

2020 MICHIGAN RESULTS REPORT

A YEAR IN CONSERVATION

The Nature
Conservancy



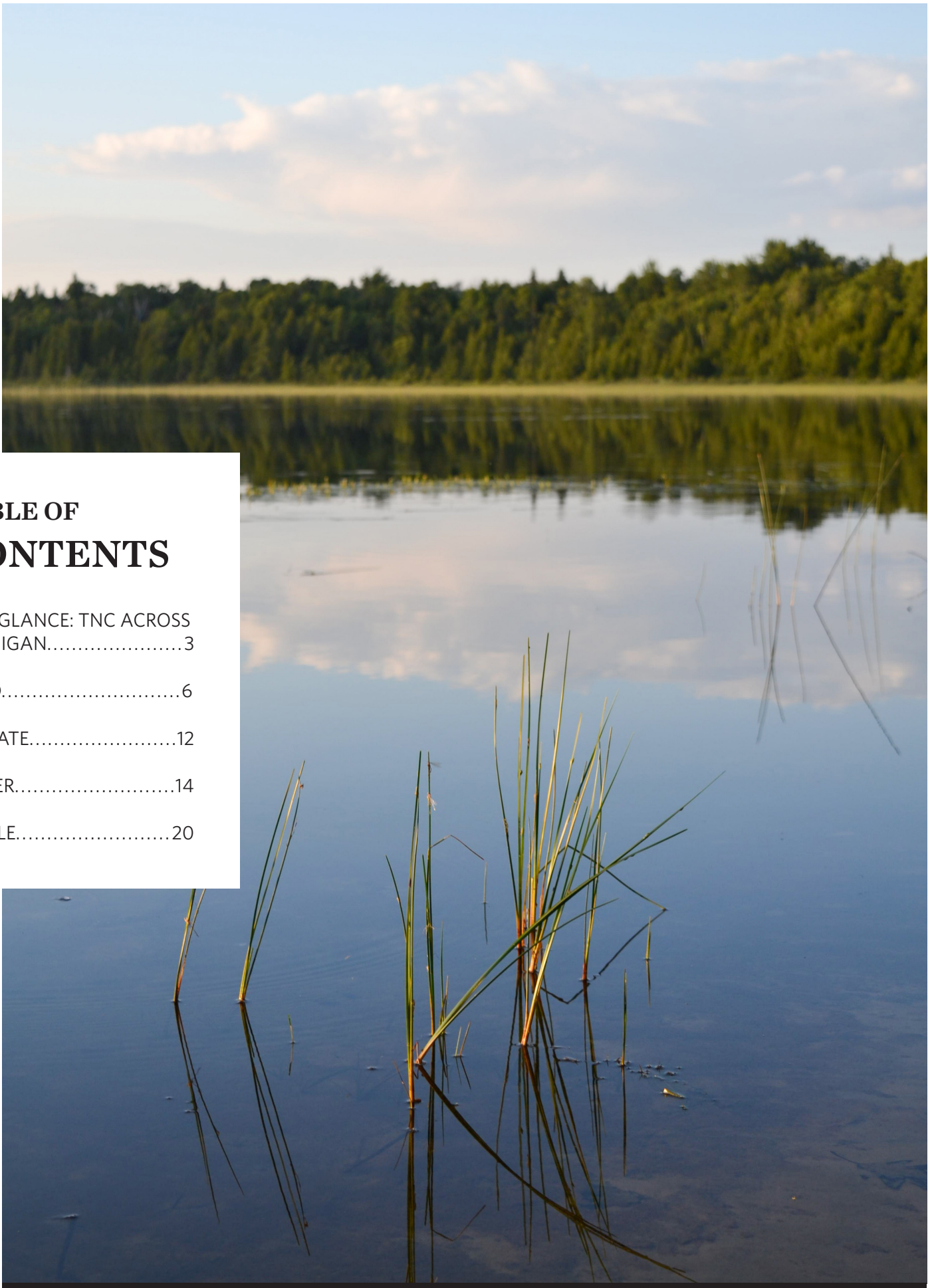


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Building Resilience

This photo of a yellow warbler (*Setophaga petechia*) is not the picture-perfect view that you would see in an advertisement—which is why I find it perfect. It's real. A bit wind-blown. A bit harried. With just a dash of "side-eye." Who hasn't felt this way over the past year?

The challenges that people and nature face are a constant. Resilience enables us to respond to those challenges. In a difficult year, many of us found our own resilience by spending more time in nature. Nature has continually protected us and in turn, we must continue to protect nature.

For species like this yellow warbler, and many of the plants and animals that travel through or make their homes in Michigan, the impacts of a changing climate and habitat fragmentation threaten their very existence. The Nature Conservancy is hard at work to address these threats—and I'm glad to say we're far from alone.

The challenges posed by a global pandemic affected us all, but the strength of TNC's partnerships—from land trusts to government agencies to Indigenous communities—helped us continue to drive toward tangible, lasting conservation results. The impact of this collaboration is reflected in every success story highlighted in the pages of this 2020 report.

Because, ultimately, that is how we grow more resilient: together.

Thank you for your partnership!

In conservation,

A handwritten signature in black ink that reads "Patrick J. Doran". The signature is written in a cursive, flowing style.

Patrick J. Doran



Patrick Doran
Associate State Director

COVER: Fern at McMahon Lake Preserve. © Jason Whalen/Fauna Creative

LEFT: Big Trout Lake at Carl A. Gerstacker Preserve at Dudley Bay. © Chris Cantway/TNC

ABOVE: Yellow warbler resting on a branch, bracing against the wind. © Audrey Chambers/TNC Photo Contest 2018

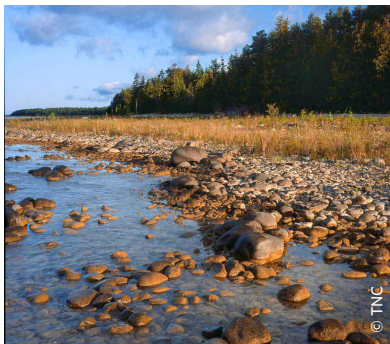
Conservation Across Michigan



© Matt Herbert/TNC

1 STUDYING KIYI FOR RESTORATION

TNC is leading an initiative to learn more about kiyi’s spawning habits in Lake Superior to ultimately inform restoration efforts. For the past several years, we have worked with a commercial fisher out of Munising to catch this native fish in the middle of winter. We shared our preliminary results with agency partners, who expressed strong interest in experimentally raising kiyi in a hatchery. Now, we are working with the U.S. Geological Survey, the Little Traverse Bay Bands of Odawa Indians and the Sault Tribe of Chippewa Indians on a pilot effort to attempt raising kiyi—a next step toward restoration.



