The Nature Conservancy

CLIMATE CHANGE

CAN NEW YORK'S FORESTS ADAPT?

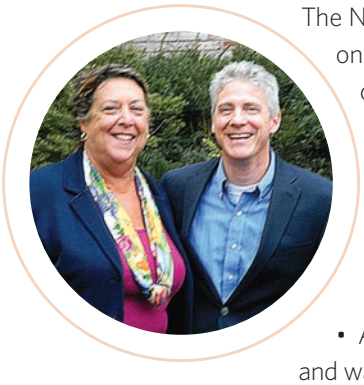
IN THIS ISSUE:

CONNECT WITH NATURE: NATURE.ORG/CWNY

MEMBER UPDATE
CENTRAL & WESTERN
NEW YORK CHAPTER
SPRING/SUMMER 2017

DIRECTOR'S MESSAGE

Science. Collaboration. Results.



The Nature Conservancy's mission is to conserve the lands and waters on which all life depends ... for nature and people. Our science solves complicated challenges. Our collaborative approach finds common ground. And our tenacity gets results.

2017 marks the 60th anniversary of The Nature Conservancy in Central & Western New York. In this newsletter, you'll see that we're doubling down to protect land and water and restore some of New York's most important ecosystems:

- Across Central & Western New York, we're acquiring important lands and waters to enhance our quality of life and provide better access to nature.
- In the Finger Lakes, we're re-engineering streams and transforming floodplains so they can naturally intercept run-off.
- On Tug Hill, we're experimenting with forest management techniques that can accelerate the recovery of the state's third-largest forest.
- And in the far corners of Western New York, we're helping to relocate thousands of endangered mussels to safe waters.

The strength of any organization comes from its people, and that is especially true in The Nature Conservancy. Volunteers like the Gilligans, who have gone the extra mile – literally – to help us repair boardwalks, post signs, and plant saplings all around Upstate New York.

And people like you. Partnerships are fundamental to our approach, and our members will always be our most important partners. From all of us at The Nature Conservancy, thank you for supporting of our efforts to conserve the lands and waters on which all life depends. Please don't hesitate to contact any of our locally based staff or Trustees if you want to get involved or learn more about our work.

Thanks for your support!

Jim Howe
Executive Director

Susan van der Stricht
Board Chair

CONNECT WITH US

ROCHESTER OFFICE: 585-546-8030

Jim Howe, *Executive Director,* x7926
Stevie Adams
Freshwater Conservation Specialist, x7929
Darran Crabtree
Director of Conservation, 814-332-2946
Kristin France
Senior Conservation Scientist, 854-554-3404
Kate Frazer
Communications Manager, 339-222-2014
Gretchen Holtz, *Office Manager,* x7932
David Klein
Senior Field Representative, x7924
Mat Levine
Conservation Lands Manager, x7922
Liz Marr, *Finance/Operations Manager,* x7921
Jan Miller, *Senior Philanthropy Officer,* x7928
Gregg Sargis, *Director of Ecological Management,* x7934
Harshita Sood, *Philanthropy and Operations Coordinator,* x7927
Andy Wheatcraft, *Critical Lands Coordinator,* x7933

NORTHERN NEW YORK PROJECT OFFICE
315-387-3600

Megan Pistolese, *St. Lawrence-Eastern Lake Ontario Partnership for Regional Invasive Species Management Education and Outreach Coordinator,* x 7724
Monique Watts, *Donor Relations Manager* (716) 445-7563
Mary Ripka, *Office Manager and Volunteer Coordinator,* x7721
Brian Roat, *Northern New York Conservation Lands Manager,* x7728
Rob Williams, *St. Lawrence-Eastern Lake Ontario Partnership for Regional Invasive Species Management Coordinator,* x7725

COVER Tug Hill is a mosaic of working forests and intact wild areas like Mad River Swamp, shown here, nearly all of which is owned and managed by The Nature Conservancy. © *TNC;* THIS PAGE *LEFT TO RIGHT* Pearl Crescent butterflies rely on nectar-producing native plants such as asters and swamp milkweed. © *TNC;* © *Jan Miller/TNC.*

WE'VE MOVED!

