

Field Notes  
*from* **Michigan**

For Members of The Nature Conservancy in Michigan

Spring 2022 Newsletter

The Nature  
Conservancy 

**INSIDE**

.....  
**PROTECTING SLATE RIVER**  
**HEROES OF SOIL HEALTH**  
**PARTNERING IN DETROIT**  
**A DECADE OF REEF RESTORATION**



Helen Taylor

## Together in Nature

I recently celebrated my 25th anniversary of working for The Nature Conservancy and I feel such gratitude towards this organization for providing me with the opportunity to contribute to this important mission of conservation. Every day, TNC achieves tangible, lasting results that continue to inspire and astound me. You only have to read this newsletter to see why!

Even with all we have achieved, my sense of urgency and dedication to this work only grew when I read the latest report from the United Nations' Intergovernmental Panel on Climate Change (IPCC). **What can each of us do**, when the world's leading scientists warn we have a "brief and rapidly closing window of opportunity to secure a livable and sustainable future for all"?

**Here's one easy thing to start with:** Let TNC's global science leader, Dr. Katharine Hayhoe, inspire you with a recent talk she gave to Detroit business leaders—you can find the recording at [nature.org/michiganclimate](https://www.nature.org/michiganclimate). A renowned climate scientist and an extraordinary communicator, Dr. Hayhoe makes collaborative climate solutions accessible and outlines them as absolutely achievable.

**Then, I invite you to read about our new Slate River Forest acquisition** on page 4. This stunning 10,000-acre property was an extraordinary save—for wildlife and for climate action. The large, mature trees not only are breathtaking, but they also store a substantial amount of carbon.

Compared to most protection projects of this scale, the acquisition of Slate River Forest happened practically overnight. When the stakes are this high, you just have to go for it—and that's exactly what TNC did. We didn't have time to rally our supporters then, but **we need your help now**. See page 4 for how you can support the Slate River Forest project.

**As I look back at the past 25 years, it's supporters like you who have always made everything possible.** Without you, we couldn't do this work, and I thank you from the depths of my heart. I hope you are proud of what we have accomplished together these many years, and I hope you are energized because there is so much more to do! I am inspired by what we can accomplish in the years to come—step by step, day by day, **together**.

