

Field Notes from Michigan Spring 2020 Newsletter

Sandhill cranes at Wildwing Lake in Kensington Metro Park in Milford, Michigan.



Piping plover chick at the Zetterberg Preserve at Point Betsie.



State Director, Helen Taylor

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Here's to New Beginnings

This spring, I have one message for you: **get outdoors.** Go somewhere you've loved since you were a child, or go somewhere you've never been before. Take a friend; take some photos. Breathe deeply. Refresh!

You don't have to go far. Even in a stroll around a city block, there are pockets of nature all around you, every day. Listen for the migrating birds coming home, and the ones that have stayed with us all winter. Look for the new green shoots of plants awakened by lengthening days. Attend a local science talk or read an article about the surprising ways nature can help the world solve problems.

At The Nature Conservancy in Michigan, we are already hard at work discovering solutions to some of the toughest challenges facing us today. But we can't do it alone. I invite you to join our campaign to raise \$95 million for conservation in Michigan. Achieving a sustainable future for Michigan will require greater, immediate and more strategic investments in the health of our lands and waters as well as the policies and practices that affect them.

Spring is seen as a time of renewal. It's an opportunity to remember what the natural world means to us, and why we want to protect its future. Here at The Nature Conservancy, you are helping us do just that. We have a big decade with ambitious goals ahead of us for conservation. Let's meet it with determination and hope.

Yours in conservation,

Helen Taylor

Michigan – It's in Our Nature

Our Campaign for Conservation

This is an exciting time for The Nature

Conservancy (TNC). We are tackling some of the toughest problems facing people and nature today, working to ensure a positive future for Michigan, our Great Lakes and our world.

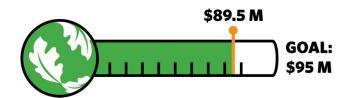
Through our campaign for conservation, we are prioritizing the most urgent environmental needs and focusing our efforts where our expertise can have the greatest impact.

We are bringing new ideas and innovation to conservation, from transformative land protection to best practices for soil health for farmers, logging for healthy forests and fisheries management. We use a pragmatic, non-partisan approach to show policymakers and leaders across the political spectrum how nature can provide effective solutions to major challenges like water quality, urban flooding and coastal resilience.

We're applying our science-based expertise to help businesses make better decisions. Our partnership and programs are all designed to address our planet's biggest challenges in four priority areas:

- Protecting Our Lands and Waters
- Providing Food and Water Sustainably
- Tackling Climate Change
- **Building Healthy Cities**

We invite you to walk this path with us.





TNC Roving Crew watching the sunset on Drummond Island.

Soil Health Heroes of Saginaw Valley

Learn more about our work in the Saginaw Bay watershed, including videos featuring this year's award winners, at nature.org/ saginawsoilhealth.



An example of healthy soil practices.

Saginaw Bay Watershed

n Michigan, TNC shares a common goal with farmers: a thriving and resilient Saginaw Valley. We envision a Saginaw Bay watershed where clean and abundant water—from the headwaters of its many tributaries, to the vast and beloved Bay itself—exists alongside a flourishing and sustainable agricultural system, rather than one succeeding at the cost of the other. It's a vision that depends on many people, working together.

That's why it brings us so much pride to be able to celebrate and showcase some of the outstanding agricultural conservation, and the people making it happen, at our biennial Saginaw Bay Agricultural Conservation Awards. This year's awards, in December 2019, were presented to seven outstanding farmers and partner organizations at a celebratory dinner, in front of an audience of over 150 guests. This event is part of almost a decade of work in the Saginaw Bay watershed, that in the last five years has connected with 140 cooperating farms to prevent over 5,000 tons of sediment and 21,600 pounds of phosphorus from washing into creeks and rivers. The farmer awardees shared how the practices they are using, such as cover crops and buffer strips, improve soil health on their farms and set them up for long term savings. "It's truly one of the most impactful things I have experienced in my job at The Nature Conservancy," says Mary Fales, Program Director. "Nothing is more powerful than hearing these farmers talk about how they care for the soil, and why it's important to steward their land for future generations."

Events like this help TNC connect with people who are less familiar with our work, recognize conservation efforts and raise awareness about the importance of investing in soil health on farms and its impact on water quality. They also help identify and support conservation leaders in the farming community. For example, two previous Saginaw Bay Agricultural Conservation Awards recipients are leading a new Thumb Area Farmer-Led Watershed Group, a growing network of farmers interested in conservation practices.



