

central & western new york
Nature

SPRING/SUMMER 2015



New Discoveries
The world we depend on depends on us

A Message from Sue and Jim

The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends. Our science solves complicated conservation challenges. Our collaborative approach helps find common ground with communities, businesses, landowners and other partners. And our constant push to increase the pace and scale of conservation gets things done.

To be durable, conservation needs a broad constituency, and that means we need to focus not just on conservation outcomes, but on the conditions necessary to maintain the conservation values of a place, practice or policy—forever.

At The Nature Conservancy, we envision a world where the diversity of life thrives, and people act to conserve nature for its own sake and for its ability to fulfill our needs and enrich our lives.

Since 1957, The Nature Conservancy has been working strategically and collaboratively to protect the lands and waters of Central & Western New York. This newsletter reports on some of our results over the last few months, including the protection of land and water at Point Peninsula, the development of new tools to help communities deal with flooding and the impacts of climate change, and efforts to share our expertise with, and learn from, our larger global community.

Please know how critically important your contributions are to protecting New York's natural lands and waters. Everywhere we work, financial capacity is the limiting factor. With your help, we can continue to deliver tangible, lasting conservation results.

Thank you for your support, and please know how much we appreciate it!



Board Chair Sue van der Stricht and Executive Director Jim Howe.
© STACY WAIS/TNC

But the reality is there is no past tense of “conserve.” Every generation will have conservation challenges, and there will be new threats—such as climate change or invasive species—even the places we consider protected.

Sue van der Stricht
Sue van der Stricht
Board Chair

Jim Howe
Jim Howe
Executive Director

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11.6 trees preserved for the future



33.6 lbs water-borne waste not created



546.5 lbs solid waste not generated



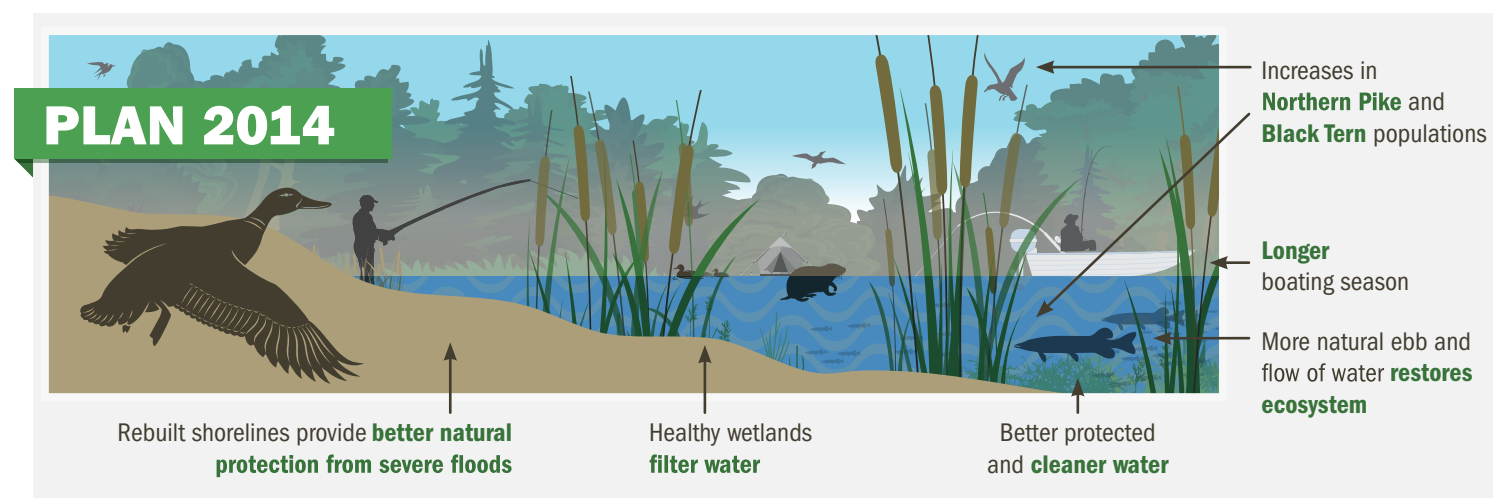
1,071 lbs net greenhouse gases prevented

PLAN 2014

TAKE ACTION »

Get the latest Plan 2014 news and show your support at SupportPlan2014.org

Plan 2014 is the greatest opportunity in our lifetime to restore a Great Lake and help shoreline communities. The old system of management is slowly killing Lake Ontario and the St. Lawrence River. Plan 2014 will reverse this damage for the environment, property owners and industries – like tourism and hunting, fishing, wildlife viewing and recreational boating – that rely on a healthy lake and river.



