/dnr](http://www.michigan.gov/dnr) and searching "Hartwick Pines." Hartwick Pines State Park is located at 4216 Ranger Rd., Grayling.



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# HOLY WATERS

WHERE THE AU SABLE RIVER, JACK PINE BARRENS,  
AND LOCAL ECONOMY MEET: CRAWFORD COUNTY, MI



Approaching Grayling from any direction, it can be hard to visualize a river existing in a landscape that so often resembles a desert of scrub and sand. It is this very terrain that gives the Au Sable River both its name and its renowned cold, clean water teeming with trout and the anglers who pursue them.

Josh Greenberg is the owner of Gates Au Sable Lodge, which sits in the middle of what fishermen call the “Holy Waters” for its trophy brown trout. Any given trout season, from April through October, Greenberg welcomes guests from 50 states and several countries who make the pilgrimage to Northern Michigan to stay at his lodge, eat in his restaurant, buy gear in his fly shop and fish the river.

The young businessman breathes trout fishing most of the year but spends winters writing about it. His recent book, “Rivers of Sand,” is part guidebook and part storytelling as it follows the river from its upper reaches to its confluence with Lake Huron in Oscoda. The book’s title is both a translation of the river’s name – “au sable” meaning “of sand” in French – and a reflection of the river’s unique geology.

“We have this giant, filtering sponge surrounding the river,” Greenberg said of the sandy soil. “It makes the Au Sable a stable river in terms of flow, and not much surface water makes its way into the river. It really is good, quality water that comes out of the ground.”

It’s this water that groups like Trout Unlimited and Anglers of the Au Sable aim to preserve. Coincidentally, TU – now a national organization – was founded on the banks of the river in 1959.

John Walters lives 40 miles north in Vanderbilt and is the former chairman of both Michigan TU and his local Headwaters chapter. He carries a fly rod and waders in his truck at all times.

“Most people come from a trout fishing background and their angling type doesn’t much matter,” he said of the group’s membership base. “Then there are others who recognize the importance of protecting cold ground water and know TU is heavily involved in that.”



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One project TU's Mason-Griffith Founders Chapter is working on through 2017 is the restoration of Big Creek, a tributary of the Au Sable's west branch where years of heavy beaver activity have impounded water, silt and sand. "Consequently, when that dam is removed and sediment is managed, gravel is exposed and trout then have the opportunity to spawn in those areas," Walters said, adding how water keeps much colder when allowed to flow freely.

The chapter is also working with the state and other conservation groups to identify and map potential projects on the river's north branch. Those plans include the addition of large woody debris -- strategic placement of logs and fallen trees in and along the river to make habitat for young trout and insect larvae, a significant food source for fish.



Anglers of the Au Sable has a mission similar to TU but focused almost exclusively on this river and its tributaries. Vice president Joe Hemming has been with the group for 7 years and has had a cabin on the river since 2001 as a retreat from life in metro Detroit. A history buff, Hemming credits fishermen for helping reverse damage caused by the timber industry more than a century ago.

"There was a lot of restorative work that needed to be done after the lumbermen passed through," Hemming said. "We had to replant our woods and provide cover for fish. The region woke up after the lumbering days and realized, 'Jeez, we have something valuable here -- fish -- and people will pay money to come here and fish.' The fishing industry came on the heels of the lumber industry and took over in keeping the economy going."



Hemming said his Anglers group has been "instrumental" in establishing catch-and-release sections of the river, one of those stretches being the world-famous Holy Waters where Greenberg's lodge resides. "Without those regulations we wouldn't have the fishery we have today," Hemming said. His group has also taken part in litigation involving the permitting of a fish farm at a former hatchery on the river and oil and gas activity within the watersheds of the Au Sable and Manistee rivers. Most recently Anglers has been developing a plan of attack against the invasive New Zealand mud snail, a tiny, nonnative mollusk which could disrupt the food chain. Hemming believes, "There's always going to be pressure on the river,"

"We've found that if it's not one thing, it's another. There are always threats to the river and we need to be vigilant as an organization," Hemming said. "A business that's completely reliant on the river wouldn't last long if the river's not healthy," Greenberg added. "This is a river town. You can catch trout in every state, including Hawaii, but you can't catch wild, rising trout just anywhere. It's more rare than people think."

Learn more

Gates AuSable Lodge: [gateslodge.com](http://gateslodge.com)

Trout Unlimited: [MichiganTU.org](http://MichiganTU.org)

Anglers of the AuSable: [ausableanglers.org](http://ausableanglers.org)



This publication was funded in part by the Great Lakes Fishery Trust..



# BRANCHING OUT

A LANDOWNER'S PERSPECTIVE ON LEARNING NEW WAYS TO PROTECT LAND, WATER AND WILDLIFE



## THE OPPORTUNITY TO PURCHASE A BEAUTIFUL HOUSE

perched on a hillside overlooking a scenic bend of the North Branch Au Sable River was one that fly-fishing enthusiasts Jerry and Fran Rucker could not pass up. They bought the home in 1993, including five acres of land, and have been rewarded with plenty of great fishing over the years. But the decision to live here has led the Ruckers to discover additional benefits, as well as responsibilities, of living and owning property in Michigan's Jack Pine Ecosystem.

### **“THE RIVER WAS THE MAIN REASON WE BOUGHT THE PLACE, BUT OVER TIME OUR INTERESTS HAVE EXPANDED TO OUR FORESTS AND UPLAND WILDLIFE.” JERRY SAYS.**

Most of the Rucker property is dry northern forest composed mostly of jack pine, mixed with a few poplar, spruce, oak and white pine. Jerry and Fran have observed an impressive list of bird and mammal species using their property. The Ruckers consider themselves casual birders, keeping a list of the more than 50 bird species they have observed on their property—many of these while drinking morning coffee on the porch overlooking the river. White-tailed deer, mink, otter, beaver, bobcat, wild turkey, barred owl, bald eagle, wild turkey and grouse are among the wildlife that Jerry and Fran have been observed on their land. For the Ruckers, living on the North Branch Au Sable River is about more than just watching. The Ruckers are active stewards of their land, part of the reason they are visited by such a rich diversity of wildlife. The previous owner had planted non-native blue spruce and other ornamental plants, most of which have been removed and replaced with native species. Jerry and Fran plan to rototill an area near the house and plant a variety of native wildflowers to help attract pollinating insects, which also draws various species of birds.



