



Field Notes
from **Michigan**

For Members of The Nature Conservancy in Michigan

Spring 2021 Newsletter

The Nature
Conservancy



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LISTEN & LEARN: AUDIO TOURS NOW AVAILABLE FOR TNC PRESERVES

Connect with nature by exploring a TNC preserve—in person, or from the comfort of your home! Audio tours are now available at:

- Nan Weston Nature Preserve at Sharon Hollow,
- Ross Coastal Plain Marsh Preserve,
- Echo Lake Nature Preserve,
- Carl A. Gerstacker Nature Preserve at Dudley Bay,
- and three more coming soon!

ONLINE

To access the tours and learn more, visit nature.org/miexplore!



COVER: Gray tree frog. © Lorne Field /TNC Photo Contest 2019; ABOVE: Dune blowout at Ross Coastal Plain Marsh Preserve. © Jason Whalen/Big Foot Media; RIGHT: Newly hatched common loon chicks catch a ride with their parent. © Jeremy Gray /TNC Photo Contest 2019



From Water to Wildlife

Together in Nature

The final numbers are in! Thanks to our incredible supporters, The Nature Conservancy's recent [Michigan campaign](#) raised and invested over \$106 million for conservation—a huge win for people and nature, made possible by you. Thank you!

In this newsletter, you'll read how TNC is continuing to invest in protecting the health of Michigan's vital forests, waters, coasts and climate—taking bold steps to achieve the tangible results we're known for.

For example, these pages show how TNC's work to sustain healthy forests also has important climate implications and benefits for wildlife, while our work to protect water quality in Saginaw Bay also supports our food systems and all of us who rely on them.

These connections—between people and nature, science and sustainability, conservation and solutions, and the impact

of our actions now with the future we envision—are the heart of TNC's work. Your dedication to conservation is also one of these vital connections, as it is your generous support that helps TNC take conservation in Michigan to the next level.

As you read this update on our work, we hope that you are proud of the tangible results you are making possible. Nature is central to addressing the most significant challenges facing the world today, and we feel honored and invigorated to do this work in partnership with you.

Yours in conservation,

Helen Taylor



Helen Taylor
State Director



**\$106
MILLION!**



A Moose Paradise

Deep in the heart of the Upper Peninsula, where rivers are born and conifer trees grow tall, lie the Michigangamme Highlands. “It’s one of the most rugged, remote places in Michigan,” says Emily Clegg, land protection and restoration associate for TNC. The trade-off for the isolation, higher elevations and harsh winters? Some of the richest habitat for wildlife in Michigan—including the iconic moose.

Here, TNC is in the process of acquiring over 4,800 more acres of forestland this year that will expand our [Wilderness Lakes Reserve](#) to over 10,000 acres in size. With the neighboring Craig Lake State Park, this addition will create a protected area totaling nearly 20,000 acres.

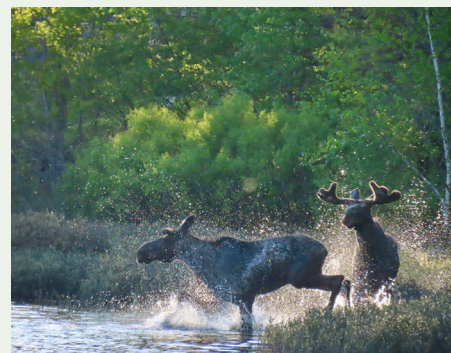
This is the scale at which notable species like the moose, black bear and gray wolf thrive.

“It’s the core of the Michigan moose range,” says Kevin Swanson, who leads TNC’s forest protection work in Michigan. Moose all but disappeared from Michigan by the late 1800s, and reintroduction efforts in the 1980s were focused here, in the Michigangamme Highlands—where moose continue to thrive today. “There’s an incredible amount and diversity of wetland types here, as well as long stretches of contiguous forest,” Kevin says. “For a moose, that’s pretty much perfect.”

Protecting places like this new 4,800-acre addition helps TNC keep large areas of forest intact, contributing to a network of resilient, connected lands at a huge scale. Over the past 10 years, TNC scientists have mapped these landscapes in the United States—and the Michigangamme Highlands show up as some of the most climate-resilient land in Michigan, where plants and wildlife have the best chance of survival. “Even in a changing climate, moose are holding their own in this area because of the variety of topography and the resilient characteristics of the land. We’re not seeing the population crashes that other places are experiencing,” Kevin notes.

In addition to providing safe places for nature to thrive, the growing network of protected lands here also offer benefits to people, including economic income through outdoor recreation and education, sustainable forestry, and carbon sequestration to mitigate climate change. By expanding TNC’s Wilderness Lakes Reserve, and undertaking management practices to improve the health and condition of the forest, TNC will also be able to expand the reserve’s capacity to store an anticipated 138,000 extra metric tons of carbon equivalent over the next 10 years.