2019 SAGINAW BAY AGRICULTURAL AWARD DINNER: (1) CONSERVATION EXCELLENCE AWARD **Justin Krick**, Star of the West Milling Company; (2) Saginaw Bay Program Director, **Mary Fales**; (3) CONSERVATION INNOVATION AWARD **Ryan and Melissa Shaw**, SKS Farm; (4) CONSERVATION NEWCOMER AWARD **Nick Weisenberger**, Weisenberger Farms, LLC

FIRST "BAILEY FELLOW" SUPPORTS TNC SCIENCE



Mauri Liberati (center) with Essel (right) and Menakka (left) Bailey.

Mauri Liberati recently concluded her 18-month term as the first fellow for the Essel and Menakka Bailey Conservation Fellowship program, a unique opportunity for academic professionals at TNC. With other TNC scientists, she worked to develop measures of impact on human well-being and quality of life. She also worked on methods to help TNC track how our work is impacting both people and nature.

"I hope in three to five years that we are not only tracking the socio-economic indicators we identified but that we are already on our way towards documenting positive outcomes for people in our communities," says Mauri.

TNC is committed to supporting the next generation of conservation leaders. Generously supported by an endowment from Essel and Menakka Bailey, the Bailey Fellowship is one of several programs at TNC for early-career professionals in conservation law and science, including the VISTA opportunity highlighted on page 11, a conservation law internship in conjunction with Michigan State University and a new conservation fellowship for early career professionals from underrepresented groups that is launching this year.

Rebuilding Healthy Forests, from the Roots Up



Tree Swallow on Paper Birch.

Paw Paw Prairie Fen Preserve.

n the forests of the Upper Peninsula, the impacts of climate change are already visible in the decline of signature canopy tree species such as paper birch, quaking aspen, balsam fir and white spruce. TNC is working to stop this trend by restoring and sustaining canopy tree cover to increase forest health and resilience. This provides the wildlife of the U.P.-the wolves, the moose, the loon and many other iconic species-with abundant and connected habitat.

These practices also represent an important climate mitigation approach. Natural solutions such as climate-adapted tree planting have the potential to meet more than one-third of the world's need for carbon sequestration and storage to address the climate crisis.

This means more than just planting lots of trees. "One of our challenges is not only to capture but also to store carbon—basically keeping it 'trapped' inside the wood for a longer period of time," says TNC's Director of Forestry Kevin Swanson.



Kevin Swanson

Kevin continues: "While short-lived trees capture atmospheric carbon as effectively as longer-lived species, they don't keep carbon out of the atmosphere as long as species like white pine or red oak."

This work to build healthy forests includes a collaborative TNC effort across Minnesota, Wisconsin and Michigan, with state, tribal and federal partners as well as the Northern Institute of Applied Climate Science. In Michigan, we are working with the U.S. Forest Service, Michigan Department of Natural Resources and tribes including the Keweenaw Bay Indian Community and Sault Ste. Marie Tribe of Chippewa Indians to plant trees like red oak on their lands. We are also providing culturally significant white birch trees to tribal partners, to restore historic groves that have been lost.



Red Oak leaves

One important restoration strategy we are using is underplanting: creating a more diverse and varied forest canopy by restoring underrepresented species to understocked stands and failed tree plantations. For example, within a 4,000-acre restoration area, staff will plant approximately 50,000 saplings or seedlings of climate-adapted native species such as bur oak, northern red oak, white pine and yellow birch.

"We are urging forest managers to put more emphasis on climate and carbon, as well as benefit to wildlife," says Kevin. "For example, right now, only about 1% of forestland in the U.P. is in red oak, which is very important for black bears and other wildlife. By rebuilding these numbers and increasing forest diversity, we can help stop diseases from devastating entire stands the way beech bark disease did to beech trees here."

Currently, this effort only applies to protected lands owned by TNC or our partners, but we intend to expand this work soon to privately-owned lands. "We've got big goals, but there's a lot of talent and momentum behind them with our partners, and we know that if we work collaboratively, we can achieve them," Kevin says. "It's vital we make our forests healthier and more resilient for years to come."

VISTA VOLUNTEER JOINS THE FORESTRY TEAM

In Michigan, sustainable forest management is key to maintaining jobs and income as well as healthy, climate-resilient forests. TNC is working with the Michigan Forest Biomaterials Institute (MiFBI), an independent nonprofit committed to the responsible and sustainable use of Michigan forests, to attract producers of mass timber to our state. Mass timber includes climate-smart biomaterials such as cross-laminated timber, the hightech, low-carbon building material used to construct the new STEM Teaching and Learning Facility at Michigan State University.

Additionally, a Mass Timber Summit held at Michigan State University this spring, of which TNC is a sponsor, will help designers and builders learn how to better use wood to construct larger commercial buildings that can perform as well, or better, than similar steel or concrete buildings, while also serving to sink carbon.