A DYNAMIC LEAP INTO COLLABORATION AND SUSTAINABILITY

Big news! The Nature Conservancy's Rochester-based Central & Western New York Chapter staff moved into a new office space in March. The office, located in Village Gate in Rochester, isn't far from the old one in distance, but it's light years ahead in terms of location and sustainable design.

The move was motivated by the staff's desire for a more modern, collaborative environment. "We're like a big family," says Liz Marr, the Conservancy's Finance and Operations Manager, who led the transition. "Our projects demand we work closely together, but our old office lacked common areas and wasn't conducive to collaboration. Our new workspace is open and airy, and has shared spaces that will increase opportunities for both planned and casual conversations."

When asked what they needed most, staff members said they needed a building that fit their desired work model: close collaboration in a dynamic, sustainably designed environment. The walls are painted with low-VOC (volatile organic compounds) paint. The carpet is recycled from old fishing nets and office chairs are constructed from recycled soda bottles. Low-energy, high luminence LED lights were used throughout, provided at a discount by Rochester-based LED specialist *lumalon*. And while it's a new space, exposed brick and old windows reveal its industrial past.

The office also has health and productivity benefits including stand-up desks, ample get-away space, and access to an indoor atrium. "Better yet," says Marr, "the move coincides with the arrival of spring songbirds, which we can listen to through windows that actually open!"

"With all these upgrades," says Marr, "we can walk the walk of environmental sustainability and work in a collaborative style that will further our success."

VISITORS ARE WELCOME!

Call **(585) 546-8030** or stop by
274 North Goodman Street, Suite B261.

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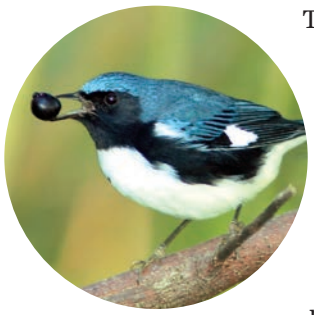
THIS PAGE Our new space will bring a little more of the outdoors indoors. © *TNC.*

CLIMATE CHANGE:

ESTABLISHING RESILIENCE ON TUG HILL



The Tug Hill Plateau, New York's third largest forest, is a mosaic of public and private lands and a critical link between the Adirondacks to the northeast and the Appalachian Mountains to the south. Black bears, fishers, American (pine) martens and forest birds like the three-toed woodpecker roam freely here, and the high-quality headwaters that originate in the forest ensure that water flowing into Lake Ontario and the Mohawk River is clean and plentiful. The forest is also important to the local recreation and timber industries.

But while the forests of Tug Hill are large, well-connected and relatively unfragmented, decades of heavy selective cutting have weakened them by lessening structural diversity (many trees are the same size and same height).

The arrival of beech bark disease, which inhibits the growth of mature beech trees, has exacerbated this. Such conditions leave forests vulnerable to climate change impacts and threaten the region's future economic security.

"The Tug Hill region is expected to warm by as much as four to six degrees Fahrenheit by the 2050s," says Jim Howe, Chapter Director of The Nature Conservancy. To face these impacts, The Nature Conservancy was awarded a $166,925 grant from the Wildlife Conservation Society (WCS) to make Tug Hill a stronghold of climate resiliency. The grant was awarded through WSC's Climate Adaptation Fund—a fund established by a grant from the Doris Duke Charitable Foundation. The project goals are to re-establish a strong and diverse forest able to weather a changing climate, maintain corridors for wildlife movement and migration, and ensure that ecosystem services like clean air, water, and timber are generated for people.