PLAN 2014 BY THE NUMBERS



\$5.3
MILLION

Annual increase in clean Hydro-electric power.

Acres of wetlands restored, the largest project in the U.S. outside of the Everglades.

64,000



\$9.1
MILLION

Annual increase to New York's economy through hunting, fishing & wildlife business.

Taxpayer dollars used to implement Plan 2014.

\$0





Rare orchid discovered at Chaumont Barrens

Great Plains ladies-tresses finding is New York State first

Naturalist Daniel Brunton was on his way home to Ottawa, Ontario, from a workshop in Oswego, N.Y., when he turned into the parking lot of The Nature Conservancy's Chaumont Barrens preserve. He was looking for something special. The September sun was low in the sky, but he had to try.

After all, he knew the habitat at Chaumont was similar to that of the Burnt Lands Alvar in eastern Ontario where more than 500 Great Plains ladies-tresses orchids were found just a year prior, on a September day much like this one. In fact, the habitats were so similar that the scientist who discovered the population in eastern Ontario, Paul Catling of Agriculture Canada, had travelled to Jefferson County the day after his discovery to look for the orchids at Chaumont. He found none.

Great Plains ladies-tresses (*Spiranthes magnicamporum*) is a western prairie species rare in parts of its range and found east of the Great Lakes only in isolated populations. The closest to New York where it had been found previously in the United States was southern Pennsylvania (over a century ago) and western Ohio. Still, Brunton was optimistic. He got out of the car knowing exactly what he was looking for.

"I was looking for a tall *Spiranthes* growing with prairie grasses in an area with lots of exposed limestone bedrock," Brunton says. "The orchids would be approaching or have just come into full flower. They look a lot like the more common nodding ladies-tresses (*S. cernua*) but start flowering just as the nodding ladies-tresses are finishing."

"Once you're hooked on orchids, you're finished" —Eric Hansen, *Orchid Fever*

But when it comes to finding these flowers knowing what to smell for is just as important as knowing what to look for, so Brunton sniffed the early autumn air for their strong vanilla-scented perfume. Conveniently, Great Plains ladies-tresses have an intoxicating aroma compared to nodding ladies-tresses, which are typically scentless.

After just 15 minutes of searching, there it was—right out in the open.

A week later, New York field botanists Steve Daniel and Anne Johnson visited the site with Nature Conservancy Trustee Deb Koen. The group found a separate, larger population of some 90 plants. A week after that, Ontario field botanist Holly Bickerton found about 50 flowering plants at the original site.

In just one month's time, naturalists and botanists from two countries found over 200 individual orchids of a species never before observed in New York.

"We've always known that Chaumont Barrens is a remarkable place. It's one of the last and best examples of alvar grasslands in the world, and home to many unusual species," says Jim Howe, The Nature Conservancy's executive director in Central and Western New York. "It's exciting to know that places we protected long ago still hold surprises."

PHOTOS: *Opposite page* - Great Plains ladies-tresses © DANIEL BRUNTON; Chaumont Barrens Preserve © CHRIS M MORRIS. *This page, clockwise top to bottom* - Volunteers © MARY RIPKA/TNC; Black tern © KEN STURM USFWS; Red fox © ANTHONY ADAMS.



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ROCHESTER OFFICE • 585-546-8030

Jim Howe, *Executive Director*, x7926
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 Kristin France, *Senior Conservation Scientist*, 854-554-3404
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Get Outside

Connect with Nature in Central & Western New York
 Sign up now for a hike, nature walk or volunteer activity. To register and for more information and programs, visit nature.org/cwnyevents

HIKES & WALKS

Mystery Plants at Malloryville

Sun., May 31, 10 am - 12 pm

Wild Edibles at Thousand Acre Swamp

Sat., June 20, 10 am - 12 pm

Wonders of Eldridge Wilderness

Sat., July 11, 10 am - 12 pm

Paddle Canadice Lake

Sat., July 25, 9 am - 1 pm

Sounds of the Night at Thousand Acre Swamp

Friday, July 31, 8 pm - 9:30 pm

VOLUNTEER OPPORTUNITIES

El Dorado Work Day

Sat., May 30, 9:30 am - 12 pm

Blue Lupine Restoration at Rome Sand Plains

Wed., June 10, 9:30 am - 12 pm

French Creek Work Day

Sat., June 13, 9:30 am - 12 pm

Water Chestnut Hand Pull in Pulaski

Sat., July 11, 8:30 am - 11 am



DID YOU KNOW »

Orchids are known for their highly specialized pollination biology. Species of *Spiranthes*, for instance, have a spiral arrangement of flowers that evolved as an adaptation to pollination by long-tongued bees. Their flowers are functionally male when they first open and become female as they age. This process begins from the base, resulting in female flowers on the top and male flowers on the bottom.