TNC's work to advance a sustainable timber economy in the U.P. is supported by Seth Meyers, a Michigan Tech

University master's student in forestry who began a one-year placement at TNC this year. As a member of the AmeriCorps VISTA program, he has committed to a service-learning project that helps the community address economic challenges.

"The projects I am working on have the potential to impact millions of acres of forestland in this region," says Seth.



A Campaign to Celebrate Michigan's Public Lands

E arlier this year, TNC and partners launched a "Protect MI" informational and educational campaign, which is raising awareness of and appreciation for the value of public lands and outdoor recreation in Michigan.

The campaign represents an effort of six organizations: The Nature Conservancy, Heart of the Lakes, Michigan Environmental Council, Michigan United Conservation Clubs, Michigan Trails and Greenways Alliance and the Michigan Recreation & Park Association. These organizations have all individually worked to build support for the protection of public lands, but this level of collaboration is unprecedented. "The core of this campaign is reminding our neighbors of the role these lands play in our lives and encouraging them to not take what we have for granted," Rich says. "It's about recognizing the importance of public lands to every single one of us."

Regardless of where you come from, your financial means, your age or your abilities—public lands and spaces benefit all

Michiganders. Public lands strengthen our local economies, our quality of life and our physical and mental health. Most of all, they define us as a people and a state.



Help Us Get the Word Out

This educational campaign runs through mid-August and asks people to engage by sharing the places they love via social media. Start by signing up to be a public lands partner at **protectmi.org**. Then, share a photo, video or a story about a park or other public lands that are important to you or your family, to help raise awareness about the many ways the protection of Michigan's public lands and waters is personal and affects us all.

Public Lands & Recreation in Michigan

Whatever your reason for venturing outdoors, Michigan offers residents and visitors alike almost every outdoor activity imaginable. And, with over 7.5 million acres of public land in Michigan, you don't have to look far to find your place.

"There's a reason outdoor recreation is such a big part of our culture here in Michigan," says TNC's Director of Working Lands, Rich Bowman. "Our state has a rich natural heritage. One of the important ways we preserve that heritage is through Michigan's 7.5 million acres of public lands and waters that have been permanently protected and made available for public use."

Michigan, at the center of the Great Lakes, has the most public land of any state east of the Mississippi River, featuring thousands of miles of trails and over a hundred state parks. This also includes boat launches, picnic areas, natural areas, county parks, playgrounds, riverwalks, universally accessible facilities, game areas, swimming beaches and more.

"Public lands aren't just the woods up north," says Rich. "Many people don't realize that public lands are often just right around the corner, even part of our daily



TNC fall hike at Saugatuck Harbor Natural Area.

lives. The Detroit riverfront, your neighborhood park—these all fall under the umbrella of public lands."

Whether we live in a landlocked suburb or a historic fishing town, on a farm or in a bustling city center, public lands and spaces are an integral part of our lives. That means, when it comes to maintaining and protecting public lands, it's an issue close to home.

"Maybe you've been fishing the same river your whole life—maybe you worked with your neighbors to build a neighborhood park for your kids to play in," says Rich. "We'd like to see as many Michigan residents as possible become champions of public land and outdoor recreation. This is a big part of what makes Michigan, Michigan."

Business Leaders Convene on Climate

Wilderness Lakes Reserve, Baraga County.

he science is clear: in the coming decade, we need to all work together to reverse the impacts that increasing global temperature has made on our planet. Business can set an example by looking for opportunities to operate in a more sustainable manner. The Climate Leadership Conference in March—held this year in Detroit—brought business leaders together along with government, academic and nonprofit professionals to address the hard questions that we must answer, together.

TNC, a Platinum Sponsor of the conference, maintained a significant presence throughout the event. "For us, the conference represents an excellent way to engage leaders in discussing fact-based, economically viable information about climate action and naturebased solutions," says TNC's Director of Government Relations, Madhu Anderson. "Forums like this help us build important relationships and share the work TNC is doing around climate progress." The conference took place over three days and included a wide range of topics, such as the national CEO Climate Dialogue in which TNC has been deeply engaged. Joe Fargione, Director of Science for TNC's North America division, was a featured speaker. TNC also led a strategy session on the emerging conversation about carbon capture, utilization and storage—a potentially impactful emerging technology.

"Most experts agree that a low or net-zero carbon future will depend on the successful implementation of carbon capture, use and storage, so it's really important that the business community considers how to incorporate this technology," says Madhu.