"The first phase of the project is a science-driven, on-the-ground experiment to create optimal conditions for a forest to stand strong in the face of a changing climate," says Gregg Sargis, The Nature Conservancy's Director of Ecological Management. "In 2015, we purchased a 400-acre clear-cut property that we'll replant to encourage regeneration of native species. We'll also apply traditional silviculture techniques to build other characteristics, such as leaving snags and large woody debris on the forest floor, which help a forest adapt to change. What we learn about managing a forest for climate resiliency can then be shared and scaled up across the entire Tug Hill landscape."

THIS PAGE *CLOCKWISE* Black-throated blue warbler © *Kenneth Cole CC;* Tug Hill supports an exceptional number of native plants and wildlife, and is largely free of invasive species @TNC; Tug Hill is New York's third largest forest. © *TNC.*

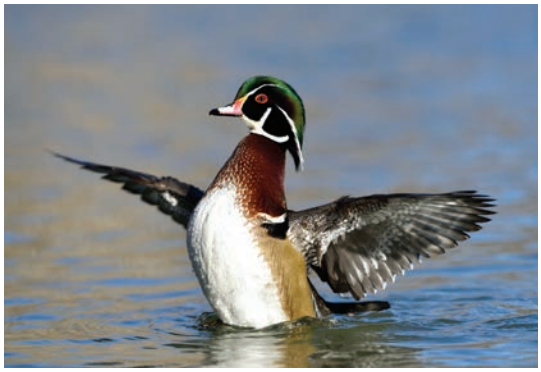
The Nature Conservancy is working with SUNY College of Environmental Science & Forestry, which will help monitor forest conditions, and Cornell Cooperative Extension, which will disseminate what we learn to timber companies, private landowners, and managers of protected lands.

"If we're successful" says Sargis, "Tug Hill will remain a stronghold of climate resilience that provides corridors for wildlife, economic value for communities and life-essential services for people—for generations to come."

Protecting New Places

THE NATURE CONSERVANCY SAFEGUARDS CRITICAL LANDS & WATERS

Thanks to your generous support, we've added new properties to our network of protected lands and waters across Central and Western New York.



85 ACRES

of hemlock and beech-maple forests in the Finger Lakes region. The new parcel, located in Ontario County between Honeoye and Canandaigua Lakes, is adjacent to a NYS DEC wildlife management area and has the potential to support breeding woodland salamanders. Keeping these lands forested also safeguards water quality in the Finger Lakes.

6 ACRES

adjacent to Montezuma National Wildlife Refuge in Wayne County. Montezuma is one of the most important resting, feeding, and nesting areas on the Atlantic Flyway. The new land is being acquired on behalf of the U.S. Fish and Wildlife Service, which needs the 6-acre parcel to construct a wildlife access drive that will allow public access to nearly 1,000 acres of adjacent wetlands.

78 ACRES

of forests and wetlands adjacent to Goundry Hill State Forest in Schuyler County. The Chapter is acquiring this property on behalf of NYS DEC, who will manage it for multiple benefits to serve the needs of the people of New York. A portion of an existing multi-use trail crosses through the property. This property was purchased at an auction.

MANY MORE LAND CONSERVATION PROJECTS ARE UNDERWAY.

Know of a special place in need of protection? Contact Andrew Wheatcraft, Critical Lands Coordinator at **awheatcraft@tnc.org** or **(585) 546-8030 ext. 7933**.

THIS PAGE *CLOCKWISE* American (pine) marten © *Suzanne Britton, CC-3.0.;* Eastern forest in early spring © *Laura Kammermeier;* Montezuma National Wildlife Refuge is a great place to observe waterfowl such as courting Wood Ducks © *Bert de Tilly, CC-4.0.*

FLEXING OUR MUSSELS

CONSERVANCY HELPS RE-LOCATE ENDANGERED MUSSELS TO SAFE WATERS

Thanks to the patience and tenacity of multiple partners in the Allegheny River basin, an extraordinarily large population of freshwater mussels—including tens of thousands of critically endangered clubshell and riffleshell varieties—have been relocated to safety from the shadows of a bridge demolition project.