© TNC

2 SECURING THE FUTURE OF NORTH POINT

Since TNC acquired the majority of North Point Peninsula in 2018, we have worked with partners to develop a long-term conservation vision and management plan for this unique place: nearly 1,400 acres and four miles of shoreline on Lake Huron. In 2021, TNC will transfer this property to the Friends of Thunder Bay National Marine Sanctuary, with a conservation easement held by Huron Pines—ensuring its protection in perpetuity, and opening the door to potential future educational and low-impact recreational opportunities.



© Jason Whalen/Fauna Creative

3 GOING VIRTUAL IN SAGINAW BAY

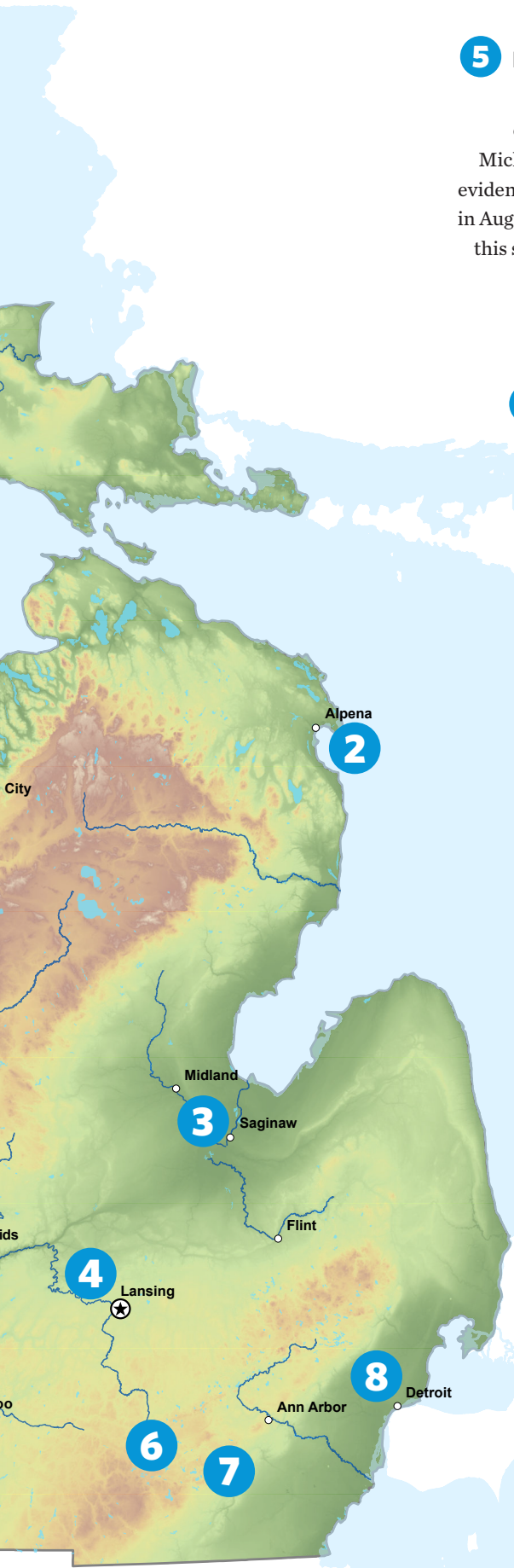
Impacts of the COVID-19 pandemic meant that our popular lecture series for farmers and agribusiness couldn’t continue meeting in person this year. Instead, we took our outreach virtual, launching a new “Coffee Conversation” series. We have seen double the participation—a new normal as we’re learning and expanding our reach to new audiences.



© Michael DL Jordan/dlp

4 ADVANCING POLICY WITH MICHIGAN'S LEADERS

Though the safety limitations imposed by COVID-19 prevented TNC from connecting with state leaders in person, we launched a new approach to hold policy briefings for state policy and legislative staff, and we scaled up our digital communications. TNC works closely with Michigan’s leaders to help them understand the science behind key issues and how nature can be part of the solution to some of our state’s most pressing challenges.



5 ENGAGING COMMUNITY AT ROSS PRESERVE

TNC’s popular Ross Coastal Plain Marsh Preserve continues to play an important role in helping West Michigan residents and visitors connect with nature, as evidenced by our virtual “Resilient at Ross” preserve tour in August, which gave 160 participants an insider’s view of this special place and drew over 700 digital views by the end of the year.



© Shaun Howard/TNC

6 RESTORING WETLANDS AT THE GRAND RIVER HEADWATERS

This year, TNC expanded our restoration efforts at the 627-acre Grand River Fen Preserve to include over 100 acres of adjacent private land. Improving the condition of wetlands here benefits the headwaters of the Grand River, the longest river in Michigan. This work is funded by the Michigan Department of Transportation, to offset impacts to wetlands through the Jackson Freeway Modernization Project on I-94.



© Jason Whaley/Big Foot Media

7 CAPTURING LONG-TERM PROGRESS ON TNC PRESERVES

This year, TNC restoration staff took a close look at the data to summarize how well our preserve management efforts are improving habitat quality. We are proud to show consistent improvement in TNC-managed lands, like the Ives Road Fen Preserve. Just 15 years ago, much of the preserve was in poor condition, but healthy habitat now thrives across all of the preserve’s 700 acres.



© Kevin Kluczek

8 TNC RECOGNIZED FOR BREAKING DOWN BARRIERS

At the annual Eastern Market Vendor Awards Dinner in January 2020, TNC was recognized for our collaborative efforts to incorporate green stormwater infrastructure (GSI) into the district’s expansion, receiving the Silo Buster award together with partners in the City’s Planning Department and the Detroit Economic Growth Corporation.



© TNC

Map: Stephanie Hicke/TNC

LAND



Speaking Up for Lands and Waters: Michigan Says **YES** to Prop 1

This past November, Michiganders made history by overwhelmingly voting YES on Proposal 1 to protect Michigan's land, water, wildlife and parks for generations to come. Eighty-four percent of voters supported Proposal 1, which removes the previous limit on the Michigan Natural Resources Trust Fund (MNRTF). This ensures that all future state mineral, oil and gas revenue in Michigan will continue to go toward protecting our state's natural resources, providing public recreational facilities and supporting state parks—forever.

The Vote YES coalition was integral to the passage of Proposal 1. It was founded

by The Nature Conservancy, Michigan Environmental Council, Michigan United Conservation Clubs, Heart of the Lakes, mParks and Michigan Trails & Greenways Alliance. Ultimately, over 30 environmental conservation groups joined together to help support Proposal 1, with close to 100 organizations in all (including business, community and labor organizations) endorsing it and working together to get it passed. Governor Gretchen Whitmer, along with all four living former governors of Michigan, signed a letter endorsing this important measure.