This year, we were also glad to see natural climate solutions featured on the agenda. TNC is actively showing how Michigan's forests can be a part of the solution for climate impacts by demonstrating sustainable forestry practices on our working forest reserves that increase carbon sequestration and natural carbon storage as well as the health and diversity of the forests. For example, our 6,100-acre Wilderness Lakes Reserve alone will sequester an estimated 700,000 metric tons of additional carbon through these practices.

"Being featured at the **Climate Leadership** Conference really puts natural climate solutions on the map for the business community as an option to reduce greenhouse gas emissions. It also helps us get TNC's name out there as a leader in this work," Madhu says. "As we begin a new decade-a decade that will inform our planet's future-it is vital that we all engage in the climate conversation and work collaboratively toward solutions."



Joe Fargione, TNC lead scientist for North America.

What is Carbon Capture Technology?

When human activity releases carbon into the atmosphere, that carbon piles on to an already robust exchange of carbon between oceans, soils, forests and grasslands and throws it out of balance. An increasing number of people and industries are looking to carbon capture as a technology that could tip the scales back toward equilibrium.

Carbon capture technology reduces greenhouse gases by "capturing" carbon emissions from power plants, factories or other industrial facilities, and either using it for other purposes or storing it (hence the common term "carbon capture, utilization and storage," or CCUS).

At the national level, TNC is involved in the Carbon Capture Coalition, a nonpartisan coalition of organizations, corporations and more working to facilitate the operationalization of carbon capture technology. Michigan has one of the few carbon capture operations east of the Mississippi, and state stakeholders have been involved in regional and national forums on this topic.





T may be easy to assume the shade trees along a city street, or prairie grasses on a boulevard's median, are purely for decoration. But communities across the country are beginning to design city landscapes that serve a functional role as well, capturing and filtering rainwater that runs off streets, pavement and rooftops. This green stormwater infrastructure (GSI) reduces the burden on drainage systems and decreases the risk of polluted overflows, flooded streets and compromised water quality. It allows the city landscape itself to play a role in protecting our precious water resources as well as the health of residents.

"It's not just about water quality, though that's where it starts," says Valerie Strassberg, Detroit Program Director. "GSI can also make landscapes more accessible for people, contributing to community life by adding attractive green spaces to walk or play in that help keep our air clean and our cities cool."

Like any change, GSI needs a little help taking root. That's why TNC is building partnerships across the city of Detroit—a proving ground for this innovative approach—that have recently achieved two important successes.

Sacred Heart Church

Sacred Heart Church, a red-brick building with a single white bell-tower in Detroit's historic Eastern Market district, had its peaceful image disturbed this fall by the rumbling and beeping of yellow backhoes and bulldozers.

However, when construction ceased four months later, the church's parking lot was transformed: what was formerly a stretch of



GSI at Sacred Heart Church's parking lot.

gray asphalt is now designed around shallow engineered swales neatly topped with native plants. As the weather warms, these planted areas will become thriving gardens—gardens with a purpose.

These gardens incorporate elements of nature-based engineering, enabling them to capture and filter an estimated 1.3 million gallons of stormwater every year, with the ability to accommodate even more.

Because GSI projects like this help keep heavy rains from overwhelming drainage systems, it will also qualify the church for a credit on its drainage fee.

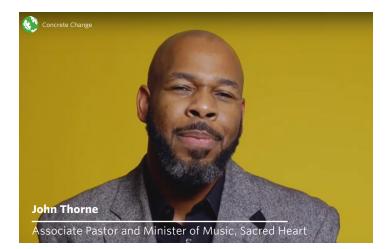
"It's a win-win scenario," Valerie says. "It protects water quality for both people and nature, while also helping to demonstrate GSI's benefits to others."

The involvement of the Sacred Heart Church community, 3,000 members strong, has been vital to this effort. "It's as much their project as it is ours," Valerie says. "They have a Garden Club that will help make sure the gardens thrive, and they're helping us tell the story of this work across the city. It's been a pleasure to share this success with them."

The project was also made possible thanks to the DTE Energy Foundation and Ralph C. Wilson, Jr., Foundation.



A Sacred Heart Church parishioner plants a shrub in the green space.



"We only live one life, and we only have one Earth. So what we are introducing here to this community, is a process of finding ways **to conserve the great gift of water** that we've been given." – John Thorne



CONCRETE CHANGE - SACRED HEART CHURCH Middle and bottom: Snippets from the video demonstrate the benefits of green stormwater infrastructure at Detroit's historic Sacred Heart Church. Watch the whole video at: **www.nature.org/detroit**

Detroit Stormwater Hub

Part of making sure that projects like Sacred Heart Church's have the greatest impact is the ability to see how they fit into the big picture. The new online Detroit Stormwater Hub, launched in 2019, is now filling what was a significant data gap around citywide GSI progress.