The "wild and scenic" headwaters of the Allegheny River are extraordinarily diverse, providing substrate, clean water, and temperature conditions that have allowed freshwater mussels to thrive for generations. These mussels can grow as large as a fisherman's hand and are colorful yet rarely seen creatures that provide ecosystem functions such as improved water clarity and nutrient-sediment equilibrium. The pristine headwaters of the Allegheny basin are a critical stronghold to clubshell and northern riffleshell mussels, whose populations have been squeezed to just 5% of their historical range.

When surveys noted vast numbers of these species at a bridge site slated for demolition, The Nature Conservancy and other partners realized that this was a unique opportunity to re-establish the species into some of their historic range.

"Safely relocating the mussels to a new substrate was an enormous responsibility," says Darran Crabtree, Director of Conservation at The Nature Conservancy. "Our role was to help develop protocols on how and where to safely move the mussels." Thankfully, data from previous Conservancy mussel surveys revealed the location of small populations of mussels in Cassadaga Creek in Chautauqua County. A plan was made to transport a portion of the mussels to this ecologically suitable location, thus establishing a secondary population and contributing to recovery of the species.

Establishing viable populations of clubshell and riffleshell mussels elsewhere in the Allegheny basin is good for the mussels, the river, and its other inhabitants, plus it has the potential to reduce the species' need for federal assistance and the associated regulatory burdens of listed species.

"Getting species off the endangered species list is good for everybody," says Crabtree. "By contributing biologically sound scientific protocols, aquatic monitoring data, and collaborative expertise, The Nature Conservancy helped ensure that these mussels, and the river, will continue to thrive."

Collaboration on this project was intense and meaningful. © *Darran Crabtree/TNC;* Thousands of endangered clubshell mussels were relocated to clean and safer waters. © *Ryan Hagerty/USFWS.*

Honeoye Lake Restoration: LET NATURE LEAD THE WAY

Last fall, The Nature Conservancy and partners completed a restoration project in the Honeoye Lake watershed that will improve its largest tributary's ability to filter sediment and nutrients before they reach the lake.

Increasingly, blue-green algae blooms are reducing recreational use of the lake, impacting tourism, and even creating conditions that are dangerous for people, pets, and wildlife.

Over the years, various control methods have been proposed for different Finger Lakes, but for Honeoye the restoration team relied on one-part green engineering and two-parts ingenuity.

"When confronted with tough problems, we return to first principles. In this case, that meant imagining how the lake used to function prior to the watershed's agricultural boom," says Stevie Adams, Freshwater Specialist with The Nature Conservancy. The result was a "green infrastructure" plan, which restored the stream course into a winding channel that reconnects Honeoye Inlet to its floodplain. This slows the rush of water into Honeoye Lake and allows the floodplain to naturally intercept nutrients and sediment before they reach the lake. Now, even during flood events, the water spills over into the floodplain instead of rushing directly into the lake—thus greatly reducing food for blooming algae.

Partnerships are fundamental to how the Conservancy works. Partners on this particular project include: NYS DEC, Honeoye Lake Watershed Task Force, Ontario County Soil & Water Conservation District, The Honeoye Valley Association, and Finger Lakes Community College.

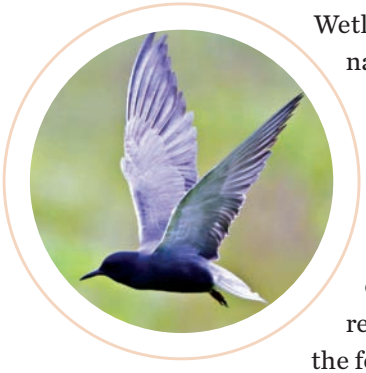
Over the next two years, The Conservancy will monitor the inlet for improvements to both water quality and habitat. By collecting and analyzing water samples and studying macroinvertebrates, over time we will be able to describe how the project is influencing sediment and nutrient loads. Additional tree planting has begun and drones will be employed to monitor landscape-scale conditions, especially after flood events, to get a picture of how fish and other aquatic species benefit from these newly inundated areas. Conducting bird and amphibian surveys will help us understand how quickly life regenerates in and around the channel.