Clockwise from left: Snowy owl © GUNTHER MATSCHKE; Close view of a short-eared owl. © GUY BONNIVIER/TNC; Northern harrier. © HARVEY PAYNE.



More Coastal Habitat Protected at Point Peninsula

New lands and waters important to birds, fish and people

For most of its New York shoreline, Lake Ontario's deep, blue waters wash up against sands and soils deposited by the glaciers. But at the northeast corner of the lake, in Jefferson County, the shoreline becomes a jagged tangle of peninsulas, points and promontories carved out of limestone bedrock.

One of the largest of these natural features is Point Peninsula, a triangular wedge of land that juts out into the lake and encompasses several square miles of flat, windswept terrain. Point Peninsula is one of the most important winter concentration areas in the entire Northeast for Arctic-breeding raptors like rough-legged hawks and short-eared owls.

According to an article by former Nature Conservancy staff member Gerry Smith in the journal *Kingbird*, winter surveys at Point Peninsula have documented a sizeable array of birds of prey, including single-day maximums of 130 rough-legged hawks, 57 northern harriers, 33 red-tailed hawks, 30 short-eared owls, 12 long-eared owls, 10 great horned owls, eight northern shrikes, six American kestrels, six snowy owls and two northern saw-whet owls.

Three factors make Point Peninsula outstanding habitat for wintering raptors. First, most of the lands on the peninsula are hayfields that are havens for small mammals, a principal food source for the birds. Second, the strong winds blowing off Lake Ontario keep snow from accumulating on the peninsula's fields, providing

raptors with exceptional hunting conditions. Third, the area is fairly remote and thereby offers raptors relatively undisturbed hunting and roosting areas.

In 2002, The Nature Conservancy acquired a critical 1,001-acre property on Point Peninsula that is now the centerpiece of the New York State Department of Environmental Conservation's (NYS DEC) Point Peninsula Wildlife Management Area (WMA). The WMA includes 4,000 feet of shoreline on Lake Ontario, a 305-acre wetland and nearly 700 acres of hayfield and meadow.

This winter, the Conservancy expanded its conservation work at Point Peninsula with the purchase of 38 acres of grassland, wetlands and woodlands, including 600 feet of shoreline on Lake Ontario. This property helps consolidate NYS DEC's boundaries and includes road frontage that could have been developed in ways that disrupt conservation values.

"We're excited to be safeguarding more habitat at Point Peninsula, not only for birds and other wildlife, but for the people who enjoy them," says Chapter Director Jim Howe.

NYS DEC will ultimately acquire the lands from The Nature Conservancy and add them to this exceptional protected area. "This acquisition improves our ability to manage the WMA effectively, by consolidating lands into a larger, more contiguous block for wildlife," says Judy Drabicki, NYS DEC's Region 6 Director.

Working Woodlands

New program rewards landowners for preserving forests

Do you know that the destruction of forests contributes more to global greenhouse gas emissions than all the cars, trucks, planes, trains and ships in the world combined? In New York, we are fortunate that forests cover 63 percent of our lands with 18.9 million acres of woodlands. Not only do forests keep the air and water clean, contribute to our quality of life and provide a livelihood for thousands of people each year, trees also remove significant carbon emissions from the air.

Working Woodlands, a new program in New York modeled after the Conservancy's successful forest conservation program in Pennsylvania, encourages landowners to preserve forests by rewarding them for the carbon their trees capture and store.

Through Working Woodlands, our forest ecologists work with landowners to analyze the ecological potential of their properties—as wildlife habitat and for fighting climate change. A sustainable forest management plan is then created for the property. The plan includes Forest Stewardship Council (FSC) forest certification along with the creation of carbon credits—a financial tool that

assigns a value to the service that trees provide by removing carbon dioxide from the atmosphere.

FSC certification and the sale of carbon credits offer financial benefits for the landowner. Timber with an FSC certification can sometimes be sold at a premium, and the carbon credits create an added source of income for the landowner. Corporations, small businesses and even airline travelers can buy carbon credits through a variety of voluntary markets where carbon credits are bought and sold to offset the environmental damage caused by greenhouse gas emissions.