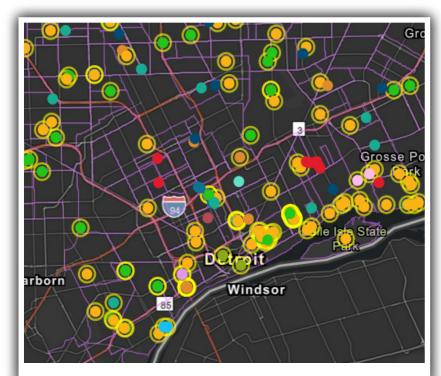
"A lot of people came together to make this happen—City staff, philanthropic foundations, academic institutions, community organizations, and more," says Sam Haapaniemi, Project Manager. "We wanted to create a tool that would be useful to the whole community. TNC felt very lucky to project manage such an important, collaborative effort."

The Hub, which was developed thanks to the support of the Erb Family Foundation, is now owned and managed by the Detroit Water and Sewerage Department.

People can now access a database of GSI resources as well as upload information on their own GSI projects to the Hub, helping to paint a clearer picture of trends and successes in GSI across Detroit.

As of January, less than two months after launch, there were already 180 projects listed on the site, reflecting over 220 million gallons of rainwater managed every year.

"The Hub really has the potential to be a game-changer for GSI in Detroit," Sam says. "It will allow the City to see the scale of GSI projects being completed and residents to easily find GSI resources, and it will certainly be a tool for TNC as we plan future work in Detroit."



Visit **detroitstormwater.org** to access a map and database of green stormwater infrastructure (GSI) projects in Detroit with locations, images and project information.



Connect with Nature

ATTEND ONE OF OUR UPCOMING SPRING EVENTS!

IMPORTANT NOTE: We have been closely monitoring the developments of COVID-19. The health, comfort and safety of our guests is our top priority and we want to ensure an inclusive experience for all invited. To that end, we have made the decision to cancel events and group preserve work days taking place through May 11, and possibly further as the situation develops. This includes our Science Talks lectures, Conservation Café luncheons, and Work Days at Ives Road Fen. Thank you for your patience and understanding.

We encourage you to sign-up for email at **nature.org/greatplaces** to receive the latest information and announcements.

For questions and RSVP information on our events, visit **nature.org/mievents** or contact Mary Louks at **517-316-2260.**

May 16 | Field Trip at Nan Weston Nature Preserve and Sharon Mills Park Join us with Washtenaw Parks to learn about woodland and wetland communities and the restoration of farm fields to native prairies. Young and old will delight in the blooming wildflowers, slithering salamanders, and singing amphibians. Plus, arrive early for a docent led historical tour!

May 16 | Bird Walk and Work Day at Ives Road Fen

Join us with MI Birds for a guided walk through the fen and floodplain along the River Raisin as we search for migratory songbirds and waterfowl. We'll then cut shrubs and pull knapweed from the planted prairie. Cookies and cold drinks included!

June 4-7 | Aldo Leopold Festival

Activities include paddling excursions, orchid and wildflower tours, birding trips, presentations and many other nature based activities. Come experience the woods and water that formed Leopold's early impressions of the natural world as we honor the mark he made on conservation and the environment.

Celebrate Earth Day!

This year happens to be the 50th anniversary of Earth Day. On **April 22**, celebrate your planet by getting outdoors! Here are some ideas:

- Attend an Earth Day event near you
- Plant a native tree
- Visit one of TNC's preserves: nature. org/mipreserves
- Raise your voice! Sign a pledge for nature at nature.org/earthday
- Take some binoculars out birdwatching
- Go for a walk with friends or family

Join the Conversation!

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nature.org/greatplaces

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Leave a Legacy For Nature

G ifts from Legacy Club members are essential to our conservation work. In Michigan, the support of Legacy Club members has helped the Conservancy to preserve more than 389,000 acres, including fens and savannas in the south to boreal forests in the north. The Legacy Club is a special group of people who have chosen to translate their passion and caring for the natural world into a gift that provides a lasting legacy of conservation results. Legacy Club members come from a range of diverse backgrounds and walks of life, but are bound together by their love for nature and their desire to conserve our lands and waters for future generations.

Members receive a subscription to The Nature Conservancy magazine, our award-winning publication; the semiannual newsletter, Legacy, which features additional news and insights into how we do our work; the Conservancy's annual report; and invitation to travel to domestic and international locations that offer unique and upclose glimpses of our projects.



For more information on becoming a Legacy Club member and supporting The Nature Conservancy, contact Paul Beczkiewicz at (517) 316-2269.