Protecting these lands means that TNC can help improve the condition and diversity of tree species. “It’s an area where timber was formerly harvested, so we have a great opportunity to restore forest health by increasing the species and age diversity,” Kevin says. After about a decade of letting



Expanding Wilderness Lakes: In Gratitude

Special thanks to the following for leadership gifts:

- J. A. Woollam Foundation
- Robert & Catherine Anthony
- Karen & Donald Stearns
- Dr. Franklin E. Hull

TOTAL PROJECT COST: \$4.9M

REMAINING NEED: \$2.5M

the forest regrow on its own, TNC will begin further restoration and management of the land to improve and support the health of the forest, helping to protect the region’s unique natural heritage.

“The wildness of the landscape, the connectedness of the forest here—it’s just incredible,” says Emily.

Here, bears emerge from winter dens to find rivers full of brook trout, and the tracks of wolves mark their passage across an enormous range. And, if you make your way to the Michigangamme Highlands, look along the lakes, streams and wetlands where moose like to browse for plants like the pond lily. You might just see a moose raising its heavy head to look back at you.

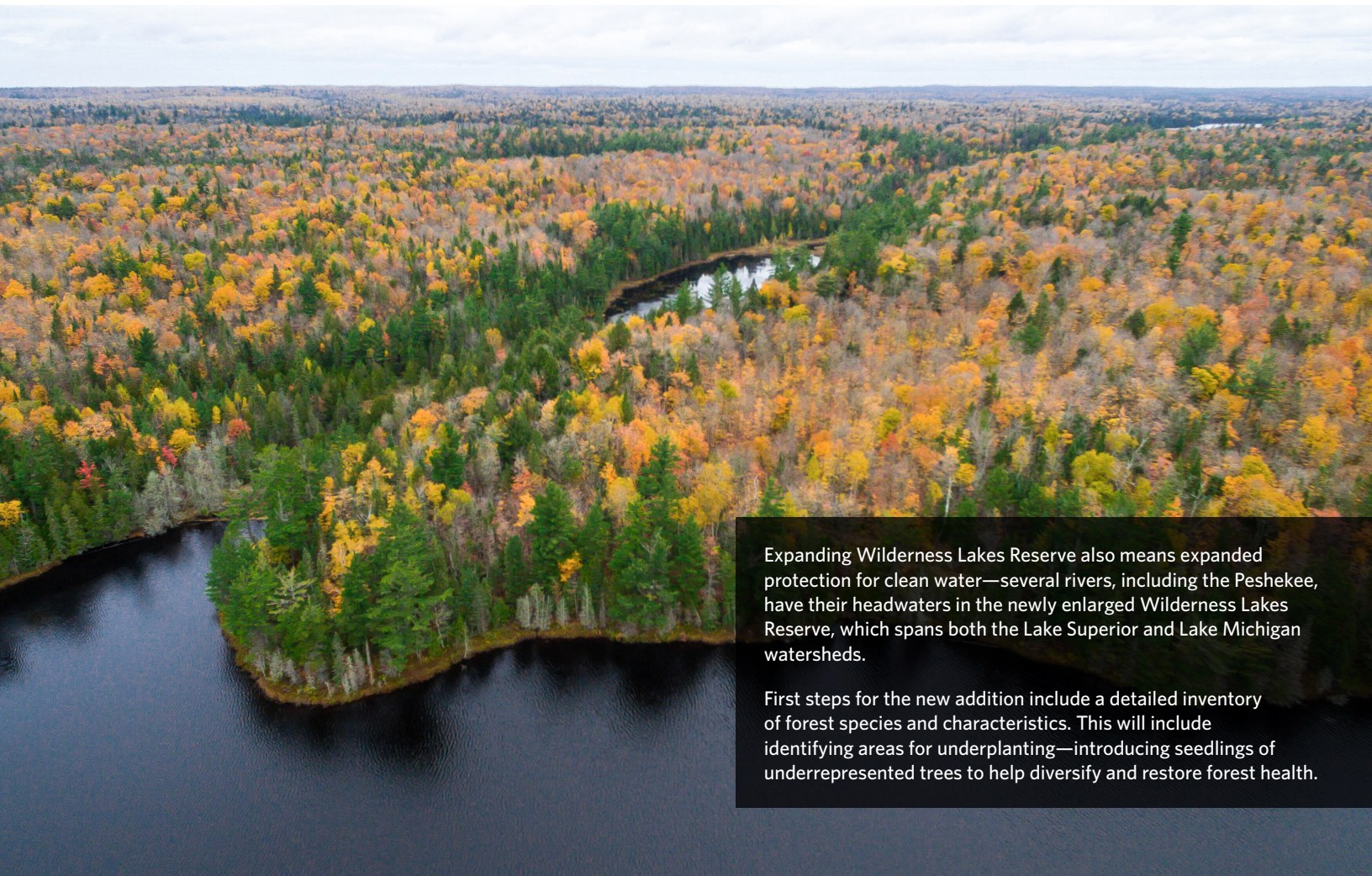


A WILDERNESS ENCOUNTER

A hiker at Wilderness Lakes Reserve shared this story with TNC:

“It was around 2 p.m., and I was hiking up around the west end of Loon Lake. There was a big bull moose coming my way through the snowy woods, with antlers as wide as my outstretched arms. He stopped, saw me as danger, and turned to move off and away. I continued on another few hundred yards and noticed what I thought was a herd of deer coming my way. They were closing in fast, and as I watched, they transformed into, not deer, but ... wolves! There were maybe 10-12, with the leader well ahead of the majority and flanked by two other large wolves. They came to a halt about 20 steps from me, and the leader locked on me like a German Shepherd that’s just noticed a cat. I stood up tall and held

my hands high and yelled at them. The wolves in the rear nervously retreated to a distance, but the leader did not flinch. I took three forceful steps toward him, yelling at him to go, but he remained locked on me. Just as I began to wonder what my next move would be, he reluctantly turned, without losing any pride in his posture, and walked confidently back to his pack. They then proceeded to move off to my side and into the brush. Whew!!! I hadn’t felt any fear or emotion before, but now it came rushing in and my heart began to race. I turned and walked back the way I had come ... glancing nervously over my shoulder as I went!”