For landowners who choose to participate in the program, Working Woodlands offers one way they can derive value from their property while ensuring that the forest remains healthy and productive for future generations.

EXPLORE »

Discover more about our forest work at nature.org/nyforests



Clockwise from top: Conservation Ecologist Chris Zimmerman © TNC; Ontario County Park - Naples, NY © MATHEW LEVINE/TNC; French Creek Preserve © MATHEW LEVINE/TNC.



Creating Flood Smart Communities in Monroe County

Harnessing nature to save lives and property

Where the Village of Hilton's fire hall once stood is now a lush green space protected in perpetuity. Its soil, shrubs, grasses and flowers absorb rain and snowmelt, feeding underground aquifers and recharging the water supply. The fire hall was relocated out of the floodplain to higher ground in 2009. Now, when floods strike, emergency responders can be out responding to the needs of the community rather than piling up sandbags to save their fire hall from rising waters.

Flooding is a major and persistent problem in Hilton and other parts of Monroe County. But a new project seeks to change all that. Flood Smart Communities is an innovative collaboration between The Nature Conservancy, Genesee/Finger Lakes Regional Planning Council, University of Buffalo's Regional Institute and SUNY ESF funded by the U.S. Department of Commerce and NOAA. Project participants from three communities—Hilton, the Town of Greece and the Town of Parma—are assessing their current flooding vulnerability and the array of actions they can take to protect themselves.

"These communities regularly experience flooding," says Stevie Adams, The Nature Conservancy's freshwater practitioner in Central and Western New York.

"They are connected by streams that flow to the wetland complex of the Braddock Bay Fish and Wildlife Management Area." The communities also represent a diversity of land uses—from densely populated and commercially developed to rural and agricultural.

What's more, all three communities have a strong history of collaboration: "They've been working together on stormwater management already," Adams says. "The Nature Conservancy's role is to help them create solutions that will reduce their vulnerability to flooding even further."

Over the past few months, Adams and her project team have been working alongside representatives from each of the municipalities to answer critical questions about what the project will do. "Their experiences, knowledge and ideas have added so much depth and color to the process and to the realm of solutions," she says.

Now, the team is moving into the community study portion of the project. For this phase, they will employ cutting-edge techniques that combine economics, social science, crowd-sourced data, and mapping and analysis tools to understand what's at risk and the types of solutions the community can and will support.

After we collect and analyze data on the economic and social costs of flooding, these communities will have a shared Floodplain Action Plan to help them prioritize the most critical actions. Those could include protecting farmland, acquiring floodplain areas, installing larger culverts or relocating structures. "We're deploying the resources and knowledge of the community for flood damage prevention instead of costly disaster recovery," Adams says.



Preventing flooding in Hilton fire hall © MIKE LISSOW.

THIS JUST IN! »

Governor Cuomo and the New York legislature wrapped up the state budget earlier this spring, and there was much good news for conservation. The Environmental Protection Fund, or EPF, increased by \$15 million to \$177 million and includes funding to expand *Flood Smart Communities* to the Susquehanna basin in the Southern Tier, with a focus on the Chemung/Cohocton River system.

NEW CONSERVATION TOOLS FOR A CHANGING NEW YORK

Navigating toward a climate-ready future

Climate change will have wide-ranging impacts for New York. Increased risk of droughts and floods, rising sea levels, storm surge and agricultural losses are just a few. As a society, we need to continue doing all we can to reduce emissions of CO2 and promote sustainability. But we also need to make sure that people and nature are able to adapt and adjust to a climate that could be very different.

Decision makers at every level of government urgently need explicit, concrete recommendations for adaptation strategies. Whether siting, building or repairing infrastructure, restoring floodplains or protecting migration corridors for wildlife, we need reliable, cohesive data to make the best long-term decisions for our communities.

For years, The Nature Conservancy has been navigating changing landscapes and figuring out how to help species and ecosystems adapt or move as needed, while also maintaining the natural services nature provides for people. Now, with funding from the New York State Energy Research and Development Authority (NYSERDA), we are developing an online, interactive toolkit designed to further improve decision-making across the state.

"This tool will allow everyone from public agencies to real estate developers, foresters to policy-makers and city and town planners to access data and analyses that can help them make informed decisions," says Kristin France, senior conservation scientist with The Nature Conservancy in Central and Western New York. Through interactive maps

and graphics, the database will help identify what places to protect, what areas need restoration, where to focus on connecting habitats and where it is possible to eliminate threats like pollution or invasive species that reduce resilience to climate change.