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**JERRY AND FRAN HAD TREES STRATEGICALLY CUT FROM THE PROPERTY TO CREATE BRUSH PILES FOR UPLAND WILDLIFE HABITAT AND FOR USE IN A TREE REVETMENT, WHICH WAS INSTALLED BY HURON PINES TO HELP PROTECT THEIR STREAMBANK FROM EROSION WHILE ALSO PROVIDING COVER FOR FISH AND OTHER AQUATIC ORGANISMS.**



## IN THE EARLY 2000S,

Fran and Jerry bought seven adjacent acres of land, primarily out of a desire to preserve its natural condition. Just as Jerry's interest in the property expanded from trout in the river to the forests and upland species, his interest in stewardship grew beyond the boundaries of his own property. Jerry has served on the board of directors for the Au Sable North Branch Area Foundation for nearly twenty years.



He says one of his goals serving in that capacity has been to educate other landowners about Michigan DNR Natural Rivers Zoning regulations, which, he says "...are in place to keep the river, and the fishery, healthy."

Jerry also currently chairs the board of directors for both Huron Pines and the Kirtland's Warbler Alliance. It's a lot of responsibility to take on. Asked why he felt compelled to become so involved in these regional conservation efforts and organizations Jerry summed it up with a simple statement: "It is a way to give back."



Jerry grew up fishing and hunting, and he says he recognized that "something needed to be done." It was not enough for him to simply observe and enjoy northern Michigan's fantastic natural resources. He also encourages other landowners and resource users to become more involved in stewardship and offers some advice, "Everyone arrives with a focus—fishing, hunting, et cetera. Don't just look at the fish, or the forest. Broaden your focus, and don't be afraid to help out with what other people like. It's all connected."



This publication was funded in part by the Great Lakes Fishery Trust.

# KIDS OUTDOORS OTSEGO

**BUILDING 'FUTURE PROTECTORS' OF THE ENVIRONMENT TODAY**



Something unusual happens when children step into the woods during a Kids Outdoors Otsego (KOO) hike: They slow down, fall silent, and let their senses guide them to new discoveries. “We like small groups because we encourage kids to take their time and explore their world closely,” said Sam Cornelius, KOO founder. “If they want to spend five minutes looking at mushrooms at one spot, we let them do it. To really appreciate and get to know the things you’re seeing, smelling and touching takes a little time.”

Since 2010, Cornelius and co-founder Nancie Kersey have organized a handful of KOO events annually in the Gaylord area, encouraging families to explore their local surroundings year round through short, guided nature hikes close to home.

Most recently, KOO hosted a hike at Leonard Jensen Nature Trail, a short circuit of trails that, in October, was blooming with all kinds of colorful mushrooms and fungi erupting from the forest floor.

On this and past hikes, kids make their own cardboard-tube binoculars and microscope-like “lookers” -- not necessarily to magnify anything but rather to frame a small piece of nature to focus on and admire up close, like bugs, moss and mushrooms. This particularly patient approach to outdoor adventure stems partly from Cornelius’ day job: For 20 years he’s worked with infants and toddlers with developmental delays, helping them and their parents address and overcome challenges associated with those disabilities.



“Following a child’s lead and responding to what they do is good for child development in general and in nature,” Cornelius said. “I encourage parents to be responsive to their kids’ interests. It’s not only what we do on hikes but it’s a great way for parents to support their child’s development, whether they have special needs or not.”

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# “WE CERTAINLY HOPE KIDS WHO ARE ENJOYING THE OUTDOORS IN MICHIGAN WILL BE ACTIVE PROTECTORS OF IT WHEN THEY GET OLDER.”

In his past job as a prevention consultant, he often used the outdoors as a therapeutic tool for clients undergoing substance-abuse treatment or weathering other rough patches in their personal lives. “They responded to it and that’s always resonated with me too,” he said. “Being outdoors is just good for us.”

The first KOO event was a snowshoe hike coinciding with Gaylord’s annual Family Fun Fair in 2010. Cornelius and Kersey put it together to offer an outdoor element to the indoor event. It was a hit. “After that, we started doing an activity every couple of months and people started asking us what our group was called,” he said.



“That’s when we finally came up with the name.” KOO follows in the shoes of groups like Boy Scouts, Girl Scouts and Outward Bound – all of which are on a much larger scale but were born from the realization that kids were spending more time indoors and skills were being lost.



“It’s not a new idea,” Cornelius said, “but Kids Outdoors Otsego is low tech, there’s no membership fee and no charges. If you have the right clothes on you’re good to go. It’s a very simple approach.”

Past KOO hikes have taken place on the shore of Pickerel Lake in the Pigeon River Country State Forest, HeadWaters Land Conservancy’s Sturgeon River Preserve, and at the Otsego Environmental Learning Site in Gaylord. At each one, KOO tries to leave the site better than it was found, and the kids often help by picking up trash they might find in the woods. Cornelius sees it as a way for them to take ownership of their environment.

“Kids who have a greater exposure to natural settings have a higher appreciation for it and tend to be more active in environmental and conservation activities as adults,” he said. “We certainly hope kids who are enjoying the outdoors in Michigan will be active protectors of it when they get older.”



This publication was funded in part by the Great Lakes Fishery Trust.

# LITTLE TRAVERSE CONSERVANCY

PROTECTING LAND 'THE OLD-FASHIONED WAY' THROUGH OWNERSHIP



On top of already abundant public land, the people of Northern Michigan have access to 17,000 acres of scenic places owned and protected by Little Traverse Conservancy, thanks in part to forest management and logging on some of those lands.

Founded in 1972, the conservancy serves the tip of the Lower Peninsula, the eastern half of the Upper, and three island chains in lakes Michigan and Huron. Among its preserves are vistas overlooking Petoskey and Charlevoix, and secluded creeks that wander freely among snow-laden trees.