Yours in Conservation,

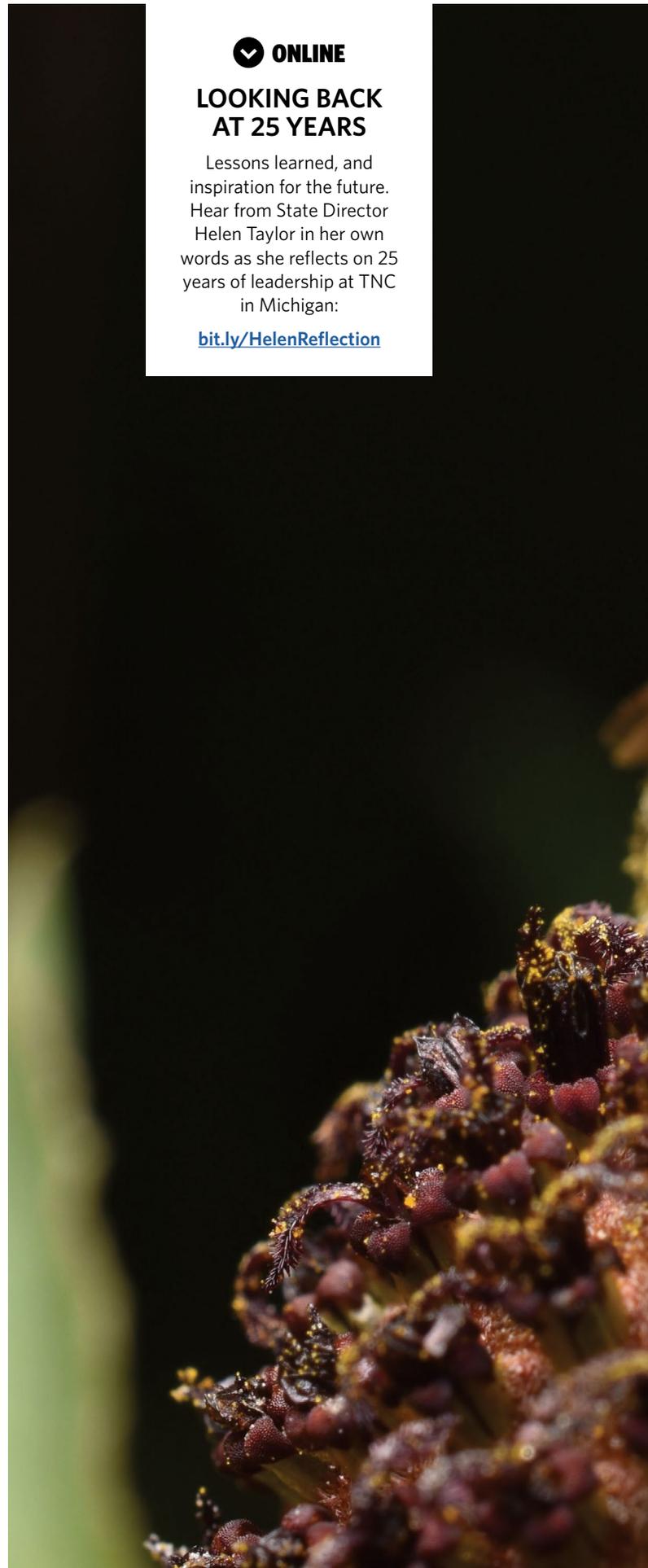
Helen Taylor  
State Director

ONLINE

### LOOKING BACK AT 25 YEARS

Lessons learned, and inspiration for the future. Hear from State Director Helen Taylor in her own words as she reflects on 25 years of leadership at TNC in Michigan:

[bit.ly/HelenReflection](https://bit.ly/HelenReflection)





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COVER: Hepatica is a small flowering plant that blooms early during the spring. © ColdSnap Photography

LEFT: A small bee covered in pollen on top of a purple flower at Woldumar Nature Center in Lansing, Michigan. © Philip Stepnowski/TNC Photo Contest 2021



## SUPPORT SLATE RIVER

Conserving the lands and waters on which all life depends takes all of us, working together. We've raised almost \$10 million to meet acquisition and project costs, which include the \$14.2 million purchase price and a stewardship endowment for ongoing reserve management.

**We invite you to be part of this exciting forest protection achievement. All donations made using the return envelope included with this newsletter will be set aside for the Slate River Forest.**

Alternatively, you can email Jeremy Wittrock, Development Director, at [jeremy.wittrock@tnc.org](mailto:jeremy.wittrock@tnc.org) or call TNC's development department at (517) 316-0300 to contribute today!

*A big THANK YOU to everyone who has already stepped up to help with the conservation of the Slate River Forest!*





© Jason Major



© TNC

# Slate River:

## WHAT'S NEXT?

TNC'S RECENT ACQUISITION OF THE 10,550-ACRE SLATE RIVER FOREST is an extraordinary success story—a story reflected in its towering maple, pine and hemlock trees, diverse native plants and the shining, free-flowing waters of the Slate and Ravine rivers.

“When I first visited the property, I was so impressed with how well it had been managed by the previous owners,” says Emily Clegg, forest conservation project manager for TNC. “It would be wonderful if more of Michigan’s forests were this healthy, diverse and productive.”

The Upper Peninsula makes up less than a third of Michigan’s land area but has about half of its forestland. TNC has worked for decades to support U.P. forest conservation and increase sustainable management—through land acquisition, restoration projects, conservation easements, advocacy, scientific research and engagement with other forest managers. The new Slate River Forest will add to more than **85,000 acres of connected conservation lands** in the Michigamme Highlands area—25,000 acres of which TNC has directly contributed to over the past two decades.

“With this addition, we are protecting a landscape that includes two beautiful rivers, a 150-foot-deep gorge with multiple waterfalls, stunning vistas and enormous trees. The Slate River Forest might be the most outstanding example of a well-managed forest in the Great Lakes region,” says Emily.

This forest not only protects habitat for wildlife but also helps nature **fight climate change**.

The mature trees of the Slate River Forest have built up significant carbon storage, which TNC estimates to be around half a million metric tons. We will continue to implement practices that help the forest sequester and store carbon. We estimate that the reserve has the capacity to capture and store an additional 115,000 metric tons of atmospheric carbon over the next 40 years, while still contributing timber to the forest products industry, as it has done for decades.

“THE MATURE TREES OF THE SLATE RIVER FOREST HAVE BUILT UP SIGNIFICANT **CARBON STORAGE**, WHICH TNC ESTIMATES TO BE AROUND **HALF A MILLION METRIC TONS.**”

TNC will certify the reserve with the Forest Stewardship Council, which provides third-party verification of the **sustainable management practices** we will be using. Parts of the property are subject to pre-existing recreational leases, which give the **leaseholder exclusive recreational use** of those areas. The balance of the property will be **open to the public** for foot access for hunting, fishing and the enjoyment of nature.

“This property has been an important part of the community for many years,” Emily says. “Many people have special ties to the area. We want to make sure that folks can continue to enjoy it and feel connected to it.”

The need to protect places like the Slate River Forest grows greater every day. “As soon as I heard about this forest, I knew we had to protect it,” says Helen Taylor, state director for TNC in Michigan. “The timber in this forest is hugely valuable. Some owners would have been tempted to sell all that timber, undoing decades of thoughtful stewardship. And in some parts of this region, native forests are being converted to plantations, a practice that permanently and negatively alters the health and resiliency of the forests and the wildlife species that depend on them. That’s why this acquisition was such an important conservation win for TNC.”