This policy victory reflects the culmination of a decade-long effort by many

organizations and is an incredible example of what the conservation community can accomplish when it pulls together. Proposal 1 had broad, bipartisan support from the start, and passed by a margin that was 12 percentage points higher than previous MNRTF measures! This historic accomplishment sends a clear message that Michiganders across the state value Michigan's public lands and waters and want to see them protected in perpetuity.

ABOVE: The beach near Saugatuck Harbor Natural Area, a project that was funded in part by the MNRTF. © Stephen Carmickle/TNC Photo Contest 2019.



© Nelson Woo/TNC Photo Contest 2019

PERMANENT FUNDING FOR PUBLIC LANDS

On July 22, 2020, the U.S. House of Representatives voted 310-107 (Michigan's delegation voted 11-3) to approve the Great American Outdoors Act, which fully funds the Land and Water Conservation Fund (LWCF) at \$900 million per year and makes critical investments in our national parks system and other public lands that support jobs, recreational opportunities and habitat protection.

The bill, which became law on August 4, is a major bipartisan success that includes years of hard work from TNC staff at the state and federal levels. Many protected places in Michigan have benefited from LWCF funding, including TNC's Big U.P. Deal, Sleeping Bear Dunes National Lakeshore, Pictured Rocks National Lakeshore (photo, above), the Detroit River International Wildlife Refuge and more. Now, Michigan lands, water and people are guaranteed to continue benefiting for many more years to come.

Restoration in Action

TNC's protected lands require continued management to maintain their conservation value, from controlling invasive species to sowing the seeds of native species. In 2020, COVID-19 limited our staff's capacity and ability to travel and do field work. Nevertheless, with increased safety measures, TNC's restoration crew was still able to improve the health of over 310 acres around the state, thanks in part to additional staff volunteers who pitched in to help collect prairie seeds and build boardwalks!

..... **310 acres restored and managed**



60 acres of prairie planted

16 prairie species collected

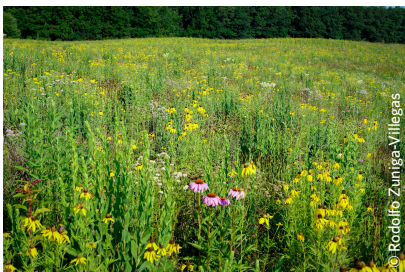
53 miles of trail built and managed

16 staff field days

53 volunteers

2,203 volunteer hours

2020 RESTORATION HIGHLIGHTS



FEN RESTORATION

We expanded our restoration impact at Grand River Fen to include **120 neighboring acres**, as part of a collaboration with the Michigan Dept. of Transportation (MDOT).



BOARDWALK BUILD

Staff and trustees volunteered to help build nearly **100 feet of new boardwalk** at the Nan Weston Preserve at Sharon Hollow.



SEED COLLECTION

Fourteen staff and trustee volunteers helped fill **nine 31-gallon bins** with native prairie plant seeds this fall, which were later used for prairie plantings.

A New Story for the Saginaw River Headwaters

Some places have many stories. The Saginaw River Headwaters Recreation Area is one of them. Long before they were part of the city of Saginaw, these 334 acres of open grassland, trees and wetlands were part of Ojibwe tribal lands, in a region where the Anishinaabe peoples often came together in council. Over the centuries, this location along the Saginaw River saw the logging industry boom and bust, followed by the rise of manufacturing. And on this very spot, the General Motors Malleable Iron plant operated for many years, until the company's bankruptcy. The GM plant was an integral part of the Saginaw community for decades, and many local residents worked there making machine parts during World War II. In 2011, the RACER Trust was formed to oversee the restoration of this and many other former industrial properties around the state.

Thanks to a collaboration of many partners, including the Michigan Department of Natural Resources (MDNR), Saginaw



Parks, and RACER Trust, TNC was able to help write a new story for this property. This September, we celebrated the groundbreaking of the Saginaw River Headwaters Recreation Area, livestreamed on Facebook (@MichiganDNR) and emceed by TNC's state director, Helen Taylor.

Speakers shared how this former industrial site is being restored to public green space along Saginaw River, bringing walking, biking, kayaking and other recreation opportunities to the city, while also providing habitat protection for this

important freshwater system. TNC played a key role in facilitating the property's purchase by the state of Michigan as well as in its restoration. We also helped set up the endowment and plans for its long-term maintenance, which will be overseen by Saginaw County Parks. Look for updates on this restoration in 2021! The recreation area is an exciting natural legacy for the community, and we're proud to be part of its story.

ABOVE: The new Saginaw River Headwaters Recreation Area. © Doug Coombe



Regenerating Native Species

A forest isn't just its tallest trees—what grows in their shade is just as important! That's the basis for the restoration strategy of underplanting: creating a healthier forest canopy by restoring underrepresented species to forests that have lost diversity.

For example, in a restoration area known as "Fish Camp" within the 23,318-acre Two Hearted River Forest Reserve, we planted approximately 16,000 seedlings of native white spruce and northern red oak in a stand that was mostly sugar and red maple. By rebuilding the numbers of these species, and increasing forest diversity, we can help make the forests more resilient to pests and pathogens, while also benefiting wildlife and improving carbon storage.

LEFT: Red oak and white spruce seedlings are carried in a satchel, ready to be planted. © Kevin Swanson/TNC

Tree by Tree: Connecting the Michigamme Highlands

In 2017, TNC protected Wilderness Lakes Reserve, over 6,000 acres of forests, wetlands and glacial lakes in the heart of the Michigamme Highlands—and that was just the beginning. We are nearing completion of another landmark conservation win: finalizing a deal that will add 4,840 adjacent acres to the reserve, nearly doubling its size. We anticipate that, through improved forest management practices, this could add approximately 140,000 metric tons of carbon storage to Wilderness Lakes Reserve over a 10-year period. All of the revenue TNC receives through carbon offset projects like this one goes back into advancing our forest restoration and conservation work.

Additional climate benefits are just one piece of what makes projects like this so successful. Located in Michigan's Upper Peninsula, the Michigamme Highlands contain over 1,100 square miles of rugged forestland and some of the most remote and beautiful wilderness in Michigan. This region also represents some of the most resilient land in Michigan: providing a range of habitats and topographies where plants and wildlife, from moose to migratory songbirds, can find shelter in a changing climate.

As we add to the network of protected lands across the Michigamme Highlands, we're building a "conservation corridor" that will connect existing conservation areas with healthy working forests like Wilderness Lakes Reserve. This effort is informed by an extensive, 10-year effort led by TNC to identify the network of "natural highways and neighborhoods" that spans the U.S.—the places where animals and plants will be able to thrive in a changing world.