“The McCune Nature Preserve east of Petoskey is my favorite,” said Tom Bailey, executive director and 32-year veteran of Little Traverse Conservancy. “I love to get on my snowshoes and go down to Minnehaha Creek where the water is babbling through the forest and there’s snow on the hemlock trees. It’s just beautiful.”

Those 170 acres were donated in 1984, but other lands owned by the conservancy were bought partly with funds from timber sales on its working forest reserves – conservancy-held lands whose forests are managed for the benefit of wildlife and as a revenue stream for future land acquisitions.

Kieran Fleming, 17-year director of land protection, draws a distinction between the two kinds of properties owned by the conservancy. “Nature preserves are typically what people think of when they hear we own property,” Fleming said. “For the most part we let nature take its course.” Those preserves are denoted with brown signs bearing the name and establishment date of the preserve.



Working forest reserves, on the other hand, undergo carefully-designed timber harvests to improve wildlife habitat or facilitate certain uses by the public. Small clearcuts or thinnings, Fleming said, mimic natural events and create diversity in the landscape. Their signs are green. “Some of our reserves have the same age class of trees,” he said. “We want to diversify it so a wider range of wildlife is benefited.”

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# “WE’LL CONTINUALLY FORSAKE FINANCIAL GAIN FOR SOMETHING THAT’S GOING TO BENEFIT THE WILDLIFE. WE’RE DOING THIS WITH THOUGHT AND A PLAN AND A PURPOSE.”

Planned logging projects, called prescriptions, are written by professional foresters and scrutinized by a wildlife biologist before going forward. Most cuttings are done in the winter to minimize disturbance to the soil and to visitors, though Fleming said loggers the conservancy hires do an excellent job of explaining their work to passers-by who stop and ask questions.

Revenue from timber sales are used in conjunction with donated funds to buy lands with the most value in terms of recreation, geographic location, or proximity to other conservancy-held lands.

Among these is the Offield Family Nature Preserve, 390 acres of woods and meadows a few miles away from Harbor Springs. The preserve came into the hands of Little Traverse Conservancy enrolled in the state’s Commercial Forest Program, meaning it had an ongoing forestry plan. The conservancy carried on the logging plan with a hardwood and red-pine thinning in December 2016, but with its own guidelines.



“We drew a 300-foot circle around a goshawk nest in a pine plantation and left those trees alone,” Bailey said. “What we’re trying to convey to people is that there’s a right way to do this,” Fleming added about logging at the Offield preserve. “We’ll continually forsake financial gain for something that’s going to benefit the wildlife. We’re doing this with thought and a plan and a purpose.”



An informative sign was placed at the preserve entrance to advise visitors of the active logging operation. Fleming said the sign, along with newsletters, mailings to neighboring residents, news releases, online media and public field trips have all helped educate the public on the operation, which wrapped up in early January.

“I had some concerns up front,” said Terry DeBlaay, forester for Potlach, the logging company hired for what he thought may be a

controversial timber harvest at the preserve. “Frankly, it’s been smooth. Metcalfe (forestry consultants) and Little Traverse Conservancy did a good job of communicating it to the users.”

The conservancy also spreads its message of land conservation through field trips for local schools and hosts thousands of students annually for hikes at its preserves. Conservation easements, where development rights on private lands are given to the conservancy as a form of land protection, total in the tens of thousands of acres. For more information about Little Traverse Conservancy, visit their website at [www.landtrust.org](http://www.landtrust.org).



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# MAGHIELSE TRACT

## FAMILY RECOUNTS 70-YEAR HISTORY OF GRAYLING GETAWAY



It was Labor Day weekend of 1977 and Karen and Tom Fiebig were having a cookout with friends at their family camp on the Au Sable River. As the men stood around the grill watching chicken cook, Tom's eyes fell on the darkening sky.

"It formed over Sand Hill Lake a mile north of us," Tom recalled of the storm. "I'm watching the rain go straight sideways. All of a sudden, a big oak tree landed on my car. It was like a tornado outside – the noise, the black, the water."

In two terrifying minutes the storm was over and the group, huddled in the cabin for shelter, stepped out the door to survey the damage. "When I came back outside the chicken was still cooking so we got to eat it," Tom joked.

For the rest of the property, the storm was no laughing matter. Of the Maghielse family's 1,020 wooded acres, almost half of its trees were leveled, including dozens of giant white pines whose roots were torn from the earth by the brief but punishing wind shear. "You couldn't walk on the ground," Karen said of the windswept areas where toppled trees resembled jungle gyms. "If you wanted to get through you were 15 feet off the ground walking on the trunks of trees."

Even if all three cars parked at the cabin hadn't been smashed by fallen trees – which they were – the road out was impassable. Karen's father called for help on their citizens-band radio and the National Guard responded with a firefighting bulldozer to get them out. "You could hear the trees snapping under its tracks," she said of the giant military vehicle coming to their rescue. "It looked like a house on tank treads."

In the 70-some years the Maghielse family owned the property there would be more tragedy, including at least one more destructive wind storm and a blaze that would claim the original cabin, but it's the good memories that will be the hardest to give up as the family hands the property over to the state this year.

Karen's grandfather, Peter C. Maghielse, bought the land from the Strong family in 1947, the year she was born. The Strongs owned three large, consecutive tracts on the upper AuSable River near Grayling.

"He looked all over the state for a large piece of property for hunting," she said of her grandfather. "When the Strongs decided to sell they gave my grandfather the choice of what section he liked, and he chose the center one because it was more affordable and protected by private property on both sides."