Expanding Wilderness Lakes Reserve also means expanded protection for clean water—several rivers, including the Peshekee, have their headwaters in the newly enlarged Wilderness Lakes Reserve, which spans both the Lake Superior and Lake Michigan watersheds.

First steps for the new addition include a detailed inventory of forest species and characteristics. This will include identifying areas for underplanting—introducing seedlings of underrepresented trees to help diversify and restore forest health.

ABOVE: Lakes and rivers break up the dense forest. © Jason Whalen/Big Foot Media; ABOVE, INSET: A gray wolf (*Canis lupus*) during snowfall in Michigan. © Janet Haas

PAGE 4: (TOP) Forested wetland at Wilderness Lakes Reserve. © Dietrich Ludwig; (INSET, TOP) Moose at daybreak in the Michigamme Highlands. © Kevin Swanson/TNC; (INSET, BOTTOM) A moose track (lower right) next to a wolf track (upper left) at Wilderness Lakes. © Chris Cantway/TNC



Change Starts at the *Roots*

At the first farmer-led watershed group meeting in the Saginaw Valley, farmers came together to discuss soil health on a local Elkton farm—and stayed long after the planned end to the meeting. By the second meeting, less than a month later, attendance had doubled.

This enthusiasm reflects a growing focus on the importance of long-term soil health and its benefits to water quality, across Michigan’s farming heartland and beyond. TNC is helping to drive this awareness, recognizing that a sustainable future for our planet depends on clean water and a thriving food-production system.

And it all starts with science. “Right now, we’re focused on getting helpful information out there and into the hands of the people who need to see it,” says Ben Wickerham, project manager for TNC’s Saginaw Bay program.

That means, in part, connecting the right people with each other. TNC helped launch

the first farmer-led watershed group in the Saginaw Bay region in 2019, to help farmers who have used soil health practices swap ideas and success stories with their peers. Since then, we have continued to assist Michigan State University’s Institute of Water Research as they establish similar groups in the area.

It also means extensive research—from working with MSU researchers to study the impacts of strip-till practices on sugar beet farming; to bringing the national, farmer-led [Soil Health Partnership \(www.soilhealthpartnership.org\)](http://www.soilhealthpartnership.org) to Michigan to connect corn farmers with localized data.

“There is so much region-to-region variation in growing conditions caused by weather patterns, soil types, topography and so forth, that results from other places are all but meaningless to farmers,” says Ben. “We need to see data for Michigan crops, grown in Michigan soil.”

TNC started [our work in the Saginaw Bay watershed](#) with programs that helped grow initial interest in soil health practices, like no-till and cover crops, by directly incentivizing their use and taking some of the risk out of the equation for farmers

shifting their management approach. We are grateful to have had the support of many donors who care deeply about the region, like the Cook Family Foundation, the Charles Stewart Mott Foundation and the Herbert H. and Grace A. Dow Foundation, which has helped us transition this work toward more long-term strategies.

“It’s about the *systems change*—helping them build a structure that they can carry on into the future.”

If the first stage of TNC’s work was about establishing the roots of the change we want to see, this next stage is about cultivating the shoots that have emerged from that beginning—sharing the visible impact of our work, our learnings and results across the Saginaw Bay watershed.

One of our first steps is surveying farmers we’ve worked with to better understand how our first five years of conservation partnerships have impacted their long-term strategies. We are also helping to launch a transformational water quality monitoring



network (see sidebar, right) that will allow us to target our work more effectively than ever before.

We will also continue to set partners up with tools for success. For example, TNC will work with Star of the West, a regional grain company, to incorporate incentive programs in the supply chain, which eliminates the need for a third party like TNC to become involved. In this way, wheat farmers will receive a bonus when they sell their product, if they used certain sustainable practices to grow it.

“Just like with the farmer-led watershed groups, it’s about the systems change—helping them build a structure that they can carry on into the future,” Ben says. “TNC is out there clearing the way, facilitating conversations and helping everyone pull together in the same direction on soil health.”

It’s a more sustainable story—from roots to leaves.

➤ SOIL LEGACY

Learn how farmers across the Midwest are thinking about the role of healthy soils in a climate-smart future: nature.ly/39NdTx4.

FROM SOIL TO CLIMATE

Another next step for TNC’s soil health work? Tracking and pursuing the carbon benefits of healthier soils, using modeling tools such as COMET-Farm. “Farmlands represent a significant underutilized terrestrial carbon sink, but there isn’t a carbon marketplace up and running yet for this sector,” comments Ben Wickerham.