RIGHT: Windswept trees at Wilderness Lakes Reserve. © Dietrich Ludwig



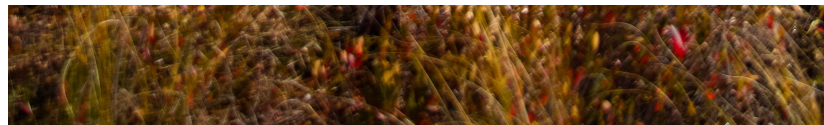
© Jason Whalen/Big Foot Media

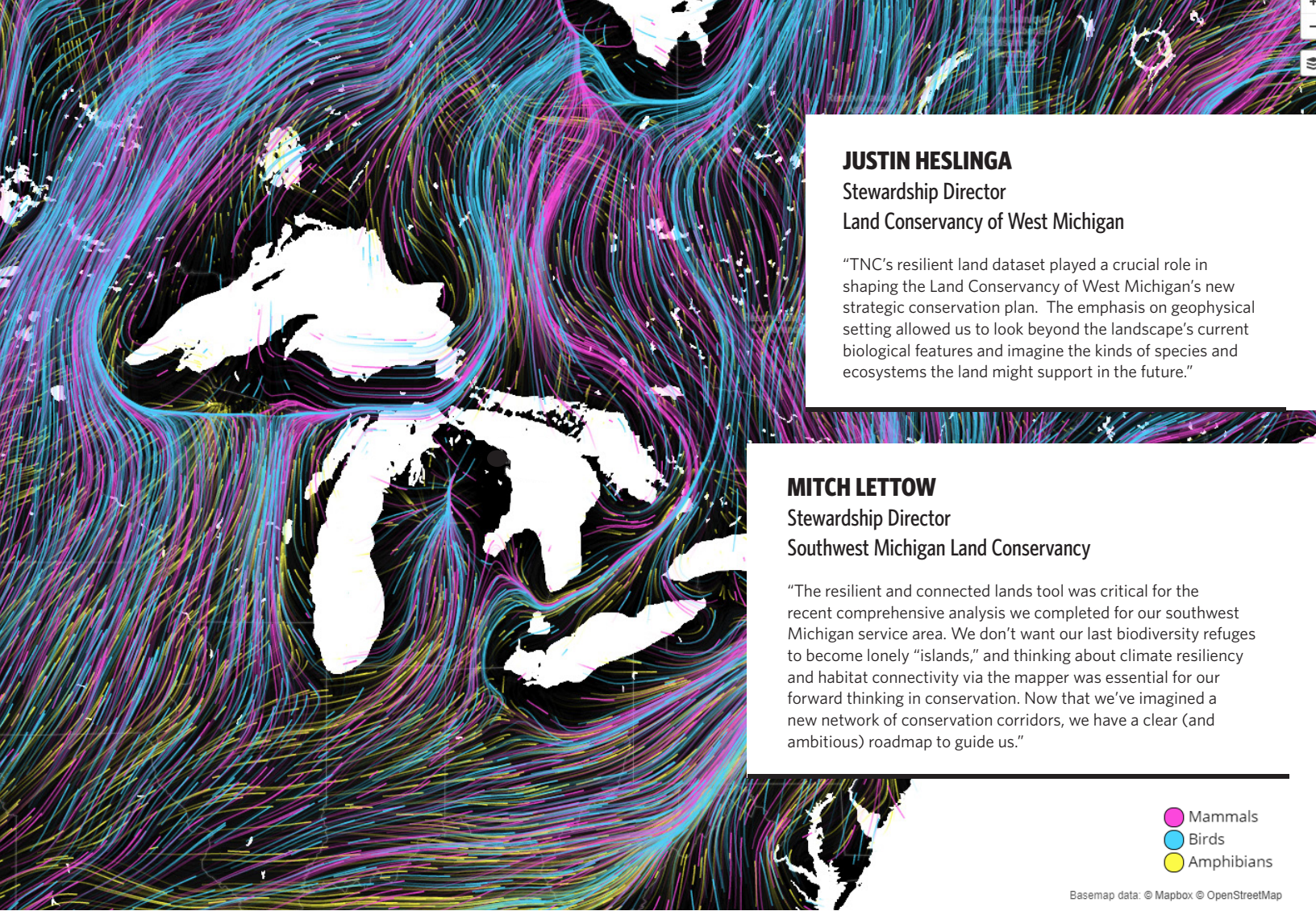
IN IT FOR THE LONG HAUL

Many of our highest priority land acquisition projects are connected to already protected lands. Sometimes these opportunities are quite small in terms of acreage but have outsized benefits for nature—like the newly protected piece of Zetterberg Preserve at Point Betsie. Filling in “gaps” in preserves like this is a key part of our long-term protection plans.

Often, our protection priorities connect to lands protected by partners, as well. This September, we also added 200 key acres at our Helmut and Candis Stern Preserve at Mt. Baldy in Keweenaw County (photo, left). Not only will the property expand the preserve's area, bringing it to over 1,700 acres, it will also create a connection between the preserve and the Lake Bailey Wildlife Sanctuary, for even greater conservation impact.

When it comes to land protection, tenacity is essential. Sometimes our preserve visions take many years of hard work to realize. But once protected, these special places are safeguarded forever.





JUSTIN HESLINGA
 Stewardship Director
 Land Conservancy of West Michigan

“TNC’s resilient land dataset played a crucial role in shaping the Land Conservancy of West Michigan’s new strategic conservation plan. The emphasis on geophysical setting allowed us to look beyond the landscape’s current biological features and imagine the kinds of species and ecosystems the land might support in the future.”

MITCH LETTOW
 Stewardship Director
 Southwest Michigan Land Conservancy

“The resilient and connected lands tool was critical for the recent comprehensive analysis we completed for our southwest Michigan service area. We don’t want our last biodiversity refuges to become lonely “islands,” and thinking about climate resiliency and habitat connectivity via the mapper was essential for our forward thinking in conservation. Now that we’ve imagined a new network of conservation corridors, we have a clear (and ambitious) roadmap to guide us.”

Stronger Together

TNC is one of 44 land trusts in Michigan that, together, manage hundreds of thousands of acres of protected lands. When we collaborate, it means even greater benefits to Michigan’s lands and waters. This year, we have continued to strengthen these vital partnerships, sharing the tools and findings of TNC’s resilient and connected network science with key partners like the Southwest Michigan Land Conservancy and Land Conservancy of West Michigan, which have both adopted this information into their planning, and the MDNR Land Strategy “Sprint Team,” which is in the process of updating Michigan’s Managed Public Land Strategy.

We have also partnered with Huron Pines, a regional nonprofit, to secure a conservation easement for the North Point property (photo, right) that it will manage—a first for this organization. While the property will

be owned by the Friends of Thunder Bay National Marine Sanctuary, a conservation easement allows Huron Pines to bring their land management and restoration expertise to this special place, creating a dynamic collaboration where each partner—including TNC—can best contribute its unique strengths.

Working with other organizations and agencies across Michigan toward shared goals allows TNC to facilitate collective progress toward what science tells us is the most sustainable path for Michigan’s lands and waters.