TNC received confidential notification about the sale of the Slate River Forest in August 2021, the only conservation organization invited to make a bid. Fortunately, the seller accepted our bid, and we closed on the property just three months later.

“The Slate River Forest is an important piece of TNC’s overall forest conservation strategy. It demonstrates what **managing a mature forest sustainably** can look like and will hopefully inspire others to adopt some of those practices,” says Emily. “There are other exciting projects on the horizon, so stay tuned! Each one’s unique, but they all have a big role to play in assuring healthy Michigan forests—just like this reserve.”

As TNC explores these opportunities to protect Michigan’s forests, we’re doing so in partnership with the community—and with an eye toward the bigger picture.

It’s the start of something beautiful.



TNC and AFF launched the Family Forest Carbon Program in 2017. It is now available in Maryland, Pennsylvania and West Virginia, with the Great Lakes Northwoods as the focus of its next expansion. © Bekah Wuchner/TNC



## COMING SOON TO A FOREST NEAR YOU

This summer, TNC and the American Forest Foundation (AFF) will bring the Family Forest Carbon Program to the Great Lakes region, and invite a new sector of forest managers to participate in the growing use of natural climate solutions. The Family Forest Carbon Program will provide an opportunity for smaller forest owners (with as few as 30 acres) to implement practices that make forests healthier and sequester more carbon, and qualify for carbon market incentives.

The first two years of this Northwoods program, spanning northern Michigan, Wisconsin and Minnesota, will act as a learning pilot program. It will focus on maple/beech/birch and aspen forest types across about 8,000 acres in total. AFF will administer the program, providing resources and technical support to participants, while TNC contributes to the technical and scientific foundation for the program's success. The success of this pilot will allow the program to expand in future years.

When it comes to tackling climate change, we want everyone to have a chance to join in!

For more information, visit: [familyforestcarbon.org](https://familyforestcarbon.org).

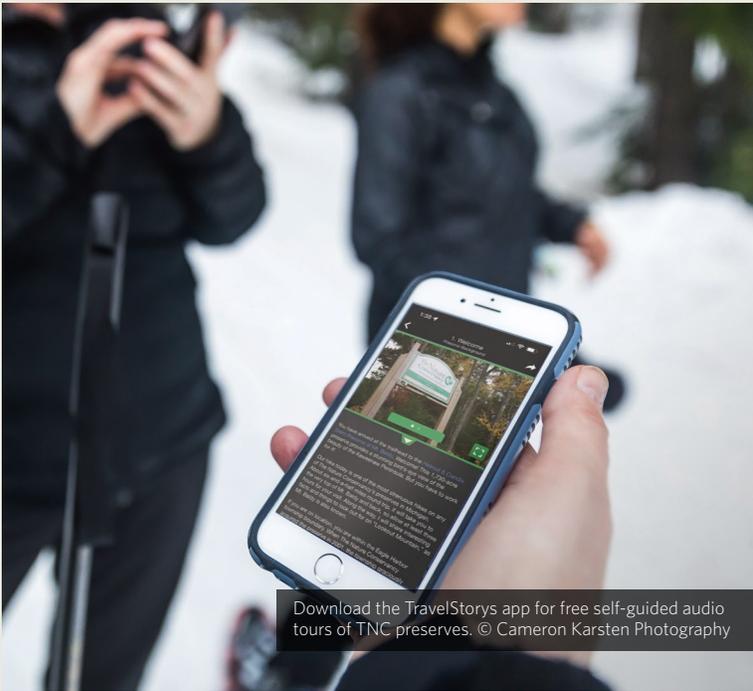
LEFT: Together, family-owned forests represent more than a third of U.S. forests; individually, however, many are too small to participate in carbon projects. The Family Forest Carbon Program lowers barriers for this group. © Drew Kelly



Mary MacDonald Preserve at Horseshoe Harbor. © TNC



Helmut and Candis Stern Preserve at Mt. Baldy. © Jason Whalen/Big Foot Media



Download the TravelStories app for free self-guided audio tours of TNC preserves. © Cameron Karsten Photography



McMahon Lake Preserve. © Chris Cantway/TNC

## NEW AUDIO TOURS AVAILABLE: TAKE A VIRTUAL FIELD TRIP TO THE UPPER PENINSULA!

Visit [nature.org/miexplore](https://nature.org/miexplore) to access all of TNC's audio tours and find new ways to explore—at home or in the field.

### MARY MACDONALD PRESERVE AT HORSESHOE HARBOR

The Keweenaw Peninsula of northern Michigan, framed by Lake Superior, is a landscape beloved by people and wildlife alike. Since 1982, this preserve has protected a beautiful stretch of this coastal destination. Take a stroll down to the beach (it can even be virtual!) as you learn about this preserve's myths, mysteries and diversity of life, from lichen to carnivorous plants.

### HELMUT & CANDIS STERN PRESERVE AT MT. BALDY

Another popular Keweenaw Peninsula preserve, Mt. Baldy offers stunning views of the peninsula's forests and wetlands. The preserve has much to offer the intrepid hiker, such as the sights and sounds of Great Lakes forests, and glimpses of the raptors that soar above the cliffs. And with this audio tour, you don't even need to hike up a mountain to experience it!