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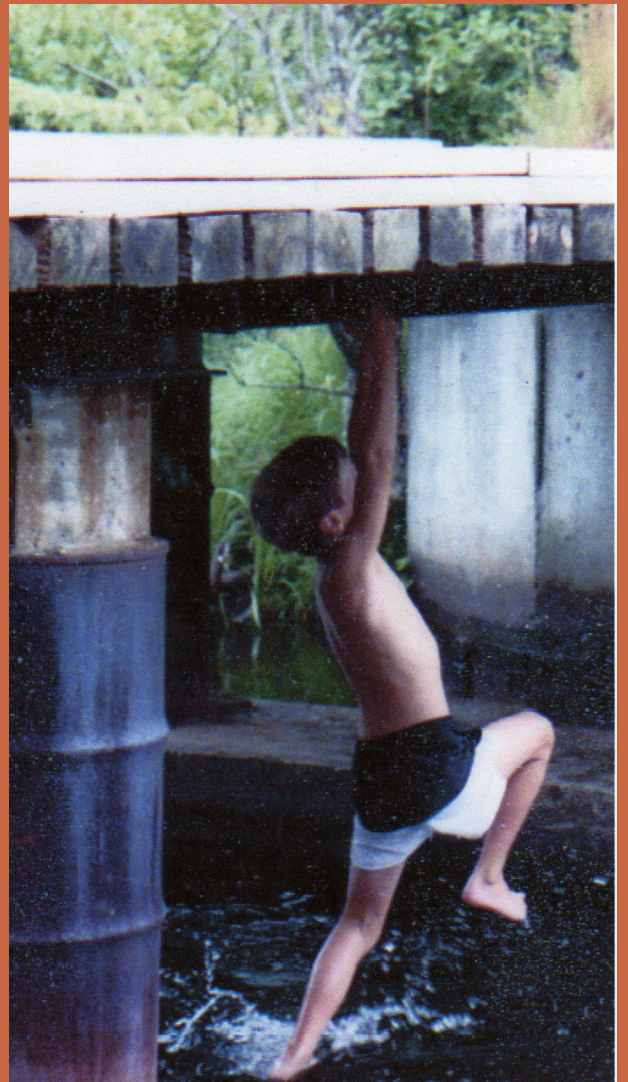
**“A DEER COULD ACTUALLY BE BORN THERE AND LIVE ITS ENTIRE LIFE WITHOUT HAVING TO LEAVE, THAT’S HOW DIVERSE THE FORAGE IS,”  
KAREN SAID.**

From then on, the property was a popular retreat for Maghielse’s children, grandchildren and great-grandkids who hunted, fished and explored the land on four-wheelers. Karen said the head mounts of several big bucks taken off the property adorned the knotty-pine interior of the original cabin, and remembers her granddad hoisting her up to the mounts so she could pet them as a kid.

Forest-management plans on the property throughout the years have favored wildlife habitat, including cuts to regenerate aspen and, most recently, the planting of perennial rye and chicory food plots for deer and turkeys. “A deer could actually be born there and live its entire life without having to leave, that’s how diverse the forage is,” Karen said. Tom applies for a bear tag annually and said, four years ago, he was able to identify 12 different black bears in photos on his trail cameras. The land is also home to beaver, otter, porcupines, bobcats, rabbits and grouse.

The western half of the property boasts tall, rolling hills. To the east remains a grove of old-growth white pines that both Karen and the Department of Natural Resources say rival those of nearby Hartwick Pines State Park.

Along the river is about 40 acres of cedar trees so dense that it is inaccessible to deer which browse on tender, young cedars. The fortress of adult trees harbors naturally regenerating cedar, something that is incredibly rare in the Au Sable River region.





## **“IT’S BITTERSWEET SELLING IT, IT REALLY IS, BUT IT’S SO NICE THAT IT’S GOING TO STAY TOGETHER FOR EVERYONE TO APPRECIATE,” KAREN SAID.**

Kerry Wieber, forest land administrator for the DNR’s Forest Resources Division, said the purchase of the Maghielse property was awarded a \$3 million grant from the Natural Resources Trust Fund in 2016.

The 1,600-acre MacArthur property to the north was purchased by the state in the late 1980s; and the 737-acre Williams tract to the south was bought in the early 1990s. Wieber said the state made a bid to buy the Maghielse tract around that time but the family decided not to sell. Now they’re ready, and the sale will finally reunite all three giant parcels under one owner – this time, the people of Michigan.

Once the sale goes through, the DNR will inventory and map the property before determining specific uses for the land, including the extent of motorized and non-motorized use. That process will likely include input from the public, according to DNR unit manager Susan Thiel, who said the MacArthur, Maghielse and Williams tracts could all be rolled into one management area.

As for the existing cabin, past acquisitions have usually involved the demolition of structures to reduce liability.

“It’s bittersweet selling it, it really is, but it’s so nice that it’s going to stay together for everyone to appreciate,” Karen said. “All the families (MacArthurs, Williams, Maghielsies) had the same idea for their lands. It was so nice to have it for hunting and fishing but, when we weren’t able to do it any longer, we wanted to let all people hunt and fish it. I guess we all believe in public land.”



This publication was funded in part by the Great Lakes Fishery Trust.

# MAGHIELSE TRACT

## 1,000-ACRE MAGHIELSE ACQUISITION PART OF LARGER DNR LAND STRATEGY

**'IT MAKES SENSE FOR US TO HAVE A FOOTPRINT IN THE RIGHT AREAS'**



The state's planned purchase of the Maghielse Tract, prized for its upper reaches of the Au Sable River and rare, old-growth forest, comes on the heels of a 600-acre sale of public land destined to become the site of a particle-board manufacturing plant near Grayling.

The move is part of an effort by the Department of Natural Resources to consolidate its land holdings, swapping areas with little use in favor of property with high recreational value – in this case, 1,020 private acres of forest and stream sandwiched between two popular public tracts flanking the Au Sable River.

Kerry Wieber, forest land administrator for the Department of Natural Resources' Forest Resources Division, is overseeing the pending \$3 million acquisition with the state's Natural Resources Trust Fund.

Just a year ago, the state sold 600 acres of land abutting Grayling's industrial park to ARAUCO, a manufacturer of sustainable particleboard, which is building a new plant on the site. Wieber said that parcel was identified as surplus property in a Memorandum of Understanding with Grayling Township and the Crawford County Economic Development Partnership in 2000.

"We're still selling parcels that were identified in that process," Wieber said. "It makes sense for us to have a footprint in the right areas."

Trust Fund acquisitions use royalties from the sale or lease of state mineral rights. They favor private parcels adjoining or surrounded by public land – called "inholdings" -- or areas that offer access to rivers, lakes or unique natural features.

Revenue from the sale of public lands goes into the Land Exchange Facilitation Fund which, according to the DNR website, is used to acquire additional lands to replace those sold. Most public lands were tax reverted at the turn of the century or during the Great Depression era. Proceeds from the sale of land initially bought with the Trust Fund go back into the Trust Fund.