"We can't re-engineer a healthy lake in a day," says Adams, "But if we think like nature, we are more likely to devise cheaper and longer-lasting solutions to environmental problems."

THIS PAGE *CLOCKWISE* Honeoye Lake Inlet © *TNC.* The Nature Conservancy helped replace a channelized ditch with a new 4,000-foot-long natural stream corridor. © *Mathew Levine/TNC;* Local residents will reap the rewards of a clean lake. © *Michael D-L Jordan.*

SODUS BAY

Restoring the "Lungs" of Lake Ontario



Wetlands are one of the best natural defenses for flooding, and The Nature Conservancy, in an ongoing effort to work with shoreline communities, property owners, and New York State leaders on improving shoreline resiliency, has made Sodus Bay the focus of a two-year wetland restoration project.

Sodus Bay is located on the Lake Ontario shoreline between Rochester and Syracuse and is a place of residence and recreation for many Upstate New Yorkers. Over the years, altered water levels and increased nutrients and sedimentation from upstream sources have promoted thick beds of invasive cattails, thus robbing the wetlands of suitable habitat for fish and birds and impacting their ability to attenuate flooding.

Did you know? The International Joint Commission's recently released **Plan 2014** will help restore 64,000 acres of lakeshore wetlands in New York and Canada.

Construction on the wetland restoration project is expected to take place early next winter. "The plan is to cut 2,000 feet of new channels through the cattail mat and dig upwards of two acres of open water potholes," says Gregg Sargis, The Nature Conservancy's Director of Ecological Management. "This will provide fish like northern pike, a prized sport fish, with better access to spawning areas, and also improve the quality of habitat. We expect this to stimulate the breeding success of several fish and bird species."

Sargis is coordinating the project in collaboration with Wayne County Soil and Water Conservation District, the

THIS PAGE *CLOCKWISE* Lake Ontario's wetlands provide lakeside nurseries for fish and intimate, watery retreats for people. © *TNC;* Black tern colonies depend on lakeshore wetlands to breed. © *Omarrun;* Northern pike. © *Stevie Adams/TNC.*

Save Our Sodus citizen's group, NYS DEC, and SUNY College of Environmental Science and Forestry. Funding for the project was obtained from the National Fish and Wildlife Foundation's Sustain Our Great Lakes Fund and the federal Great Lakes Restoration Initiative.

"Ultimately," said Sargis, "restoring Sodus Bay will also make the shoreline more resilient for people by absorbing storm surges, increasing flood storage and reducing the amount of nutrients and pollutants entering the bay."

VOLUNTEER SPOTLIGHT

The Gilligan Family

For Eileen Gilligan and her two youngest children, what started as a nice afternoon doing a volunteer beach clean-up at El Dorado Shores Preserve has led to more than four years of volunteer action for The Nature Conservancy. "Volunteering gives us a chance to be together outside, doing good things for nature," said Eileen, "plus it allowed Louis and Valya to build volunteer credits for school and confirmation."

As an engineering geologist, Eileen's mind has never been far from the workings of nature, though she admits it's much nicer to work at the Conservancy's nature preserves than in the Superfund sites of her past. Over the years, she and the kids have done several beach cleanups and helped lay hundreds of feet of boardwalk at El Dorado, repaired boardwalks, posts, and signs at Thousand Acre Swamp, cleared trails in the Adirondacks, and planted trees along Honeoye Inlet. Along the way, the kids have stayed active while learning carpentry and other skills. This experience has even inspired Louis to enter BOCES for training in construction.