While an array of useful guidance documents and relevant datasets already exist to support climate adaptation, they are often not easily accessible to practitioners. "We're designing this tool for the people who need this information most," France explains. "We want to make sure the final product will be useful to them."

The project also involves collaboration with SUNY ESF and the NY Natural Heritage Program to develop new statewide maps and datasets on future species ranges and projected land-use changes that will help support smart decision-making. Eventually, digital tools will allow users to view and export maps and data along with recommendations and resources for implementing adaptation strategies.

"Our goal is to identify the most important lands and waters to protect, restore, connect or shield—not just from climate change but from projected future development and other threats," says France. "It's about ensuring that our critical natural systems are protected as the planet and New York change."

Learn more at nature.org/nyclimate



Tug Hill Conservation Area. © TNC. BACKGROUND: Wind farm. © KENT MASON.

One World, One Conservancy

Director of Conservation Darran Crabtree completes Coda Fellowship in Tanzania

The Nature Conservancy's Coda Global Fellows Program mobilizes staff capacity and expertise through short-term assignments to meet the organization's greatest global needs while providing staff with opportunities to contribute and learn beyond their home program.

This winter, Director of Conservation Darran Crabtree completed a six-month fellowship with the Conservancy's Africa Program to develop a monitoring framework that will help address issues affecting the environment and human health at Lake Tanganyika, one of Africa's Rift lakes.

Why did you focus on Lake Tanganyika and the Tuungane project for your fellowship?

The Central and Western New York Chapter has had a special focus on Lake Tanganyika for years, and I've always been fascinated by its size and diversity. It's the world's longest lake, holds 17 percent of our planet's fresh water and is home to more than 300 fish species. And the Tuungane project is one of the Conservancy's first triple-bottom line projects—measuring its success based on environmental, social and economic results.

What was the goal of your fellowship?

Tuungane is a remarkable project but it was missing something important: a solid monitoring plan to ensure that the strategies designed are actually helping people and nature. Are our approaches actually working? Are we having the ecological, economic and sociological impact we're trying for with regard to fisheries management, human health and governance?

Why does ecological monitoring matter?

To figure out if a project is working, you need indicators of success. An ecological example of this can be found by looking at fisheries practices in nearshore areas. In these areas, we have a goal of reducing the use of illegal nets with small mesh that catch every species in every life stage. A success indicator would be reported use of such nets going down, or species and numbers of fish going up. For our human health goals, monitoring might include things like contraceptive prevalence rates, child mortality rates or even the type of house material used in a village.

Many people will never visit Lake Tanganyika. What would you like them to know most about our work there?

This was the most remote place I've ever been, and yet I saw evidence of that changing quickly. The natural system is in outstanding shape, but roads and cell phone towers are going up daily. As this area develops, there's a chance to avoid some of the mistakes we made in our Great Lakes—like introducing non-native creatures. The writing is on the wall; things are changing. But there's a chance to ensure nature and people continue to work compatibly.

How did your fellowship change your perspective on our work in Central & Western New York?

My fellowship reminded me of the importance of community engagement. The experience re-enforced that community-based work is a core strength of the Conservancy's—globally and locally. Our *Flood Smart Communities* project is a prime example of that here in Central and Western New York. It also reaffirmed for me that we have to commit to even more engagement at the town and stakeholder level, get to know the players and find out what their problems are. Basically, we've got to listen more.

What was one of the most memorable moments of your trip?

Working in Africa is unpredictable at times, and helping people with basic needs—like medical care—always comes first.

It was the last day of the trip, and we were 12 hours from where we needed to be. Packed with gear and people, our boat leapfrogged high waves up the coast. Finally we docked into a chaotic scene of fishing boats coming in with their catches. Then we all piled into the one vehicle—our original crew plus the wife of a village elder who was sick and needed a ride to get treatment, all of our gear, a live chicken, a live duck and 100 fresh dead fish. It was 97 degrees. But we tied the fish to front of the Land Rover and began the journey.

I'm glad to say that in the end, we all arrived safely—even the duck.



Clockwise from left: Villagers wait for fishermen to bring back their catch to sell to the local market in the village of Katumbi on Lake Tanganyika in Tanzania. © AMI VITALE; A young village boy plays among the fishing boats on the shore of Lake Tanganyika in Tanzania. © AMI VITALE; Village women smoke fish they've purchased from local fisherman and then resell the fish at local markets in the village of Katumbi on Lake Tanganyika in Tanzania. © AMI VITALE.