➤ ONLINE

View and interact with the resilient and connected lands tool at maps.tnc.org/resilientland.

ABOVE: TNC’s “Migrations in Motion” map demonstrates the average direction mammals, birds and amphibians need to move as the climate changes. Resilient and connected lands are crucial to these species’ migration corridors.
 © Dan Majka/TNC



CLIMATE



Leading on Climate

Nature is a vital climate solution, hiding in plain sight. In October 2017, TNC published groundbreaking science¹ that shows that by sustainably managing, restoring and protecting forests and other lands around the world, we can capture up to 11 gigatons of carbon emissions per year by 2030. That's a third of the carbon storage needed to put us on a sustainable path—equivalent to eliminating all the cars on the planet, twice over. Here in the Midwest, TNC is hard at work to advance these natural climate solutions with decision-makers.

For example, TNC helped to spotlight the role nature and policy can play in addressing the impacts of a changing climate at the Climate Leadership Conference in Detroit in March 2020. This summit brought business leaders together with government, academic and nonprofit professionals to discuss critical climate solutions. TNC was a lead sponsor and active participant, with a featured speech by Joe Fargione, TNC's director of science

for North America, and a round table discussion led by TNC on the potential of carbon capture, use and storage.

The conference is just one way TNC has engaged in tackling climate change at the state, regional and national levels. Mitigating and adapting to climate change is a deeply collaborative process, in which TNC is taking a central role—from our participation in the Industrial Innovation Initiative, a coalition that brings together key industrial and power companies, environmental organizations and state officials from Midwestern and Gulf Coast states to support a low-carbon future; to our work in the Carbon Capture Coalition, a national, nonpartisan coalition working to facilitate greater deployment of carbon-capture technology.

¹Griscom BW, et al. (2017). Natural climate solutions. *Proc Natl Acad Sci USA*. 114 (44).

ABOVE: Aerial view of forests and forested wetlands at McMahon Lake Preserve. © Jason Whalen/Fauna Creative



TNC's director of forestry, Kevin Swanson, is on the board of the Michigan Forest Biomaterials Institute, which, along with the MDNR, organized the event.

MASS TIMBER SUMMIT PROMOTES SUSTAINABLE SOLUTION

The first Michigan Mass Timber Summit, which took place virtually over three days in the fall, was a great success that drew over 200 participants interested in learning more about mass timber technology. This durable, lightweight, engineered wood offers a way to increase the “carbon sink” potential of new development, with even greater benefits possible when linked with sustainable forestry practices. TNC sponsored this event to help promote mass timber's potential to address these complementary goals. Mass timber is also part of Michigan's strategy to reach a net-zero carbon footprint by 2050. The event included virtual tours of Michigan State University's new \$100 million STEM Teaching and Learning Facility, the first building in Michigan to use mass timber.

Working Woodlands are *Thriving* Woodlands

Through our Working Woodlands program, TNC is connecting with private landowners across northern Michigan, Wisconsin and Minnesota to help them improve the health of forests with sustainable management practices and enrollment in carbon offset markets. By enrolling in carbon markets that set a high standard for forest management, TNC can help conservation-minded landowners conserve vital forests while also activating nature's ability to mitigate climate change impacts.

For example, through Working Woodlands, the Keweenaw Bay Indian Community (KBIC) is now partnering with the National Indian Carbon Coalition and TNC on a carbon project and Forest Stewardship Council (FSC) certification on 12,000 acres in the western Upper Peninsula. The sustainable forestry practices that will be implemented on these acres as a result will improve the resilience and diversity of the forest and boost its carbon storage potential, while also providing the KBIC with important economic and environmental benefits.



ABOVE: Brightly colored yellow birch in Michigan's Upper Peninsula. © Drew Kelly

The engagement and commitment of many different types of landowners is vital to TNC's goal of achieving a network of resilient and connected lands across Michigan's forests, and increasing the climate mitigation capacity of these landscapes. To date, we have commitments from or have enrolled properties totaling over 80,000 acres in the Working Woodlands program.

➔ ONLINE

For further information on Working Woodlands, visit nature.org/workingwoodlands.



© Jason Whalen/Fauna Creative

WORKSHOP HIGHLIGHTS GREAT LAKES RESILIENCE TOOLS

In November 2020, TNC led a workshop called, "Improving Coastal Water Quality in the Great Lakes: Decision Support Tools to Help Address Run-Off." The event was part of a nationwide series led by the National Oceanic and Atmospheric Administration (NOAA) and TNC, as part of the NOAA Water Initiative.

As its title suggests, the workshop focused on a suite of decision support tools designed to help community planners and land managers identify challenges and potential solutions for addressing run-off and coastal water quality issues throughout the region (the Open NSPECT tool, the Tipping Point Planner, and the National Weather Service Runoff Risk Forecast). TNC assisted with planning and outreach for the workshop, as part of our work to help Great Lakes communities build resilience to a changing climate.

WATER



Investing in Soil Health Outcomes

In 2020, TNC concluded our five-year Saginaw Bay Regional Conservation Partnership Program (RCPP) initiative, a high-profile effort that connected farmers with 2014 Farm Bill funding for on-farm conservation practices that protect soil health and water quality. Originally, we set out to bring 25,550 acres under new conservation practices—we surpassed that goal within three years, ultimately reaching well over 67,000 acres where conservation practices had been implemented (as of October 2020). This kept 26,600 pounds of phosphorus and 6,800 tons of sediment out of Michigan waters! The project represents a landmark success, not just in terms of its water quality impact, but also regarding the resulting partnerships and replicable methods.

In the months to come, we will build on this strong foundation to engage

new farmers in the region through ongoing programs such as our soil health lecture series. We are also advancing a Michigan-based extension of the national Soil Health Partnership, working with corn farmers to be able to provide localized proof of the impact of soil health practices like cover crops.

These practices support rich, healthy soil and improve water storage—helping to reduce harmful nutrient runoff in waterways while insulating farm yield from some of the impacts of climate change. The Saginaw Bay watershed includes 2.5 million acres of some of the most productive farmland in Michigan. It's a place worth protecting: for nature and for people.

ABOVE: Sugarbeet field under conservation practices in Saginaw Bay. © Jason Whalen/Fauna Creative

BELOW: TNC has installed 93 signs on 32 partner farms across the Saginaw Bay watershed to help drive engagement and interest in soil health practices, directly leading to 16 online connections in the first few months.