Ahead of buying the Maghielse Tract, Wieber made a strong push to inform the local governments of Crawford County and Frederic Township of the acquisition. Both the county and township boards backed the purchase with letters of unanimous support.

David Stephenson chairs the Crawford County Board of Commissioners. "In our discussion with the DNR they were very upfront with us, met with the county and township several times to explain the process and what the outcome would be," he said. "The key parts were that it would open that 1,000-acre parcel to the public with the restrictions of any state property and they assured us the county and township would receive the same amount of taxes as we would if it were purchased by a private individual. It's a win-win for everyone."

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# “MORE LAND FOR PEOPLE TO ENJOY IS A GOOD THING.”

The Maghielse Tract, also known locally as the Upper Au Sable River Property, is split into two halves by more than a mile of the upper Au Sable River. Wieber said the eastern half has a stand of old-growth trees which rival those of nearby Hartwick Pines State Park.

To the immediate north of the tract is the 1,640-acre MacArthur property; to the south lies the 737-acre Williams tract, both of which are publicly owned with river access.

Karen Harrison is president of the Mason-Griffith chapter of Trout Unlimited and lives upstream from the Maghielse property. She said the stretch is canoed regularly by locals and will tell you – with a wink and a nod – that there are no fish in this part of the river.



“We have done some surveys looking at where fish are spawning and it is a spawning area,” Harrison said. “It’s as diverse as a lot of other parts of the river.” She feels the acquisition will improve access to the river and benefit the economy of Grayling as a whole.

“The economy here is based on recreation,” Harrison said. “More land for people to enjoy is a good thing.”

That idea was shared by Traci Cook, executive director of the Grayling Regional Chamber of Commerce, who said more recreational opportunities for residents and visitors to the area leads to more dollars spent on overnight stays, meals at restaurants, shopping at retailers and patronage of local businesses. Outside of the numerous canoe liveries and fly shops, many of Grayling’s businesses pay homage to the river by name, signage and décor.

“The more opportunities that are available to our community, the healthier and more active we will be as a whole,” Cook said, noting she plans to hike the property when it opens to the public, which is expected to happen in late 2017 or early 2018.



This publication was funded in part by the Great Lakes Fishery Trust.

# FORESTRY AT PARMALEE BRIDGE STATE FOREST CAMPGROUND



## THE DECISION TO CUT DOWN

large numbers of trees in a remote public campground is one that's not made lightly, no matter how necessary or common of a practice it is.

Staff with the Department of Natural Resources (DNR) announced in November that more than a third of the trees at Parmalee Bridge State Forest Campground near Luzerne would be removed during the winter of 2017 in an effort to thin a mature red-pine plantation and cull older hardwoods that are becoming increasingly hazardous to people who camp there.

Joan Charlebois is the forester for the Grayling DNR office overseeing the timber harvest at the rustic, 7-site campground on the AuSable River in Oscoda County. She's laid the groundwork for the project, including using orange paint to mark trees to be cut. As of late November, she was waiting for final review by her department before bidding the job out to local loggers. Cutting was expected to start after late December.

"We know harvesting (trees) at recreational sites is a challenge," she said, "but we want to have healthy, dominant trees in the campground for aesthetics and safety."

Sitting on land formerly owned by Consumers Energy, the campground area was acquired by the state several decades ago, Charlebois said. An 18-acre plantation of red pines in rows was planted by the power company in 1954, and the campground sits on about two acres of that plantation.

Charlebois explained how trees are initially planted close together in a plantation then, as the trees mature, regular thinnings ensure remaining trees have enough light and soil to thrive. This process hasn't happened at Parmalee Bridge campground, and trees in the plantation vary in size from a foot in diameter to just a few inches.



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# “WE DID A THINNING YEARS AGO BUT COMPLETELY AVOIDED THE CAMPGROUND.”



“The plantation thinning ten years ago deliberately excluded the campground in order to not impact that recreational facility. Despite our good intentions, avoiding thinning around the campsites wasn't good for the long-term tree health there. We're going to have more and more of those trees become hazards unless we manage it.” One third of the trees in the pine plantation will be cut, Charlebois said. Cutting of red pines within the campground itself will be slightly more aggressive at 36 percent, though many of these trees are either stunted, riddled with “hardware” – nails, screws, wires or hooks used to secure tents or clothes lines – or severely hatchet-damaged.

In addition, numerous hardwood trees will be removed, including oak trees suffering from age-related oak decline, or very large trees leaning dangerously over campsites. In some cases, healthy trees will need to be cut to clear space for larger trees to fall and for logging equipment to get through. A canoe-in only portion of the campground nearer to the river will not be cut, according to Charlebois.



Susan Thiel is the Unit Manager for the DNR's Grayling Forest Management Unit. She said much of the landscape around Grayling and to the east was disturbed via historical logging and wildfires during the late 1800's and early 1900s, leaving new trees to sprout and creating much of the forests we see today. This means unless a subsequent disturbance or harvest has occurred, many of the mature trees on our current landscape are 100-110 years old, and are reaching their maximum life span on our typical poor sandy soils. Timber harvests help regenerate and renew these stands.

In addition, foot and vehicle traffic at campgrounds compacts the earth around roots, putting added stress on aging trees. “We're starting to see high rates of mortality in our campgrounds and it's something we expected,” Thiel said. A cutting at Jones Lake State Forest Campground in northeast Crawford County a few years ago removed all the old oaks but preserved the overstory pine and young understory. The equestrian campground on Four Mile Road near Grayling was “essentially clearcut” this winter, according to Thiel. In both cases, live oak stumps left behind will generate new oak shoots, and scattered replanting is planned. In addition to age-related decline, Thiel blames invasive insects and nonnative diseases for hastening the loss of Michigan's trees at campgrounds and elsewhere.

“We are losing our tree diversity because of insects and diseases,” she said. “Diversity is how nature has responded and withstood (gradual changes), but invasives move so quickly that nature can't adapt.” She said cooperative efforts between the DNR, Huron Pines and the U.S. Forest Service have helped with eradication efforts on private property abutting public lands, as well as informing the public on how to prevent the spread of diseases. “Invasives don't respect property boundaries and that's where the cooperative efforts have come in,” she said. Cutting at Parmalee Bridge will be completed in time for the opening of the campground spring 2017.