“We’re seeing the trends and positioning our work, and helping our farmers and stakeholders position themselves, to be ready as future carbon markets emerge.”



COUNTING ON CLEAN WATER

Addressing concerns about harmful runoff and water quality in Lake Huron means changing how we manage the farmlands within the Saginaw Bay watershed, which spans 5.5 million acres and 22 counties, and is one of the three largest agricultural watersheds on the U.S. side of the Great Lakes basin.

But we need to know more than the impact of these practices on soil health—we need robust data on water quality results as well, so we can better target where, what and how much change is needed. However, water quality data for the area to date has been too piecemeal to measure trends or set meaningful goals for reducing nutrients and sediment in runoff.

TNC and our partners are changing all that. Together, we are putting a water quality monitoring system and tools in place that will help us all understand just how water quality is changing here—over time and at scale—with 14 new stream gauges and 17 surface water sensors planned for installation at strategic points in the watershed. This coordinated program will make comprehensive water quality data publicly available to all who need it, enable science-based decision-making for this important resource and connect farmers with information that helps them make better land-use decisions, for thriving farms and clean water.



LEFT: Ben Wickerham (middle) stands with Ryan and Melissa Shaw of SKS Farm, in a field of sugar beets that are strip-tilled to reduce erosion and keep nutrients in the soil. Photo taken in 2018.
© Jason Whalen/Fauna Creative

Where the Whitefish are—and could be!

Imagine “tremendous runs of whitefish” swimming up Michigan’s rivers to spawn, their silver backs flashing through the surface of the water. As late as the end of the 19th century, that’s what eyewitnesses described seeing in the Upper Peninsula’s Whitefish River and other Great Lakes tributaries.

Over time, this sight has been largely forgotten. Everyone knows the whitefish’s relative, the salmon, likes to return to the same rivers year after year to lay its eggs—but Great Lakes whitefish? After ongoing logging in Michigan drastically changed its spawning habitat, the whitefish, too, forgot that it had ever done the same.

Fast forward to today. Lake Michigan whitefish are in decline, their numbers half of what they were just a few decades ago. But there’s one bright spot in this trend. In Green Bay, whitefish have recently relearned to travel up tributaries like the Escanaba River to spawn—and here, they are thriving.

Now, TNC and our partners are studying whether re-establishing whitefish runs in other tributaries of Lake Michigan is a feasible way to bolster the population of lake whitefish, which remains the most important commercial fishery in the Great Lakes, and an important part of the ecosystem.

“There are drowned river mouths all up and down the west coast of the Lower Peninsula, where Lake Michigan tributaries flow into small lakes along the coastline,” says Matt Herbert, senior conservation scientist for TNC. “These lakes are full of zooplankton and provide great nursery habitat for fish.” The Muskegon River is one example of such a tributary. It also boasts high-quality



spawning habitat upstream—a 13.5-mile stretch of shallow, swiftly moving water over a rocky river bottom, previously blocked to whitefish by a dam that was removed in 1979.

In Green Bay, whitefish have recently relearned to travel up tributaries like the Escanaba River to spawn—and here, they are *thriving*.

But there’s more to restoring whitefish than just finding the right habitat. “The science has to be in place first,” Matt says. “We have to understand what the status of whitefish in these rivers actually is before we can think about restoration—we need to know that re-establishing a spawning run wouldn’t interfere with an existing population.”

In the fall of 2020, TNC staff and partners—including the Michigan Department of

Natural Resources (DNR), the Sault Ste. Marie Tribe of Chippewa Indians (Sault Tribe) and the Little Traverse Bay Bands of Odawa Indians (LTBB)—surveyed for lake whitefish in seven Lake Michigan tributaries. For the third year in a row, they found whitefish in the Escanaba River in the Upper Peninsula, which flows into northern Green Bay.

As they expected, however, the team hasn’t found a single whitefish in any of the Lower Peninsula rivers they’ve surveyed. “We’ve found sturgeon, walleye, steelhead, brown trout and many other species—but no whitefish,” says Matt.

There is growing interest in trying to restore a river-spawning run of whitefish, but confirming the fish’s presence—or absence—isn’t the only obstacle that needs to be addressed before TNC and our partners can act on that interest. To be able to return to the same spawning habitat in adulthood, whitefish need to imprint on that habitat at a very early life stage. This means any restocking effort would need to



get whitefish in the right place—in the river itself—possibly even before hatching.

“Normally, if you want to re-establish fishes, you can raise them in a hatchery, put in them a lake or river, and hope they survive and reproduce. It’s not easy, but it’s straightforward,” says Matt. “With this project, it’s a little more complicated.” Over the next two years, TNC, the Sault Tribe, LTBB and the Michigan DNR will work together to figure out the best approach.

If all the pieces fall into place, a restocking effort in a river like the Muskegon could give whitefish a place to return, year after year, that gives them a head start on survival and helps begin to reverse the recent decline we have witnessed in Lake Michigan.

“I’d love to see tremendous whitefish runs in our rivers again,” says Matt. “It’s a piece of our history that we’ve lost, and we have a chance to rebuild it.”