Tuungane Project: Uniting People and Nature

Tuungane is pronounced *TOO-un-gah-nee*, Kiswahili for "Let's Unite"

The health of this diverse natural environment and the well-being of its people are threatened by the same forces: extreme poverty compounded by a rapidly growing human population. These remote villages lack access to health services, education and modern contraception. With populations spiraling upward, settlements and farms are encroaching into wild lands. As more forest is cleared haphazardly for agriculture, sediment clogs coastal zones and fisheries decline.

The Conservancy is partnering with Pathfinder International, Frankfurt Zoological Society, Jane Goodall Institute, Tanzania National Parks (TANAPA), the Government of Tanzania and others to unite conservation with initiatives to strengthen local governance, improve access to social services and create sustainable livelihoods.

LEARN MORE: NATURE.ORG/AFRICA

TUUNGANE PROJECT GOALS

- **Build the capacity of village governments:** Design training programs that meet specific community needs; enhance participation and transparency; educate and engage local leaders in population, health and environment strategies.
- **Improve local governance:** Enable long-term support for population, health and environment strategies.
- **Strengthen forest management:** Enroll new forestlands in village protection zones, gain local and national government endorsement and implement a comprehensive land and water protection plan.
- **Enhance Lake Tanganyika fisheries management:** Catalyze co-operative fisheries management at the village level.
- **Improve access to health-care information and services:** Strengthen local government capacity and train community health workers.
- **Diversify and improve livelihoods:** Focus on food security and access to markets.

Darran Crabtree in Tanzania © TNC

Girl gathers fresh water from Lake Tanganyika. © AMI VITALE



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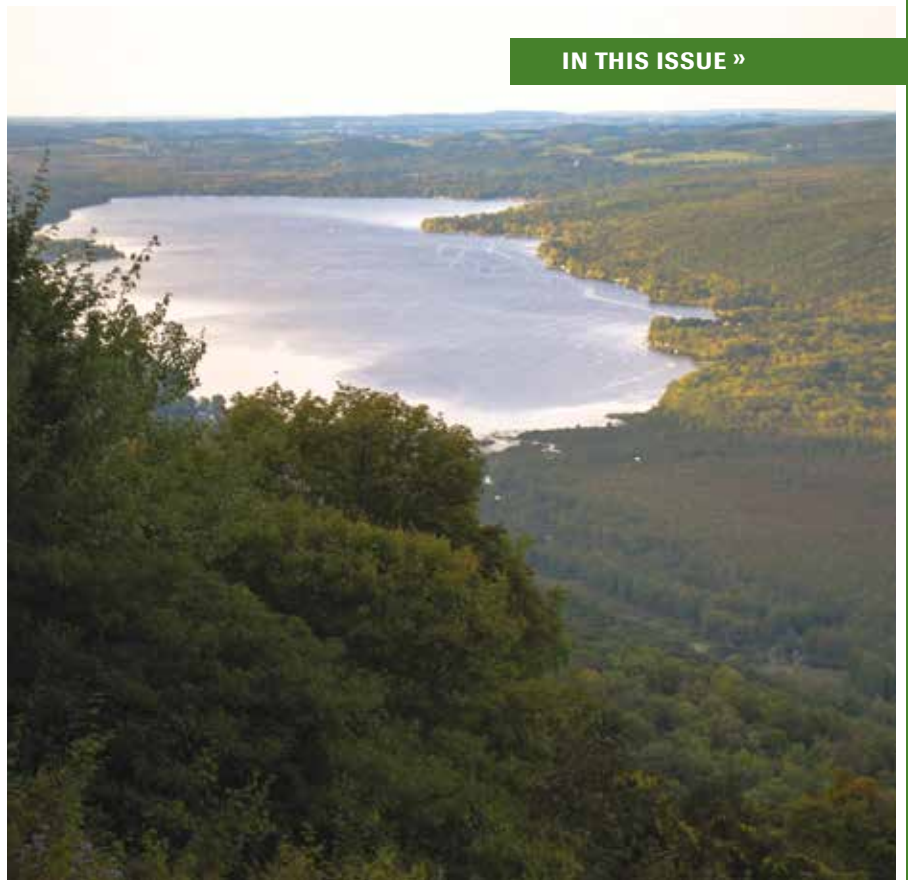


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Conservation Innovations

Celebrating the local results
you make possible



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