Mary Ripka, The Nature Conservancy's Volunteer Coordinator, has nothing but admiration for the family. "Eileen, Louis, and Valya have often traveled 100-miles round-trip to join us at stewardship workdays, and Eileen has assisted remotely with internet research projects."

Recently, Eileen's husband, Kevin, came home from his law office describing a workplace discussion about following one's passion in retirement. *What would be your passion?* Kevin asked.

"Honestly?" she said. "My passion would be to volunteer more for The Nature Conservancy."

VOLUNTEER

For more information contact Mary Ripka at **(315) 387-3600 x7721.**

THIS PAGE *TOP TO BOTTOM* Restoring Sodus Bay will make it more resilient in the face of climate and lake-level change. © *Mat Levine/TNC;* Louis was just a teenager when he began fixing trails and boardwalks. © *Mary Ripka/TNC;* The Gilligan Family © *Mary Ripka/TNC.*

Connect with Nature

This spring and summer, get outside and explore the places you've helped protect!

Discover Rob's Trail

- Connecting with Nature: Hemlock Lake Paddle, Springwater
  Saturday, 6/10/2017, 9:30 am - 12:00 pm
- Connecting with Nature: Rob's Trail - Hemlock Lake Hike, Springwater
  Thursday, 7/27/2017, 6:00 pm - 8:00 pm
- Connecting with Nature: Rob's Trail - Hemlock Lake Hike, Springwater
  Saturday, 9/16/2017, 10:00 am - 12:00 pm

ON THE WEB

Visit our Preserves **nature.org/cwnypreserves** and for event details **nature.org/cwnyevents**

THIS PAGE *CLOCKWISE* Join one of our hikes! @ TNC; LEAF program © *Mat Levine/TNC;* Volunteer trail days. © *Mary Ripka/TNC;* Black terns, mushrooms in southern Tug Hill, and Blanding's turtle © *TNC.*

HIKES AND WATERFALLS Near Ithaca, NY

We encourage you to get out and experience some of Central New York's finest trails this summer. Greater Ithaca and Tompkins County offer numerous trails with breathtaking views and easy access to over 150 waterfalls and gorges.

The Ithaca Trails system also includes two Conservancy properties: Eldridge Wilderness Preserve and O.D. von Engeln Preserve at Malloryville.

O.D. von Engeln Preserve at Malloryville

At the O.D. von Engeln Preserve at Malloryville, more than a mile of eskers — ancient river beds that once ran through glaciers — wind through a pocket of forest adjacent to Fall Creek. At the foot of the eskers, groundwater bubbles up in a constant stream of minerals that nurture rare plants and a wide variety of animals. The amazing diversity of wetland habitats within the preserve, from bogs to fens to wooded swamps, nurtures a variety of rare plants and natural communities found in few other places in New York.

Eldridge Wilderness Preserve

Perched high on Ithaca's South Hill, the 87-acre Eldridge Wilderness is a mosaic of different plant communities from early to late successional areas and a small gorge along the southeast boundary where the stream drains into Six Mile Creek. A wagon road, built in the middle of this area, used to serve as an access road for lumbering and farming operations. Come and enjoy the tranquil beauty of this fascinating preserve.

ON THE WEB

View their online trail finder **https://ithacatrails.org/**

THIS PAGE *TOP TO BOTTOM* The waterfalls around Ithaca and Tompkins County offer breathtaking views. © *Laura Kammermeier;* Slipping into a dark forest gives cool relief on hot summer days. © *The Nature Conservancy.*

The Nature Conservancy
Central & Western New York Chapter
274 N. Goodman Street
Suite B261
Rochester, NY 14607

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central & western new york news

SPRING/SUMMER 2017

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IN THIS ISSUE

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GIVE

Volunteers pull weeds for an Aquatic Invasive Spread prevention workshop. © *The Nature Conservancy.*