### MCMAHON LAKE PRESERVE

Take a trip back in time with TNC at this eastern Upper Peninsula preserve, where the forests and wetlands look much as they did thousands of years ago. From the rare patterned fen, to fun facts about moose and mushrooms, this tour provides a closer look at the interconnected nature of this special place.



ONLINE

## CHANGEMAKERS AT WORK

Watch videos highlighting the 2021 Soil Health Heroes at [soilhealthheroes.com](https://soilhealthheroes.com).



TNC's current projects in the Saginaw Bay watershed range from building out a comprehensive water quality monitoring network, to several emerging incentives programs for sugar beets, wheat and dairy production. You can learn more about TNC's work at [soilsavings.com](https://soilsavings.com). © Jason Whalen/Fauna Creative

# Heroes of Soil Health

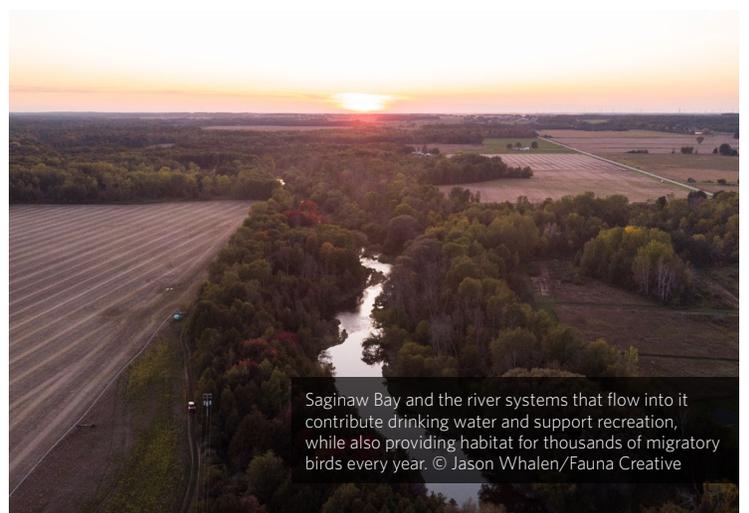
THE THIRD BIENNIAL SOIL HEALTH HERO AWARDS took place this January at the Great Lakes Crop Summit in Mt. Pleasant. At a session hosted by TNC, four farmer awardees were honored in front of their peers for the work they are doing to advance a thriving, regenerative agricultural system in the Saginaw Bay watershed. An agribusiness award was also presented earlier that month at the Michigan Agri-Business Association's annual conference.

Change isn't easy, and it couldn't happen without the leadership of farmers who are early adopters of soil health practices. TNC's Soil Health Hero Awards are an opportunity to recognize the perseverance and innovation of these individuals within their own community. Awardees are peer-nominated and selected by a committee representing agribusiness, conservation districts, academia and more.

"It's important for TNC to host these awards because these farmers are the true experts in soil health, and they deserve to have their stories shared," says Ben Wickerham, TNC's Saginaw Bay Project Lead. "Their stories are real-world examples of how successful soil health farming can be. We hope their examples will teach and inspire others on their soil health journey."

TNC provides Saginaw Bay watershed farmers with technical and financial support as they incorporate soil health practices—such as reduced tillage, cover crops and nutrient management—into their operations. These practices reduce nutrient and sediment loss in runoff, supporting more resilient farms and protecting the clean water we all depend on.

As we look to the future of food production in Michigan, it is farmer and agribusiness leaders like these who will help ensure that future is one where people and nature can thrive together.



Saginaw Bay and the river systems that flow into it contribute drinking water and support recreation, while also providing habitat for thousands of migratory birds every year. © Jason Whalen/Fauna Creative



The 5.5-million-acre Saginaw Bay watershed features some of Michigan's best farmland, with rich soils that allow for diverse crop rotations and higher yields. © Jason Whalen/Fauna Creative

# 2021 SOIL HEALTH HERO AWARDEES

## Conservation Excellence Agribusiness Award

Lisa Woodke, *Star of the West Milling Company (Frankenmuth)*

Lisa, as the sustainability director for Star of the West Milling Company, has been a trusted resource to farmers in the Saginaw Bay watershed for more than five years. Lisa has her Sustainability Specialty certificate as a Certified Crop Adviser, and has been integral in connecting farmers to conservation services and opportunities. Lisa is working with TNC to pilot a new program for sustainably grown wheat in the Saginaw Bay watershed.



## Conservation Impact Award

Pohl Dairy (*Mt. Pleasant*)

For over four decades, the Pohl family has operated a 340-head dairy operation in the upper Pine River watershed. In 2020, Pohl Dairy worked with TNC to adopt cover crops on more than 1,200 new acres. Over a three-year period, this will prevent an estimated 573 tons of sediment and nearly a ton of phosphorus from entering the Pine River, protecting downstream water quality as well as the productivity of this multi-generational farm.