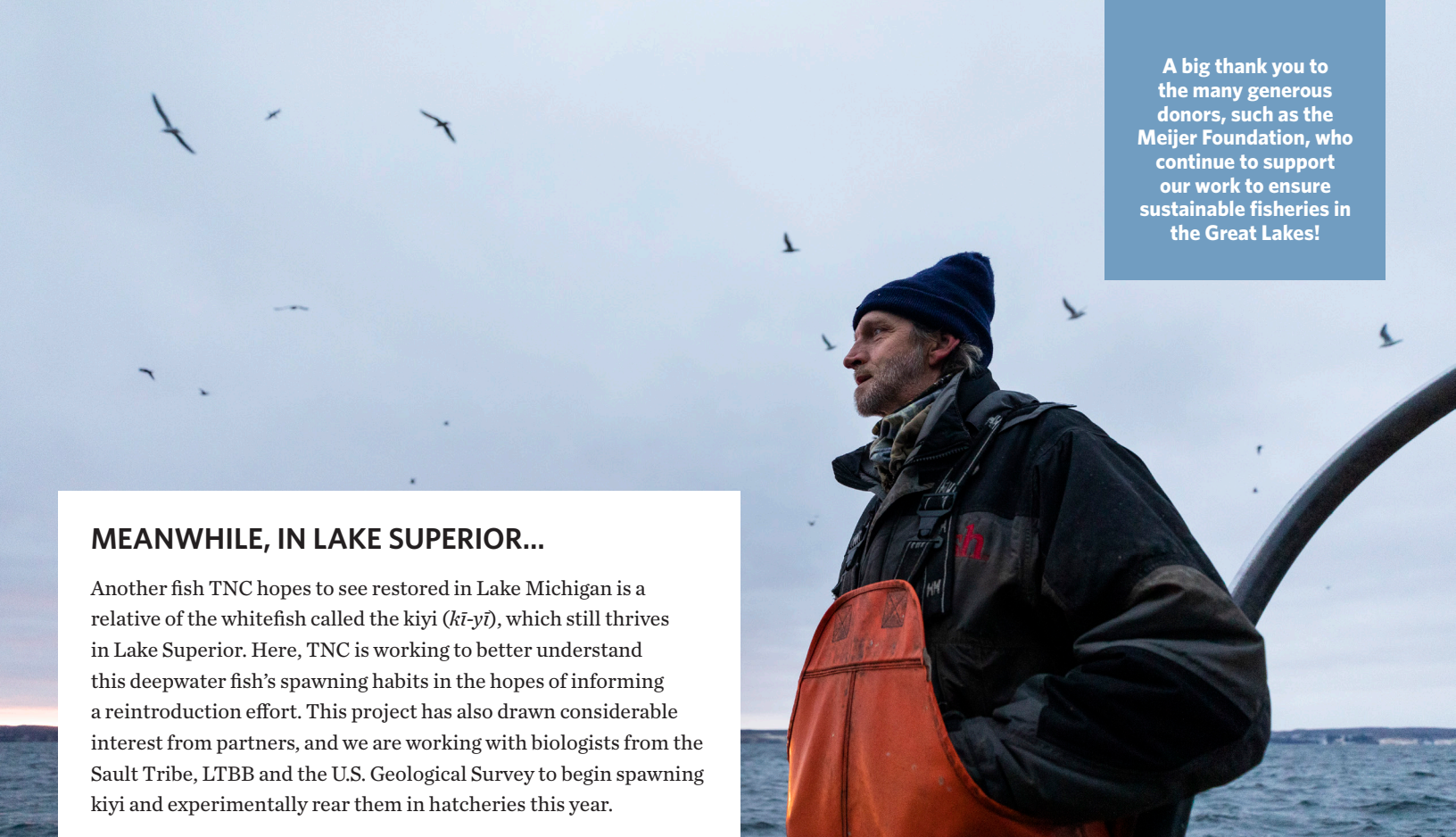
ABOVE: The silvery sides of the lake whitefish flashes the underwater camera. © Paul Vecsei



If you’ve ever been near one of Michigan’s rivers and seen a boat with two yellow poles out in front of it like antennae, count yourself lucky. You’ve seen science in action! Electrofishing boats, such as those used by the DNR, tribal fisheries agencies, TNC and many universities, enable scientists to temporarily stun and capture fish in their natural habitats. They then take measurements and genetic samples before releasing the fish back into the wild. This provides an incredible amount of data that can inform the restoration and management of key species like the whitefish.



One prevalent theory for the recent decrease in whitefish in Lake Michigan and Lake Huron is that invasive quagga mussels (similar in appearance to zebra mussels, pictured above) are consuming the zooplankton that whitefish need to eat in order to reach adult life stages. Restoring tributary-spawning populations is expected to help regardless of the cause of the decrease.



A big thank you to the many generous donors, such as the Meijer Foundation, who continue to support our work to ensure sustainable fisheries in the Great Lakes!