FARMER NETWORK GROWS

This year, we have continued to help Michigan State University’s Institute of Water Research (MSU-IWR) expand farmer-led watershed groups in the Saginaw Bay watershed, similar to the first one we helped launch in 2019. These community groups of farmers foster peer-to-peer mentorship and help grow interest in soil health practices. Drawing on lessons learned from the first group in Huron County that TNC helped establish, and engaging some of our past “Soil Health Hero” award winners, we are providing support and expertise to MSU-IWR as they establish three new groups. From helping to promote and recruit the groups, to assisting with a seven-part video series of farmer stories, to helping develop “farmer advocate” training materials, we’re playing to our strengths as conveners and subject-matter experts.

RIGHT (top): SKS Farm in Saginaw Bay Watershed. Photo taken in September 2018. © Jason Whalen/Fauna Creative



GETTING CREATIVE WITH CATTAILS

Since 2016, TNC has been collaborating on an innovative research and monitoring project to test the feasibility of recycling nutrients within a watershed by removing non-native, invasive cattails from wetlands and using them as a soil supplement on farms. This process moves the cattails from a place where they’re harmful to a place where they can benefit soil health, improving water quality in the process. Over three years, we’ve harvested these invasive cattails in the Shiawassee National Wildlife Refuge, from wetlands that have clearly benefited from their removal—providing healthier habitat for wetland birds and improved diversity of native plants.

The impacts of the cattails on the test farm were less clear, but overall it appears that they increase measures of soil health such as total organic carbon and ammonium nitrogen, a form of nitrogen that is less likely to be transported in runoff (where it can cause harmful algal blooms). The Cook Family Foundation supported our initial work in 2016, followed by major funding through a Michigan Conservation Innovation Grant from the U.S. Dept. of Agriculture Natural Resources Conservation Service. Additional funds came through awards to our research partners Loyola University of Chicago and the Shiawassee National Wildlife Refuge.

RIGHT (bottom): Cattails along the shoreline of an inland lake. © Richard Hamilton Smith



Water & Policy



MICHIGAN HYDROLOGICAL FRAMEWORK

In December, the Michigan Department of Environment, Great Lakes and Energy (EGLE) Water Use Advisory Council (which includes TNC representation) submitted recommendations to the state legislature that include a Michigan Hydrological Framework. The framework will function as a statewide “smart map” of our water resources, layering data to provide a comprehensive look at the entire freshwater system and help resource managers make more informed, systems-focused decisions. The report, and the work of this council, have important implications for TNC’s work to support science-based freshwater conservation in Michigan.

© Jason Whalen/Fauna Creative



WATER FOR ALL

In February 2020, TNC released a report entitled, “Safe and Affordable Water for All,” that provides a suite of policy recommendations designed to increase the ability of all Michigan

residents to access safe and affordable water services. The recommendations were informed by the TNC/ Michigan State University Water Fellows Program in 2019. The report lays a strong foundation for future work by TNC and others to improve freshwater outcomes for both people and nature, which we will continue to build on in the years to come, with initial support from the C.S. Mott Foundation. Read the full report at bit.ly/waterfellowsreport.

© Michael DL Jordan/dlp

The Promise of Blue Accounting

The Great Lakes are like nowhere else on Earth. This vast freshwater system—which holds 20% of the world’s available water supply—is incredibly important to both people and nature, which puts it at the nexus of work to solve some of our greatest global conservation challenges. One of those challenges: How can we collaborate effectively across a system that spans eight U.S. states and two Canadian provinces?

Blue Accounting was established to fill this gap—to bring federal, state, provincial and local agencies together with nonprofit organizations to work together, share data and make meaningful progress toward shared goals. As a region, we’ve invested billions of dollars to ensure that the Great Lakes can continue to support diverse and thriving ecosystems as well as a broad range of human uses and economic activities. But how do we know those investments are working? Blue Accounting was established so we could better track our progress toward these goals, measure our impact and help the Great Lakes’ many jurisdictional leaders come together to make informed, data-driven decisions.

In 2020, the phased transfer of the Blue Accounting initiative—from a program run jointly by the Great Lakes Commission (GLC) and TNC, to one fully run by GLC—was officially completed, concluding the five-year foundational phase that sets the stage for long term success. Since its inception, the value of this initiative has come to be widely acknowledged by leaders and partners in the Great Lakes basin. We developed a robust new online platform to manage and deliver innovative information tools and services, available to all at www.blueaccounting.org. This website has continued to add new tools and resources for partners across the basin.

The Blue Accounting approach has also been piloted through five projects that



work toward goals that all partners agree are vital—demonstrating how smart science, shared metrics and collaboration can address key Great Lakes issues. One pilot project that TNC has been closely involved in addresses aquatic invasive species (AIS). The AIS team has now developed a surveillance framework that will allow the many agencies and organizations working on this issue across the region to better coordinate our efforts and more rapidly respond to new threats. The other four pilots are drinking water sources, phosphorus runoff, maritime transportation and coastal wetlands.

ONLINE

Learn more about Blue Accounting at www.blueaccounting.org

ABOVE: Grass Bay Preserve in northern Michigan boasts spectacular coastal wetlands that are a paradise for Great Lakes wildflowers. © Jason Whalen/Big Foot Media

COASTAL WETLANDS DATA PARTNERSHIP

An unprecedented data-sharing agreement has been established with the U.S. Fish and Wildlife Service, allowing project data from the HabITS database to be incorporated into the Blue Accounting coastal wetlands database. This represents the first time a government agency has shared this data on coastal wetland projects and investments with a nonprofit, highlighting the strong partnerships TNC has built with agencies active around the Great Lakes. As a result, our coastal wetlands database is the most comprehensive in the region, enabling a better understanding of investments in coastal wetlands and more accurate count of conserved acres. This data will be managed going forward by GLC as part of Blue Accounting.

HOW THIS GARDEN GROWS

Last November, TNC completed the Sacred Heart Church demonstration project, a tangible example of the benefits of green stormwater infrastructure (GSI) in Detroit. Here, a garden has flourished where there was once only pavement! Through nature-based and engineered features, form meets function to enable this installation to manage almost 100% of runoff across nearly two acres, while cutting the church's costly drainage charge in half.

GSI projects such as this help to reduce the risk of surface flooding and an overwhelmed sewer system, as a changing climate leads to increasing rainfall, and as development continues across the city. This year, we added signage that explains how the garden functions, and released a video celebrating the project in collaboration with the church community. Watch the inspiring video at bit.ly/detroitshc.



Detroit Digs Into Natural Stormwater Solutions

Five years after launching TNC's Detroit Program, we're seeing GSI take hold as an important stormwater solution for the city. The Detroit Stormwater Hub, an online tool that TNC helped create in 2019, now provides a clear picture of how stormwater management projects are changing the landscape of Detroit—from green roofs, to residential rain gardens, to water harvesting projects. Combined, these projects are managing nearly 380 million gallons of runoff across 645 acres annually. TNC's project at Sacred Heart Church has helped lead the way, and now we're building on a groundswell of interest and support to scale up GSI in Detroit.