## Conservation Newcomer Award

Scott Brechtelsbauer (*Frankentrost*)

Scott made the switch to no-till on his 280 acres and on a corporate farm where he is a partner, in response to topsoil loss from wind erosion. Five years later, Scott is already seeing the benefits, including increases in soil organic matter and “earthworms everywhere.” Scott also uses cover crops with diverse, 7-8 species blends, striving to maintain on-field vegetative coverage throughout the entire year. This helps protect the rich organic matter and good soil structure that make a farm more resilient over time.



## Conservation Innovation Award

Don Morse, *Morse Farms (Birch Run)*

Don Morse—a soil health advocate and Pioneer seed dealer—utilizes a suite of practices that includes conservation cover, cover crops and no-till on more than 2,800 acres of row crops. He is one of the longest-practicing “no-tillers” in the region! A true farmer-inventor, Don has made several innovative customizations to his equipment. He credits his long-term, continuous use of no-till and cover crops for the multiple benefits he’s observed—including reduced soil loss, increased organic matter, preserved soil moisture and prevention of invasive weed species.



## Conservation Legacy Award

Nate Rupprecht, *King Street Dairy (Vassar)*

Nate farms both cash crops and livestock (dairy) in Tuscola County. He and his family blend no-till, multi-species cover crops and integration of livestock and manure, all while protecting water quality and maintaining high environmental standards. Nate has helped with, and hosted, several learning opportunities for conservation partners, including in 2018 when the Rupprechts’ farm was used as a cover crop research site by the National Resources Conservation Service. In 2020, Nate was recognized as Tuscola Conservation District’s “Conservationist of the Year.”



In Michigan, TNC is working with farmers to expand the use of soil health practices such as cover crops, shown here, that protect farm fields against erosion and prevent nutrient runoff. © Jason Whalen/Fauna Creative



## *A Thriving Partnership*

TNC HAS WORKED WITH THE SACRED HEART CHURCH community in Detroit over several years to develop the church's innovative green stormwater infrastructure (GSI) project, transforming the parking lot with a garden that manages up to 3.5 million gallons of runoff a year.

This is the final year that TNC will contribute to the garden's maintenance, but it will continue to thrive thanks to Sacred Heart Church parishioners. TNC launched a program in 2021 to provide training on maintaining native plant gardens and GSI features to the church's grounds crew and Garden Club members. They will take over the project starting with the 2023 growing season.

"I was so glad to hear from parishioners that they felt the training and workshop were a success, and that they feel prepared to lead the project going forward," says project lead Candace Calloway, TNC's Healthy Cities program associate. "The local community has really come together around this project, which is great to see."

**▶ ONLINE** | Learn more about how TNC worked hand-in-hand with the church community at [nature.org/detroit](https://nature.org/detroit).

RIGHT: Heavy summer storms in 2021 left minimal standing water in the parking lot, demonstrating the project's effectiveness at capturing and absorbing runoff into the soil. © Patrick Doran/TNC





A Sacred Heart Church member tends to the garden, which is now in its third growing season. © Candace Calloway/TNC



In October, TNC also hosted a native plant workshop that taught area residents about different native plant species and GSI management best practices. © Candace Calloway/TNC



The garden's native plants provide habitat and food sources for pollinators such as honey bees. © Patrick Doran/TNC



The gardens are part of a nature-based system that manages stormwater from a nearly two-acre area and helps the church cut its drainage charge in half. © Jason Whalen/Fauna Creative

# Then and Now: *The Reefs of Grand Traverse Bay*

**PICTURE A REEF.** Most likely, you're imagining a colorful coral reef in a tropical sea. But the Great Lakes have their own rocky reefs—humbler in appearance, but with a similarly vital role to play for local fisheries. These rocky, shallow-water habitats provide protected spaces for fish to lay their eggs and for young fish to get their start in life. That is, if the reef is in good condition.

In Grand Traverse Bay, just off the coast of Elk Rapids, are three rocky reefs that represent one of the only known remaining spawning areas for cisco (lake herring) in Lake Michigan, as well as habitat for lake whitefish and lake trout. However, one of these reefs was severely degraded. Starting in 2015, TNC has worked with the Michigan Department of Natural Resources (DNR) and Central Michigan University (CMU) researchers to restore the reef, using large cobble rock to rebuild it.

But this restoration success is not one moment in time. The work began more than a decade ago, and continues to this day.

## BEFORE (2011-2015)

“You can't just dump rocks anywhere,” says Matt Herbert, senior conservation scientist and TNC project lead. “This project really benefited from a strong foundation of science that helped us weigh the potential costs and benefits.”

That foundation was already underway a decade ago, when TNC was beginning to explore the possibilities for restoring Great Lakes forage fishes like the cisco, an important food source for larger predators. At that time, CMU and DNR researchers were actively collecting data at the Elk Rapids reef complex.