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# PRIVATE FOREST STEWARDSHIP

THROUGH COLLABORATIVE PARTNERSHIP

## YOU DON'T HAVE TO RESIDE ON YOUR PROPERTY TO BE AN ACTIVE LAND STEWARD.



David and Maureen Sanders, owners of a beautiful 80-acre piece of land in Ogemaw County, can attest to that. David lives in southern Michigan but he frequently visits the property for recreation and allows friends and neighbors to use the land for hunting, bee keeping and tapping his sugar maple trees. There are no buildings on the property but that doesn't mean there isn't a lot going on there. David and Maureen happily bought the property in 1994 and immediately wanted to do their best to care for it well. David reached out to Mieka Rueger with the USDA-Natural Resources Conservation Service (NRCS) and district forester Laura Freer for advice.

## THE NRCS PROVIDED COST-SHARE FUNDING

that allowed David to develop a Forest Stewardship Plan for his land, in conjunction with Keith Martell of Martell Forestry, Inc. David's property is also certified under the American Tree Farm System, and by implementing his management plan David receives approximately \$400 in tax incentives. He also makes some money by selling timber, harvested by Weyerhaeuser, of which about 30 acres has been selectively cut and 5 acres clear-cut with the goal of improving forest resilience and wildlife habitat in accordance with his forest stewardship plan. David has also reached out to Huron Pines for technical advice on streambank erosion and invasive plant issues.

"I've been very happy with the services I've received from everyone—the NRCS, the Conservation District, Martell Forestry, Inc., Weyerhaeuser, and Huron Pines," David says. "It's been a great opportunity to meet many really good people and I would recommend to any landowner to reach out to these folks for advice and assistance."

David says he and Maureen do not plan to build a house or live on their Ogemaw County property, which features open prairie, lots of maple-beech forest, a small stream and a fair amount of wetland and riparian habitat. He wants to leave the property in a natural condition in order to preserve the scenic views, quiet areas, and hunting and wildlife viewing opportunities it provides. His hope is to one day pass the property on to his children.



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# STURGEON IN THE CLASSROOM

BACK FROM THE BRINK, A FISH SPECIES FINDS A  
NEW PROTECTOR

Students of an environmental-science course at Onaway High School welcomed a new classmate in October: A young lake sturgeon who will serve as part research project, part class pet, and part ambassador for its species and the humans trying to save it.

For the last four years, the Black Lake-based conservation group Sturgeon for Tomorrow has headed Sturgeon in the Classroom, a unique exchange program with schools across the state that puts live, young sturgeon in the care of Michigan students. This year there are 11 classrooms taking part across the Lower Peninsula, according to Brenda Archambo, the president of Sturgeon for Tomorrow known fondly by her peers as Michigan's "Sturgeon General."



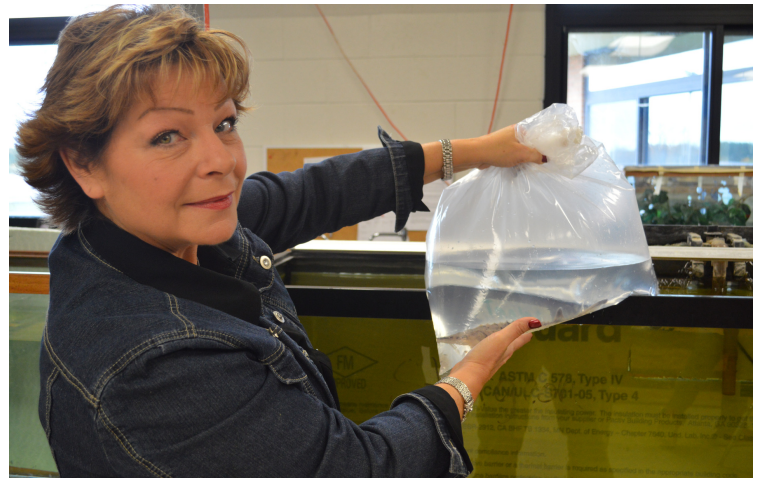
This partnership with schools is one major way for the organization to educate people about the plight of the lake sturgeon – a 136 million year old species that was nearly extirpated from Michigan a century ago by overfishing – and the ongoing conservation efforts to restore the local population.

Those endeavors include a streamside sturgeon-rearing facility on the lower Black River a few miles west of Onaway. There, tiny larval sturgeon that are captured from the river in spring are raised to about 10 inches in length, before being released back into the river with a better chance of survival.

The Sturgeon in the Classroom fish are part of the effort and Archambo brought one of those fish to Onaway High School in October (pictured at right).

"It's so cool to see students build a relationship with this animal then have to set it free," Archambo said. "There's a lot of emotion in the hearts and minds of students and they build a connection with the animal as a species and a relationship with the river."

To participate, teachers must first submit an application and meet strict criteria for how they will incorporate their fish into a lesson plan. Classrooms are responsible for providing a 55-gallon tank, and students have to maintain water quality and feed the growing fish with tiny blood worms.



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# “WE DO EVERYTHING FOR THE FISH – WATER CHANGES, WATER QUALITY, AND FEEDING IT,” - REBECCA POCHMARA

Onaway teacher Scott Steensma has taken part in the program every year and the juvenile sturgeon is a welcome addition to his zoo-like classroom that's already home to a snake, tarantula, hedgehog, hamster, and numerous trout and turtles.

“Our students really benefit from taking care of (the sturgeon) and making sure it has everything it needs,” Steensma said. “They learn how to do water quality testing and make sure the nitrates and ammonia levels are where they need to be. We also do tours for other classes within our school as well as for people in our community.”

Steensma took the extra effort of collecting the aquarium water directly from the Black River, the sturgeon's natal stream, with the idea that the fish will thrive best in an environment most like home.