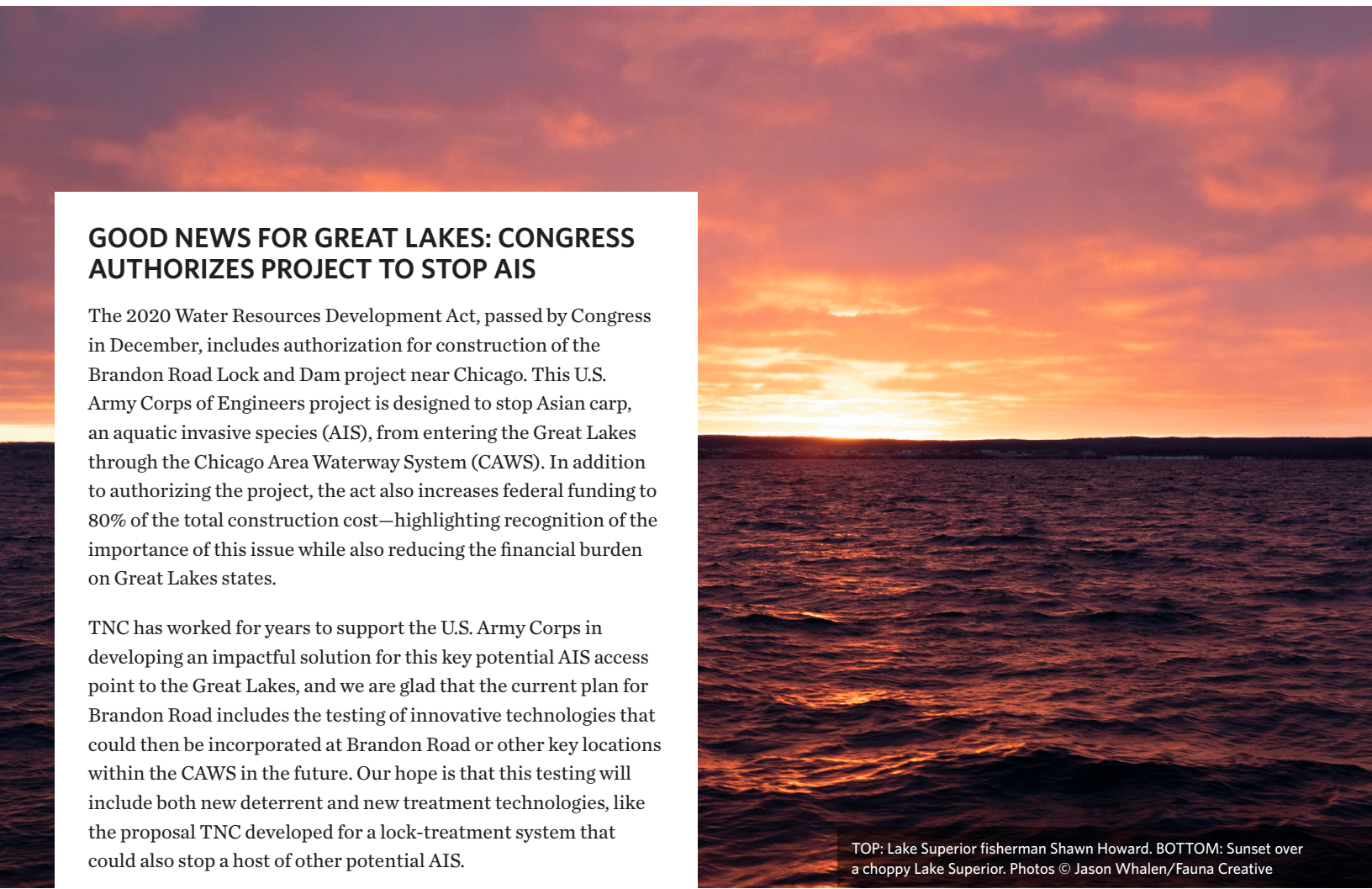
MEANWHILE, IN LAKE SUPERIOR...

Another fish TNC hopes to see restored in Lake Michigan is a relative of the whitefish called the kiyi (*kī-yī*), which still thrives in Lake Superior. Here, TNC is working to better understand this deepwater fish's spawning habits in the hopes of informing a reintroduction effort. This project has also drawn considerable interest from partners, and we are working with biologists from the Sault Tribe, LTBB and the U.S. Geological Survey to begin spawning kiyi and experimentally rear them in hatcheries this year.

GOOD NEWS FOR GREAT LAKES: CONGRESS AUTHORIZES PROJECT TO STOP AIS

The 2020 Water Resources Development Act, passed by Congress in December, includes authorization for construction of the Brandon Road Lock and Dam project near Chicago. This U.S. Army Corps of Engineers project is designed to stop Asian carp, an aquatic invasive species (AIS), from entering the Great Lakes through the Chicago Area Waterway System (CAWS). In addition to authorizing the project, the act also increases federal funding to 80% of the total construction cost—highlighting recognition of the importance of this issue while also reducing the financial burden on Great Lakes states.

TNC has worked for years to support the U.S. Army Corps in developing an impactful solution for this key potential AIS access point to the Great Lakes, and we are glad that the current plan for Brandon Road includes the testing of innovative technologies that could then be incorporated at Brandon Road or other key locations within the CAWS in the future. Our hope is that this testing will include both new deterrent and new treatment technologies, like the proposal TNC developed for a lock-treatment system that could also stop a host of other potential AIS.