“We got in touch with them and asked about what they'd learned so far, and whether we could build on it and start

thinking about restoration,” says Matt. “They were all in. We formed a team and got to work.”

Thanks to early support from donors such as the Meijer Foundation, Great Lakes Basin Fish Habitat Partnership and Dole Family Foundation, the team was able to get the necessary resources

together and complete pre-restoration monitoring.

“Going into the project, the need for restoration was very clear,” says Matt. “Fish were using the reef, but egg loss was extremely high. The poor condition of the reef meant that the eggs didn't have enough protection from waves and predation.”

## DURING (2015-2021)

On an overcast day in August 2015, the tugboat Wendy Anne towed a barge laden with 450 pounds of rock out to the reef—rock that had been selected to mimic the type, size and amount of the higher quality habitat on the other two reefs.



TOP: Tugboat Wendy Anne tows a barge of rocks to the reef site. BOTTOM: Rocks being placed in the reef. © Big Foot Media

This rock was carefully placed in the water at the right depths in the right places. When the fish returned from deeper parts of Lake Michigan that fall to spawn, they would find a rehabilitated reef with plenty of nooks and crannies to keep their eggs safe.

“This was TNC's first underwater restoration project for Michigan,” says Matt. “It was also an innovative way of thinking about native fish restoration at the time.”

In order to judge project success, the team needed at least five years of monitoring. They set traps that would allow them to calculate the natural egg deposition, but they also needed a way to see how many eggs were still being lost. So, the team “seeded” the reef with a known quantity of brown trout eggs from a local hatchery, and a known quantity of beads with the same buoyancy as the eggs.

“That way, when we pulled out the traps each fall, we could also calculate how much of the brown trout eggs we placed had been lost to predation and physical forces, such as waves,” says Matt. “And the loss of the beads—which predators won't eat—helped us understand how much of that loss could be attributed just to physical forces.”

Over five years of monitoring, the team saw a clear increase in the number of fish eggs and a downward trend in the rate of egg loss for cisco and lake whitefish.

**THE TIMING OF THIS WORK IS CRITICAL, AS GREAT LAKES FISHERIES HABITAT RESTORATION IS RAPIDLY BECOMING A PRIORITY.**

## AFTER (2022-AND BEYOND)

The results are in: Reef restoration can work. So, what's next?

"There's a lot of interest in reef restoration right now," says Matt. "There are other projects going on now in other parts of the Great Lakes, including the Detroit River and Saginaw Bay. But the Great Lakes are huge, and each reef has its own dynamics. At a minimum, you need a solid foundation of pre-restoration monitoring data, like these projects have, before you can start putting rocks in the water. And there's still a lot of work to do before we can make broad recommendations."

This includes studying the current condition of Great Lakes reefs, including where there are high-quality reefs in need of protection, or degraded reefs that should be prioritized for restoration. TNC is coordinating a Great Lakes-wide reef assessment project to fill in this extensive knowledge gap.

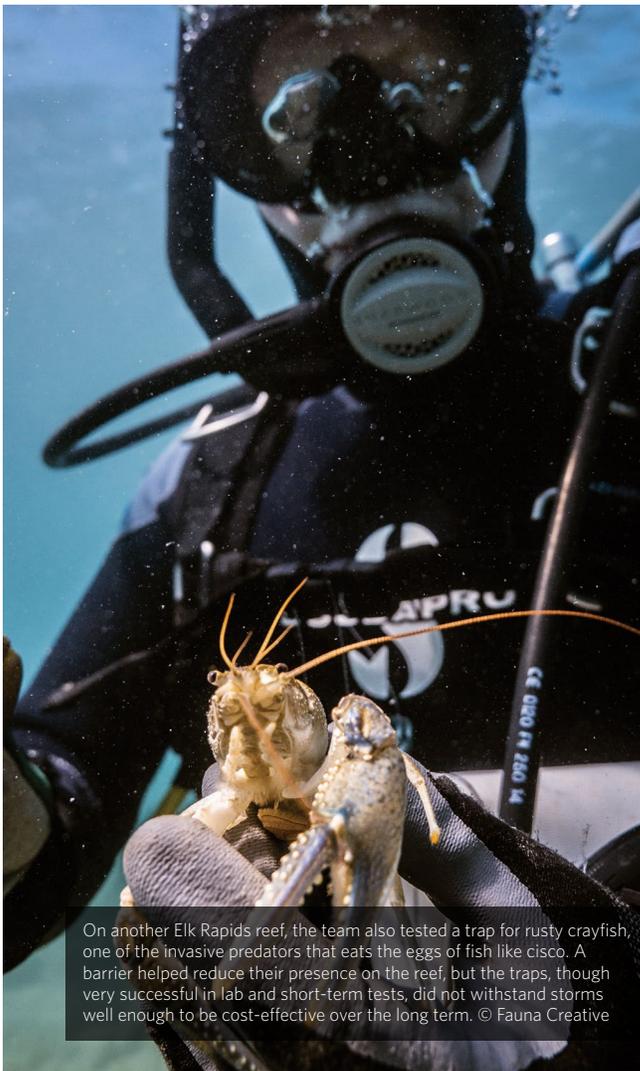
"We don't know what's using these reefs, what their condition is, what kind of sediment buildup they have, whether they're affected by invasive species like zebra mussels," says Matt. "There are just too many unknowns right now."