This is the third year that junior Rebecca Pochmara has cared for a sturgeon at school. “We do everything for the fish – water changes, water quality, and feeding it,” she said. “The only time Mr. Steensma needs to worry about it is during school breaks when we're off.” Cheyenne Doan is also a junior spending her third year caring for the fish. She said there's an emotional attachment that forms between students and the fish after raising it for 9 months then releasing it into the wild.

In October, as the young sturgeon acclimated to its new tank, Archambo explained to the class the juxtaposition around the fish as it relates to the surrounding community.

“We're trying to save the fish from extinction but, at the same time, fishing for them is so engrained in the local culture,” Archambo said, explaining the weekend in February when a handful of sturgeon are speared on Black Lake. “It seems like an oxymoron but this is the way it works.”

By the end of class the day the sturgeon arrived, “Glacier” was leading the polls in what the class would name their newest pet.



More information about Sturgeon for Tomorrow and its programs can be found online, [www.sturgeonfortomorrow.org](http://www.sturgeonfortomorrow.org).



This publication was funded in part by the Great Lakes Fishery Trust.



# UPPER BLACK RIVER COUNCIL

## UPPER BLACK RUNS DEEP WITH CAROL ROSE

**MANAGING THE UPPER BLACK RIVER MEANS DOING WHAT'S BEST FOR BROOK TROUT. IN 1993, AN ANGLER AND RIVER ENTHUSIAST NAMED BUD SLINGERLEND SAW DIMINISHING RETURNS IN HIS TROUT-FISHING TRIPS ON HIS FAVORITE STREAMS IN MONTMORENCY COUNTY.**

"He fished the river for years and saw its condition deteriorating because of beavers and a lack of management," Carol Rose said of the late fisherman.

Singerlend, a charter member of the Montmorency County Conservation Club, got some people together to turn things around for the Black. The Upper Black River Council (UBRC) was formed and Rose, who lives northwest of Hillman in Montmorency County with her husband, Paul, has chaired it since 2008. "I love this river," she said. "It's been a part of my history since before we moved here."



**WITHOUT A MEMBERSHIP PER SE, THE UBRC INSTEAD FUNCTIONS AS A PARTNERSHIP BETWEEN GOVERNMENTAL AGENCIES, NONPROFITS, AND INDIVIDUALS THAT CAN PROVIDE RESOURCES AND MANPOWER TO RESTORATION PROJECTS IN THE WATERSHED.**

Road commissions, fish biologists, private landowners and conservation groups have all gotten their feet wet – literally and figuratively – in projects on the Upper Black River.

"We've been able to fund a seasonal summer river crew to do instream habitat work – adding large woody debris and cutting pathways through blowdowns – to enhance angler satisfaction," Rose said. "Our focus has been doing what's best for the brookies and the habitats where they thrive." The Black differs from other area streams in that it is managed exclusively as a brook trout fishery. "There are no brown trout in Black Lake and, even if there were, there are two big dams on the Lower Black River that prevent fish passage (to the upper river) anyway," said Tim Cwalinski, fisheries biologist for the DNR. "It's been isolated in that way to only hold brook trout."



Cwalinski said the upper Black River supports a mostly daytime, high catch rate brook trout fishery for anglers. If brown trout were to be stocked there they they would quickly outcompete and prey upon the native brook trout.

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# IN LATE OCTOBER, CWALINSKI TOURED A STRETCH OF THE RIVER AND MADE NOTES OF WHERE FUTURE IN-STREAM HABITAT WORK SHOULD BE CARRIED OUT BY UBRC'S SUMMER WORK CREW – IN PARTICULAR, THE AREA OF KING'S BRIDGE NORTH OF ATLANTA.

## WHILE SOME PROJECTS HAVE CENTERED ON PUTTING TREES AND BRUSH IN THE RIVER, OTHERS ARE AIMED AT UNDOING WHAT THE BEAVERS HAVE DONE.

Second only to humans in their ecological impact, beavers can enact huge changes in their landscape by building dams that impede fish movement and cause cold upstream habitats to warm.

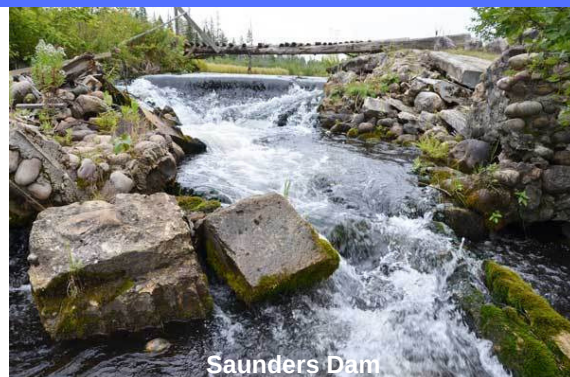
"This year we removed a huge beaver dam that reached a point where it was creating a large impoundment," Rose said. "A couple of our active volunteers took out part of it well in advance of our work bee day, when we removed the rest of the material. We weren't releasing a massive amount of sediment with it because the water had already had an opportunity to drain." Ongoing trapping keeps the beaver population in check.

In 2013, UBRC was part of a coalition to remove the concrete ruins of Saunders Dam that had obstructed the river for 60 years with its 5-foot cascade of fast-flowing water. The dam was first to go when the 517-acre property was bought by the state and numerous partners took part – including UBRC, Huron Pines, Treetops Resort, Jay's Sporting Goods, Headwaters chapter of Trout Unlimited, HeadWaters Land Conservancy and Little Traverse Conservancy, J&N Construction, Pigeon River Country Association, the DNR and U.S. Fish & Wildlife Service, and a dozen individuals. "That was an example of how empowering these projects can be and how everyone can share in the success," Rose said. "It's redeeming to see structures that no longer have a purpose being taken out. The river is still in the process of healing itself and rebuilding."

Rose said a recent effort on Rattlesnake Creek, an upstream tributary of the Black, created new riffles for fall brook trout spawning beds, called redds.

"We had mountains of cobble, stone and pea gravel and had three different work bees where we were schlepping rocks and gravel 75 yards from the piles to the creek," she said. "When I went back in October the year we did it, sure enough I saw brook trout on redds at two of the three riffles we'd made."

More information about UBRC can be found online, [www.upperblack.org](http://www.upperblack.org).