TOP: Lake Superior fisherman Shawn Howard. BOTTOM: Sunset over a choppy Lake Superior. Photos © Jason Whalen/Fauna Creative



A Fresh Look at Water Policy

Water infrastructure is all around us. It's how we get our clean water and dispose of wastewater, from drainage systems in farm fields to water utilities and wastewater systems in cities. "It's an essential part of humans living on the planet," says Rich Bowman, TNC's policy director. "So, we have to make sure it's compatible with nature."

Michigan lies at the center of the Great Lakes, the freshwater heart of our country. As we look to the future and a growing list of concerns around water—including the need for equitable, sustainable water infrastructure—it is clear that Michigan will need unprecedented innovation and coordination to protect this important legacy.

This work is not new to us. In 2019, TNC conducted research on innovative water utilities around the U.S. and, with Michigan State University, convened a broad group of stakeholders as a cadre of Water Fellows to review the research, meet with water utility leaders and identify recommendations for improving access to clean water in Michigan. The generosity of the Charles

Stewart Mott Foundation and the Fred A. and Barbara M. Erb Family Foundation has been instrumental in helping us launch and build upon this important effort.

"We undertook this project and convened the Water Fellows because we knew we would need innovative solutions to solve critical issues like what we've seen in recent years," Rich says. "Our involvement in the 21st Century Infrastructure Commission, and years of working to conserve healthy aquatic systems, have made clear to us that this work is vital for people and for nature."

One of the biggest obstacles to overcome is the significant gap between revenue and infrastructure maintenance and replacement needs for Michigan's water utilities. "In many communities, local utilities can't just increase their rates, because so many residents are already struggling to pay their bills," says Rich. "So, we need some new mechanisms to create adequate streams of revenue. TNC is committed to getting that conversation going and providing the research and analysis to help policymakers find workable solutions."

And this is not just a problem in cities. For example, 30% of Michigan households—largely in rural areas—have private septic systems, and as many as 30% of those are failing, threatening clean water and the health of the families who depend on them.

One big step TNC is taking is hiring a new director of freshwater policy for our Midwest Region to lead this effort. This person will develop strategies to influence public and private policy that are just and equitable, supporting Michigan's communities, instead of overburdening them. They will also engage diverse constituencies to bring new and powerful voices forward and build collaborative, durable solutions.

"We need to make sure that whatever solution we build, we build together," says Rich.

Ultimately, it's about taking care of the Great Lakes—and our shared freshwater future.

ABOVE: Water gushes out of a downspout during a rain event. © Michael B. Maine

How to Grow a Prairie

Despite COVID-19 limitations, TNC has continued to meet ongoing restoration needs in Michigan's southern fens and savannas. This includes calling on staff and volunteers to collect prairie seeds at TNC's [Grand River Fen Preserve](#) and plant them on former agricultural fields at our [Ives Road Fen Preserve](#). It was great to get outdoors and spend some (socially distanced) time together in the sunshine!



We planted 25 acres this past December, including former agricultural fields and grasslands that had been covered with weeds. Restoring the grasses and flowers that once thrived in these areas provides native wildlife with habitat and protects the fens that play such an important role in water quality.



A few seeds or seed heads are removed from each plant by hand, leaving the majority on the plant to continue its cycle of growth. Seed collection takes place in the fall when mature seeds have begun to dry out on the plant.

© Gen O'Brien/TNC



The fall is still a very active time on the prairie—many different types of insects and birds fill the air with buzz and song, and rabbits and garter snakes find plenty of shelter in the tall golden grasses.

© Jason Whalen/Big Foot Media



Several days of seed collecting filled about nine 31-gallon plastic bins with seeds, which are spread out on these large mats to be prepared and then stored for replanting.



© Jason Whalen/Big Foot Media



© Kim Steinberger/TNC



Fourteen TNC staff and trustee volunteers helped the restoration team collect seeds from about 25 iconic prairie plants, such as gray-headed coneflowers, black-eyed Susans and big bluestem.

© Kim Steinberger/TNC



Planting takes place over the winter and early spring. We planted at Ives Road Fen Preserve this past December. Volunteers distribute seeds across the ground by hand as they walk across the planting area, while a tractor is used to “disc” the seeds into the soil behind them.

© Kim Steinberger/TNC



Upcoming Events

Tune in for our lunchtime “Nature Break” webinar series! Register online at nature.org/mievents to participate in any of these live virtual events. Can’t make it? Watch recordings of past webinars on our Facebook page (@TNCMichigan) in the “video” section.

POLICY OF CONSERVATION: THEN & NOW

Friday, April 23, 12-1 p.m. ET

As we celebrate Earth Month, join TNC to learn the important role that policy plays in the protection of our natural world. With Madhu Anderson, Director of Government Relations, and Rich Bowman, Director of Policy, hear the history of the conservation movement and TNC’s current policy initiatives.

TOUR THE GRASS BAY NATURE PRESERVE

Friday, May 21, 12-1 p.m. ET

A paradise for a multitude of wildflowers and neotropical migrating birds, TNC’s Grass Bay Preserve extends along two miles of stunning Lake Huron shoreline. Conservation scientist Doug Pearsall will take you “off the beaten trail” as you learn about the unique ecology of this stunning place in one of TNC’s popular virtual tours.