The timing of this work is critical, as Great Lakes fisheries habitat restoration is rapidly becoming a priority.

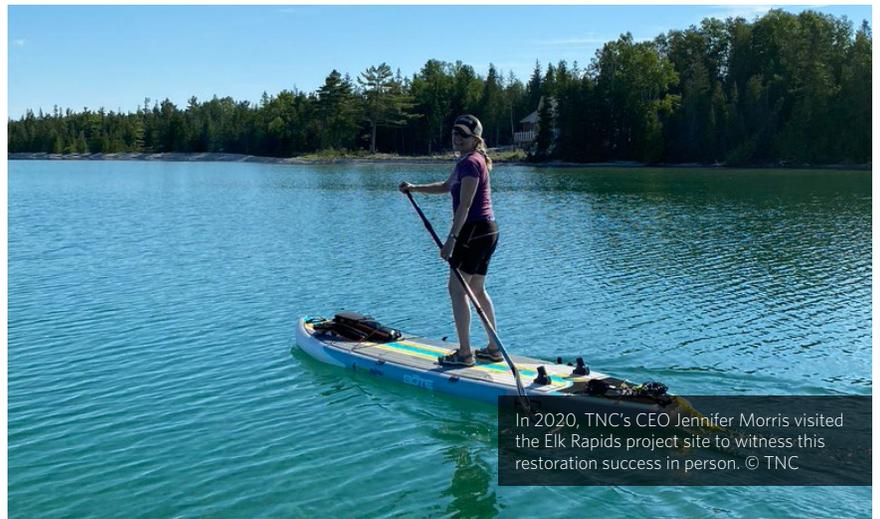
"Most strategies to support fisheries to date have focused on stocking," says Matt. "The Grand Traverse Bay project showed that habitat restoration is a viable complementary strategy. If we can make the Great Lakes habitats better for fish and the populations can re-establish themselves, we won't need to rely on stocking anymore—the Great Lakes can be a self-sustaining system."



Historically, cisco (pictured here) were the largest commercial catch in the Great Lakes and provided an important source of food to apex predators like the lake trout. © Paul Vecsei



On another Elk Rapids reef, the team also tested a trap for rusty crayfish, one of the invasive predators that eats the eggs of fish like cisco. A barrier helped reduce their presence on the reef, but the traps, though very successful in lab and short-term tests, did not withstand storms well enough to be cost-effective over the long term. © Fauna Creative



In 2020, TNC's CEO Jennifer Morris visited the Elk Rapids project site to witness this restoration success in person. © TNC



In 2019, a delegation from China's Ministry of Agriculture visited the Great Lakes to learn how fisheries experts here are working on issues such as freshwater habitat loss and invasive species. © Jason Whalen



## UPCOMING EVENTS

### VOLUNTEER AT IVES ROAD FEN PRESERVE

Saturdays, April through May, 9am-12pm ET

Every spring and fall, a group of dedicated volunteers comes together at Ives Road Fen Preserve in southeast Michigan. We'd love for you to join! Help pull invasive garlic mustard in the floodplain forest next to the River Raisin, and enjoy the woodland wildflowers and herptiles. Visit [nature.org/mievents](https://www.nature.org/mievents) to learn more.

### ERIE MARSH FIELD TRIP

Saturday, May 21, 9am-11am ET

Join TNC for a spring field trip at Erie Marsh Preserve, located on North Maumee Bay, an hour south of Detroit. Choose from either a guided birding hike or a closer look at TNC's work to restore these unique wetland habitats. Space is limited, so sign up today at [nature.org/mievents](https://www.nature.org/mievents) to reserve your spot.

### ALDO LEOPOLD FESTIVAL

June 1-5

Come celebrate the legacy of naturalist Aldo Leopold at this popular summer festival in Les Cheneaux. TNC will be hosting field trips at three of our nearby preserves: the John Arthur Woollam Preserve, the Carl A. Gerstacker Preserve and the Maxton Plains Preserve on Drummond Island. Find more information at [aldoleopoldfestival.com](https://www.aldoleopoldfestival.com).

### #10TRAILCHALLENGE

Throughout July

Chikaming Open Lands, a nonprofit land conservancy in southwest Michigan, is hosting the #10TrailChallenge this July—and TNC's Ross Coastal Plain Marsh Preserve is one location where you can participate. While exploring the preserve's unique habitats, snap a selfie at the photo station and tag Chikaming Open Lands to win prizes! Start exploring at [chikamingopenlands.org](https://www.chikamingopenlands.org).