The use of the Stormwater Hub, now owned and managed by the City of Detroit, reflects

this momentum. For example, the Great Lakes Water Authority has incorporated its data into a new regional monitoring effort, and the Detroit Greenways Coalition has integrated it into their bike route map to better connect people with access to nature. TNC is also using the Stormwater Hub data to inform our next phase of work, which includes analyzing the economic incentives for and benefits of GSI.

In this next phase, we will also continue working with Eastern Market Corporation (EMC) and City departments to drive impactful, cost-effective GSI applications in Detroit's Eastern Market district and beyond. TNC will support new businesses in Eastern Market as they implement GSI projects that follow TNC's Stormwater

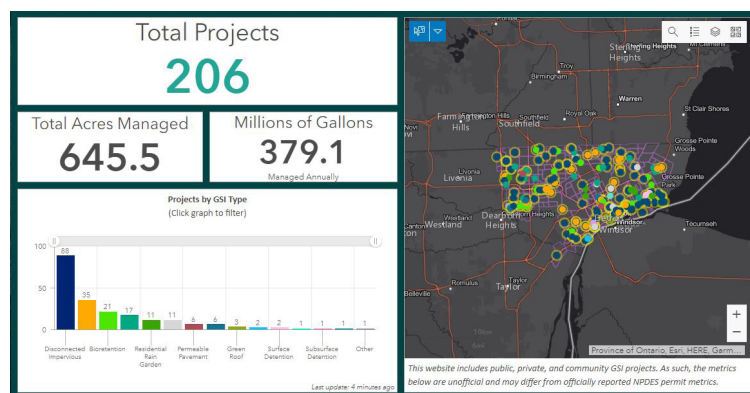
Management Network Plan. This will result in the first 2.5 acres of a GSI greenway system in Eastern Market, which will provide people who live, work and visit here with greenspace and recreational opportunities, as well as manage all the stormwater within the greenway's proposed 12.5-acre footprint.

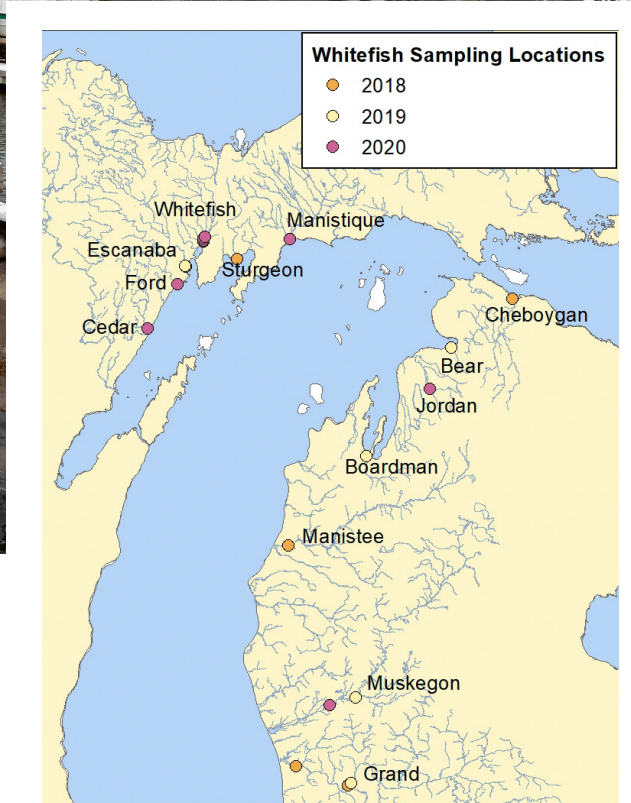


ONLINE

Visit the Stormwater Hub at www.detroitstormwater.org.

ABOVE (left): The new Sacred Heart Church GSI installation. © Jason Whalen/Fauna Creative
 ABOVE (top right): Sacred Heart Church's John Thorne waters the garden. © Jason Whalen/Fauna Creative
 ABOVE (inset): A screenshot of the Detroit Stormwater Hub as of Feb. 8, 2021.





Visualizing the Future of Fisheries

In the spring of 2020, TNC completed a project to map the lake-floor substrate (such as rock or sand) across the entire Great Lakes, drawing on navigation maps produced by 19th century ship crews. These crews used “sounding leads”—heavy weights with sticky tallow on the bottom—to manually collect samples and measure lake depth. Thanks to these historical resources, our new substrate map provides the most extensive and accurate information available to date.

This information helped us extrapolate, with more granularity, where cisco and whitefish are most likely to thrive around the Great Lakes. This will be critical to identifying where populations of these key species currently live and where restoration efforts could be most successful. Our data is already being employed by partners around the basin, providing a strong scientific basis that other projects can build upon—such as our recently completed project to map Great Lakes wetlands that this effort inspired.

Filling in scientific gaps like this is one of TNC’s strengths, and an important way we can contribute to Great Lakes conservation. In our work to support sustainable fisheries, we’re also testing approaches to control rusty crayfish, an invasive predator that eats fish eggs on spawning reefs, and publishing our findings. And, five years ago, we completed a landmark spawning reef restoration that continues to show benefits for fish egg survival—an approach that is now being replicated in other parts of the lakes.



ABOVE (map): As a next step to reversing the decline of whitefish in the Great Lakes, we’re working with tribal and state partners to search Lake Michigan rivers for signs of the tributary-spawning populations we hope to restore. This map shows whitefish sampling locations from 2018-2020.

ABOVE (top): Fisherman in Munising. © Jason Whalen/Fauna Creative; ABOVE (bottom): TNC staff during a spawning survey. © Matt Herbert/TNC

PEOPLE



Connecting in Place

Engaging people with nature lies at the heart of TNC's mission—a mission that is more important now than ever. One of the many things that 2020 has taught us is how vital nature is to our wellbeing. While socially distancing during the COVID-19 pandemic, people have looked to nature for rejuvenation. We've seen a dramatic increase in TNC visitors at our preserves, reflecting a nationwide increase in outdoor pursuits.

Protected lands like TNC's preserves represent one of the most visible and meaningful ways Michiganders can experience and benefit from nature. At some of our most popular nature preserves, TNC is enhancing and updating infrastructure—from parking lots to trail signage—to help people have fun and accessible experiences in Michigan's beautiful outdoors.

For example, this year we rolled out three new audio tours for visitors of some of our most popular preserves, including the Ross Coastal Plain Marsh Preserve, Echo Lake Nature Preserve and Carl A. Gerstacker Preserve at Dudley Bay, with more to come in 2021. These tours can be accessed at home or on location at nature.org/miexplore/

Given the increasing numbers of visitors, our preserve upgrades are especially important. They help prevent negative impacts to the habitats and wildlife that the preserves were established to protect, while still providing great experiences for people. Often, it's this personal connection to nature that drives further support for conservation—and a sustainable future for Michigan's lands and waters.