Volunteer Opportunity

STEP UP FOR NATURE AT IVES ROAD FEN PRESERVE!

Join a group of dedicated volunteers in Lenawee County this spring, by helping to remove the invasive plant garlic mustard in the forest, along the River Raisin. Enjoy the sights of woodland wildflowers and sounds of herptiles while giving back to nature! As a volunteer, you’ll experience parts of the preserve that most visitors never get to see. Groups meet every Saturday from 9 a.m.-12 p.m. in the months of April and May.

To participate, contact Chuck Pearson at ivesroadfen@gmail.com or call (615) 500-8229.

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Membership Care

Phone: (800) 628-6860

Email: member@tnc.org

ABOVE: Swamp milkweed at Paw Paw Prairie Fen Preserve. © Jason Whalen/Big Foot Media

Build a Pollinator Garden | (Grade Levels: 3-8)

Adapted for print. Find the original lesson online at nature.org/naturelab. Source: U.S. Fish and Wildlife Service

A pollinator garden provides habitat for and attracts pollen-spreading species. Pollinators make native habitats and food growth possible; therefore, pollinator gardens have an essential function for our planet.

LEARN

Before planting your garden, check out these resources:

- Watch TNC's "Pollinators: Putting Food on the Table" to learn about pollinators and the important role they play (vimeo.com/77811127)
- For more information and step-by-step videos on building gardens, visit bit.ly/buildschoolgarden.

PICK YOUR SITE

Find an area in your yard at home, at your school, in your community, or even in a flowerbox on your porch, where you would like to provide pollinator habitat. Make sure you have permission to plant there!

Think about choosing a location where pollinators can also find nearby nesting sites and materials. Hummingbirds typically nest in trees or shrubs, and use plant materials, mosses, lichens and spider webs to construct their nests. Many butterflies lay eggs on specific plants that their young (caterpillars) eat. Most bees nest in the ground and in wood or dry plant stems. If it's not a safety hazard, consider leaving a dead tree or limb undisturbed to provide natural nesting habitat.

CHOOSE YOUR PLANTS

Consider the following when choosing plants for your garden:

- Choose plants that flower at different times of the year to provide a diversity of nectar and pollen sources throughout the growing season.
- Plant in clumps, rather than single plants, to better attract pollinators.
- Provide a variety of flower colors and shapes to attract different pollinators.
- Use NAPPC's "Pollinator Syndrome" table to find the types of flowers that different pollinator groups (bats, hummingbirds, bees, butterflies, etc.) find attractive. Find this table and other resources at www.pollinator.org/learning-center/gardens.
- Whenever possible, choose native plants. Native plants will attract more native pollinators and can serve as larval host plants for some species of pollinators.
- Pollinator friendly plants for your area can be found in NAPPC's Ecoregional Planting Guides (www.pollinator.org/guides).

DIG IN AND GET PLANTING!

Get a friend or family member to help you make your pollinator garden vision come to life! You will need (at a minimum) a spade or shovel, gardening gloves and a water source to give the plants a drink when you're done.

ENJOY

Be sure to water and maintain the garden regularly, according to the needs of the plants you chose, to make sure your garden thrives. Consider keeping a photo log or journal of the pollinators that stop by for a visit! What species can you identify?

REMEMBER

Avoid or limit pesticide use in your pollinator garden. Pesticides can kill more than the target pest. Some pesticide residues can kill pollinators for several days after the pesticide is applied. Pesticides can also kill natural predators, which can lead to even worse pest problems.



DID YOU KNOW?

Michigan's native prairie, which mostly grows in the southern part of the state, is full of flowering plants that pollinators love. Unfortunately, much of this habitat has been lost. TNC collects the seeds of prairie plants on preserves like Grand River Fen Preserve to help replant and restore these unique grasslands (see page 12).





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© Jason Whalen/Big Foot Media

The Legacy Club is a group of TNC supporters who have made a lasting commitment to conservation by making a life-income gift with TNC or by naming TNC as a beneficiary in their estate plans. The Legacy Club is a way for us to recognize this profound contribution to The Nature Conservancy's future.

Create Your Conservation Legacy

For more than half a century, thousands of bequests and planned gifts have provided vital support for the lands and waters you care about. Today you can help continue this tradition by making a lasting commitment to the Conservancy. When you join The Legacy Club, you help ensure that the conservation work we pioneer today will continue long into the future.

Legacy Club Benefits

- A personalized membership certificate;
- Nature Conservancy magazine, our award-winning quarterly publication;
- The semi-annual newsletter, Legacy;
- TNC's annual report;
- Trip invitations offering participants a unique and up-close look at our work;
- Invitations to special events; and
- Exclusive discounts and offers.

How to Join The Legacy Club

Membership is voluntary and without obligation. You can become a member of The Legacy Club by naming the Conservancy in your will or estate plan or by making a life-income gift or donating real estate to fund your gift.

To learn more about The Legacy Club, or if you are a Legacy Club member and have a question, please contact Paul Beczkiewicz at **(517) 316-2269** or pbeczkiewicz@tnc.org.

Or visit us online at nature.org/legacyclub.