**Can't make it in person? Connect with TNC online, including audio tours, lectures and more, at [nature.org/miexplore](https://www.nature.org/miexplore).**

ABOVE: Ives Road Fen Preserve in the summer. © Jen Moore



## DOUBLE YOUR IMPACT FOR CLIMATE!

A changing climate is one of the greatest challenges of our time. That's why TNC is working closely with Michigan's industrial, manufacturing and agricultural sectors to build momentum behind market-based climate solutions and clean energy policy.

**And right now, all donations to TNC's climate action strategy have twice the impact.** TNC supporters Tony and Sarah Earley are matching donations to TNC's climate work in Michigan, dollar for dollar up to **\$150,000**. Thanks to our generous supporters, we have unlocked a third of the Earleys' climate action gift to date. **Help us unlock the rest by donating today!**

Send an email with the subject line "Make the Match for Climate Change" to Jeremy Wittrock, Development Director, at [jeremy.wittrock@tnc.org](mailto:jeremy.wittrock@tnc.org) or call TNC's development department at **(517) 316-0300** to contribute.

Thank you for your support.

ABOVE: Piping plover chick at Zetterberg Preserve at Point Betsie. © Jason Whalen/Fauna Creative



Nature Lab is a robust and engaging online platform developed by TNC for parents and educators, so that young people can confront the urgent and complex challenges facing the planet. Nature Lab helps youth learn about conserving nature for its own sake and for its ability to fulfill their needs and enrich their lives. Visit [nature.org/naturelab](https://nature.org/naturelab) to access lesson plans with interactive worksheets, videos and hands-on projects.

**Cut out this page and participate in this fun Nature Lab activity!**

© Dietrich Ludwig

## YOU'RE THE SCIENTIST

(Grade Levels: 3-8) Made possible with support from Carrier. Adapted for print. Find the full guidance at: [nature.org/naturelab](https://nature.org/naturelab)

The conservation community relies heavily on volunteers to not only restore natural areas but also help gauge the success of restoration efforts. Volunteers team up with experienced stewards and scientists to monitor the recovery of native habitats, or to record data on rare species of wildflowers, butterflies and other wildlife. And can kids get involved? Definitely! In this activity, learn all about citizen science.

### WATCH

First, take a virtual field trip with TNC by watching this video highlighting cicadas, frogs, and citizen science in action! Learn the history of citizen science from our field trip host, and see volunteers collecting data on calling frogs and toads at wetlands in the Washington, D.C., area: [youtu.be/Wpkb3jmXaac](https://youtu.be/Wpkb3jmXaac)

### FAQ

*Q: What do all citizen science projects have in common?*

A: In citizen science projects, a wide community of scientists and volunteers works together to collect data that is accessible to all. Participants use the same protocol or procedure so data can be combined and used properly.

*Q: What are some benefits of citizens contributing to science?*

A: It helps scientists collect large amounts of data and samples that can be used to reach conclusions. Projects benefit from the time and dedication of community members, who in turn have the opportunity to learn about conservation and science.

*Q: Is it necessary for someone to be a student or have a science background to participate in citizen science projects?*

A: No. Anyone can participate!

### YOUR TURN!

Research and select a citizen science project to participate in. Use one of the suggested resources below—or find your own!

### FIND A PROJECT

- SciStarter is an online citizen science hub with more than 3,000 projects, searchable by location, topic, age level, etc. [scistarter.org](https://scistarter.org)
- Budburst is a network of people across the United States who monitor the leafing, flowering and fruiting of plants, sponsored by the Chicago Botanic Garden. [budburst.org](https://budburst.org)
- Globe at Night invites citizen scientists to submit their night sky brightness observations to help this international campaign raise awareness of the impact of light pollution. [globeatnight.org](https://globeatnight.org)
- Bumble Bee Watch is a collaborative effort to track and conserve North America's bumble bees. [bumblebeewatch.org](https://bumblebeewatch.org)
- Project Squirrel is a citizen science project in which anyone can participate—whether squirrels live in your neighborhood or not! [projectsquirrel.org](https://projectsquirrel.org)

### ADDITIONAL RESOURCES

- iNaturalist: [inaturalist.org](https://inaturalist.org)
- Chronolog: [chronolog.io](https://chronolog.io)
- Citizen Science.gov: [citizenscience.gov](https://citizenscience.gov)
- National Park Service: [nps.gov/subjects/citizenscience](https://nps.gov/subjects/citizenscience)
- National Oceanic and Atmospheric Administration: [noaa.gov/education/resource-collections/education-at-home/citizen-science](https://noaa.gov/education/resource-collections/education-at-home/citizen-science)



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# Give the Gift of a Lifetime

To make a gift of any kind to The Nature Conservancy is an act of generosity. To make a long-term gift—one derived from the work of a lifetime—is to make a commitment beyond measure.



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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](mailto:pbeczkiewicz@tnc.org).

Or visit us online at [nature.org/legacyclub](http://nature.org/legacyclub).



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