In 2020, TNC added a bike rack at the Mary Macdonald Preserve at Horseshoe Harbor, one of our most popular preserves with visitors.



We completed several important updates at McMahon Lake Preserve in the Upper Peninsula this fall, including 0.75 new miles of trail along a ridge with incredible views of the preserve, and two new overlooks!

Coming Together During COVID-19

In 2020, TNC shifted gears to adapt to pandemic safety restrictions and took our planned calendar of events online—ultimately holding 16 public events over the course of the year that allowed us to connect with members and supporters virtually. In fact, we were able to connect with even more folks than usual with large audiences—some of which totaled more than 100 people!—joining us live for events like our Gerstacker Preserve Tour, our “Mules in the Michigamme” event and our regular Conservation Café series with Helen Taylor as the featured speaker. Recordings of these events drew thousands of additional views on Facebook.

We were glad to hear from attendees that they found these programs engaging, informative and highly successful—we did too! The virtual setting allowed us to accommodate more people, from a greater geographic area, than would otherwise be able to attend, while providing people with an insider’s view of places they may not have the opportunity to visit otherwise. We were also glad to be able to add increased accessibility through the video and audio features of these events. Based on these successes, we plan to continue offering virtual events in the years to come.



ONLINE

Watch past webinars in the video section of our Facebook page at www.facebook.com/TNCMichigan



© Jason Whalen/Big Foot Media



© Michael Di Jordan/TNC

ABOVE: Fowler’s toad from our “Resilient at Ross” virtual preserve tour.

LEFT: Welcome sign at Nan Weston Nature Preserve at Sharon Hollow.

BELOW, LEFT: Northern white cedar at Echo Lake Nature Preserve.

BELOW, RIGHT: Houghton’s goldenrod from the virtual tour of Carl A. Gerstacker Preserve at Dudley Bay.



© Chris Cantway/TNC



© Chris Cantway/TNC



Our Commitment to DEI

The Nature Conservancy's commitment to diversity, equity and inclusion (DEI) is embedded in our Code of Conduct and is one of our Core Values. We recognize that conservation is best advanced by the leadership and contributions of people of widely diverse backgrounds, experiences and identities. What's more, equity in conservation is critical to success—we cannot achieve the necessary outcomes for people and nature without transparent and collaborative dialogue and partnership with the communities our work impacts.

Globally, TNC's efforts to support DEI are led by a global team headed up by James E. Page Jr., which is scaling up its work in light of the urgency and importance of these issues. Just a few examples include creating a new global position—director of equitable conservation—and the release of TNC's new Human Rights Guide in 2020.

In 2020, we have also continued efforts to inform and improve our work here on the

ground in Michigan. These include:

- Hiring a Midwest Human Resources & Diversity Liaison for TNC's Midwest Division, which includes Michigan.
- Launching a Michigan People Team to support DEI efforts internally.
- Following best practices for recruitment and hiring that are inclusive and equitable.
- Offering many trainings and professional opportunities to our staff in areas of DEI.

We love what we do here at TNC, and we want to do it well. By engaging explicitly in issues of diversity, equity and inclusion at all levels of the organization, TNC can develop conservation solutions that are impactful and truly durable, while also supporting a thriving TNC community.

TNC Opportunities Engage Emerging Conservation Leaders

In 2020, TNC expanded our capacity with positions that give emerging conservation leaders an opportunity to do a deep dive into conservation issues, while bringing a diversity of valuable skill sets to TNC's conservation work.

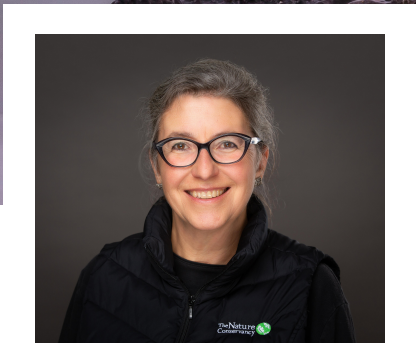
- Alex Verdeja is our inaugural Conservation Fellow. This fellowship is supported through a generous grant from the DTE Energy Foundation. Since October 2020, Alex has been supporting numerous conservation projects through deep dives into data and out in the field, including helping to survey for whitefish in the Muskegon River!
- Matt Jurjonas is the newest Bailey Conservation Fellow (a unique program sponsored by Menakka and Essel Bailey), supporting our coastal climate adaption work by studying how investments in Great Lakes projects benefit the wellbeing of the communities along the Great Lakes.
- Seth Meyers completed a one-year position as an AmeriCorps VISTA volunteer in Marquette, supporting TNC's natural climate solutions and forestry projects as we work toward a sustainable, climate-resilient forestry economy for the U.P. This position is generously supported by donors Jeff and Cynthia Littmann.
- Two students at Michigan State University's College of Law completed internships at TNC in 2020, through the Conservation Law Internship program supported by Jeff and Cynthia Littmann. Emily Michienzi provided research support for our water policy and fisheries work, and Steffen Mammen helped us with climate and urban water research, while gaining experience in the field of conservation.



Candace Calloway, TNC's Healthy Cities Program Associate, was selected for a fellowship with TNC's Racial Equity Leadership Lab program, a learning space for urban conservation leaders around issues of diversity, equity and inclusion, within TNC's North American Cities Network. This fellowship unpacks racial equity issues in conservation, and how TNC staff can support strategies that address these inequities, to improve long-term conservation outcomes and prevent inadvertent harm to the communities we work with.



INSET: © Matthew Mitchell, TOP: © Jason Whalen/Fauna Creative



Helen Taylor
State Director

Thank you!

In 2020, TNC completed an enormously successful campaign for conservation: **Michigan—It's in Our Nature**. In just six years, we raised over \$100 million and invested it in the conservation strategies that have led to the achievements highlighted on these pages and much, much more. To read more about our accomplishments during the campaign and the people who made it possible, please read our *2020 Giving to Michigan* publication at nature.org/ourmichigan.

We couldn't have accomplished this without our many generous, dedicated supporters. We also couldn't do it without the partners who work with us to achieve so much for conservation. In a challenging year, I've seen just how much our connection to nature, and to each other, can inspire us

all—and I'm inspired in turn by just how much we can accomplish together for people and nature as a result.

It's the strength of this conservation community that gives TNC our strength as an organization. As we look forward to the decade ahead, this incredible foundation will allow us to act more boldly for even greater results. Because of you, The Nature Conservancy will continue to achieve tangible, lasting impact for Michigan's precious lands, waters and wildlife.

Thank you!
Helen Taylor
Helen Taylor



STATE DIRECTOR

Helen Taylor

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Additional thanks to the board members whose terms ended in 2020: Dylan T. Brewer, PhD; Tracy Ann Melvin, Milton W. Rohwer and Joan B. Rose, PhD.

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