Saunders Dam



Saunders Dam site after Dam Removal



This publication was funded in part by the Great Lakes Fishery Trust.

# VANDERBILT STUDENTS FIND 'OUTDOOR CLASSROOM' ON SCHOOL PROPERTY

A NEW TEACHER AT VANDERBILT HIGH SCHOOL IS MAKING IT HIS MISSION TO PUT HIS STUDENTS TO WORK ON THE LAND.



Matthew Saunders has taught science at the small school with a little over 100 k-12 students since January 2016. He lives with his wife in Petoskey where he gardens and plants trees on the 16 acres where he grew up.

The school sits on 80 acres on the east side of Vanderbilt and the land has a long history of harvesting by loggers and replanting by students, including a hillside pine plantation in the spring of 2015 with the Otsego Wildlife Legacy Society.

Young stands of aspen and sprawling wild raspberry patches have also sprung up since the last clearing several years ago, making it a popular place for deer and other wildlife whose tracks litter the sandy soil all over the property.

"As a school we've made it a focus to get our students out in the woods more," Saunders said during a morning walk on the property in October 2016.

**"MY GOAL IS TO GET THEM OUT HERE ONCE A WEEK."**

Field trips on the property have been made easier since a work day this fall had students in all grades clearing old trails and planning new ones. Shorter and longer loops cover gently rolling terrain that alternates between young pine and deciduous forest, pockets of older trees, berry-choked cut-overs and grassland.

On their walk in late October, fourth- and fifth-grade students found flowers, identified deer and dog tracks, and poked scat with sticks as they debated what kind of animal it came from.

"We collect leaf specimens to identify later in the year and we've talked about having older kids do plaster casts of animal tracks, having math classes mapping the property on a grid, and making trail markers and interpretive signs in the wood shop here," Saunders said. "The kids really seem to like it and that's the main thing. We're trying to treat it as an outdoor classroom for them."



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# "It's all centered around getting kids outside"

-Jennie Zoll, Program Manager for Huron Pines.

Huron Pines, a nonprofit conservation organization in Gaylord, has been assisting the school with a forest study to determine ways to fit the land into the curriculum there. They are working through the Northeast Michigan Great Lakes Stewardship Initiative (GLSI) which aims to help schools provide place-based environmental education for their students.

Zoll said a GLSI effort in Onaway had students identifying erosion sites on the Pigeon River, doing science experiments in the field, and ultimately finding solutions to the erosion problem.

"They really took over the problem, figured it out and solved it," Zoll said of that effort. "(In Vanderbilt) they have a lot of really great ideas for their forest."

The town of Vanderbilt is known as the gateway to the Pigeon River Country State Forest, a sprawling tract of more than 100,000 acres of contiguous public land that's home to three rivers and the state's wild elk herd of 1,000 animals.

This proximity to such wild country is reflected in the lifestyle of Vanderbilt students, many of whom are avid hunters.

"The acreage here gives us a great opportunity for some hands-on learning," said principal and superintendent Rick Heitmeyer. "It fits our students' lifestyle pretty well."

More information about Vanderbilt Area School and its activities can be found online, [vanderbiltareaschool.org](http://vanderbiltareaschool.org).



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# WHERE WOODS AND WATERS MEET

## RIPARIAN STEWARDSHIP PROTECTS CLEAN WATER AND WILDLIFE IN THE PIGEON RIVER

Standing on a streambank overlooking the Pigeon River, landowner Travis Piper shares his desire to improve fishing opportunities and enhance wildlife habitat with a restoration project manager from Huron Pines, a nonprofit organization working to conserve the forests, lakes and streams of Northeast Michigan. Together, they identify concerns on the property—streambank erosion and a lack of instream cover—and sketch out a project plan to meet the landowners goals while doing right by the river.

In 2013 Huron Pines helped design a sod dock, instream habitat structures and a native plant greenbelt and prepared permit applications. Travis Piper and the Huron Pines field crew installed 30 whole trees along 600 feet of his streambank to provide fish cover and shield the bank from future erosion.



A variety of native wildflowers were also planted along Piper's eroding streambank to add additional stability and help attract birds, pollinating insects and other wildlife. To reduce erosion due to foot traffic, a sod dock was installed from which Piper now fishes and launches his kayaks.

"Hours after placing [trees] in the river we had turtles sunning themselves on the new logs and ducks hanging out in them." Piper said after the project was completed. "We had lots of dead and dying ash trees. Instead of these trees going to waste we used them for our log structures, re-purposing them where they can improve the trout habitat for years to come. We hope to continue to work with Huron Pines for our own habitat improvements, and would highly encourage private landowners to tap in to [Huron Pines'] resources to help them improve their own areas." Not long after the project was finished Piper also noted that he believes fishing has already improved.

The project incorporated several "bioengineering" techniques—practices for reducing erosion and enhancing wildlife habitat that use organic materials to help preserve the aesthetic appeal of the natural river corridor. Using trees for erosion control looks more natural than rock rip rap or other hard structures and is more effective at slowing the water and trapping eroding sediment. They also make it easy for turtles and amphibians to access streambanks and the tree trunks and branches provide valuable overhead cover for brook trout and other fish.

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# SO WHY ARE WE INSTALLING INSTREAM HABITAT FOR FISH AND OTHER AQUATIC WILDLIFE IN NORTHERN MICHIGAN STREAMS?

Doesn't nature take care of that on its own? The short answer to these questions is that historical logging practices, land use change and clearing of woody material from stream channels for navigation have led to a scarcity of this key habitat feature compared to historical conditions. Large wood provides refuge for fish, substrate for aquatic insects, keeps streams cool by providing shade, benefits a wide variety of terrestrial animals, and promotes diversity of stream flows and depths.

Native plant greenbelts, tree revetments and sod docks help stabilize eroding streambanks and keep excess sand and soil out of the stream channel, where it can bury exposed gravel used by spawning fish and many aquatic invertebrates. Private land stewardship activities like those implemented by Travis Piper and Huron Pines will be critical for sustainable protection of our unique freshwater and forest resources in Northern Michigan, which we all rely on to provide clean water, support food production and provide world-class tourism and outdoor recreation opportunities.



This publication was funded in part by the Great Lakes Fishery Trust.