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New York depends on us.



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The Nature Conservancy is a private, non-profit 501(c)(3) international membership organization. Its mission is to conserve the lands and waters on which all life depends.

The Nature Conservancy meets all of the Standards for Charity Accountability established by the BBB Wise Giving Alliance. The BBB Wise Giving Alliance is a national charity watchdog affiliated with the Better Business Bureau.

Conservation Connects Us All



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Dear Member,

It's been a year like no other. The global pandemic continues to take center stage, as do the effects of climate change. With record hurricanes, wildfires, droughts, and floods, it has been a period of great loss as our relationship nature is front and center. This is a time of great urgency and opportunity—to create a better future for all of nature, including humanity. Every positive thing we do makes a difference. The bigger the action, the bigger the benefit.

Our New York team takes that responsibility to heart as we advance The Nature Conservancy's ambitious new 2030 goals to tackle the causes of climate change; reduce climate risks to people and nature; conserve lands, waters and oceans; and create a resilient world that is more equitable and just. Our goals compel us to take on big challenges and deliver big outcomes.

As you'll read in this issue, we are conserving New York City's forests just as we do in places like the Adirondacks. If conserved, restored, and managed well, our forests can capture millions of tons of carbon, in addition to providing home for wildlife and clean drinking water for people. As we create community and nature-friendly siting guidelines for solar energy across the Empire State to reduce carbon pollution, we are supporting similar work in India, which is critical to addressing climate change and our global future. And as we work together to restore water quality and healthy oceans off Long Island, we provide healthy habitat for whales and marine life—both here and in their breeding grounds in the Caribbean.

With your wonderful support, we are working to empower communities in New York and around the world to build a healthier, more resilient future. Thank you!

Yours in Conservation,

Bill Ulfelder

Executive Director

The Nature Conservancy in New York

COVER The power of trees. Our *Forest for All NYC* initiative envisions a healthy, biodiverse, robust, accessible, well-understood, and resilient urban forest that justly and equitably delivers its multiple benefits to all residents of New York City. Learn more at forestforall.nyc © Anthony Graziano

Swimmin' to a Clean Water Future in the Finger Lakes

Every summer, some 300 women don swimsuits and brightly colored bathing caps to take part in Women Swimmin', a 1.2-mile event in Cayuga Lake near Ithaca. The benefit raises funds for Hospicare & Palliative Care Services, an organization in the Finger Lakes region. But toxic algae blooms are becoming more frequent and widespread here, which leaves event organizers increasingly on edge.

Sara Worden, Hospicare's acting director of development and community relations, explains: "Though we've never had to cancel or reroute the swim because of harmful algal blooms, it all comes down to the day of the event." The organization sends kayakers out early in the morning to scout for the toxic, aquatic plumes. "The health of the lake has a big impact on the health of our organization and our ability to deliver services," adds Worden.

To prevent and decrease the effects of harmful algal blooms, it's important to first understand their causes. In the Finger Lakes, these include the presence of phosphorus and nitrogen in the water, says Olivia Green, The Nature Conservancy's Finger Lakes water quality specialist. Pollutant-heavy topsoil, chemical fertilizers from lawns and farming, and sometimes manure can make their way into the region's lakes, rivers, streams and ponds.

Conventional septic systems contribute as well. So do invasive species, such as zebra and quagga mussels, that dig

into the sediment at the bottom of lakes, stirring up latent phosphorus and nitrogen for algae to feast on.

And then there's global warming, which is heating up water temperatures, enabling algal blooms to grow more quickly and to appear both earlier and later in the season, Green says. Climate change also causes bigger rainstorms in New York, bringing more polluted runoff into the water system.

Fortunately, there are solutions. Property owners in some areas can replace outdated septic systems with new technologies that treat both nitrogen and phosphorus. Boaters and anglers can follow recommendations to stop the spread of aquatic invasive species.

Another important solution is to conserve and restore natural areas that serve as buffers between land and water, as The Nature Conservancy and its partners have done through projects like the restoration of Honeoye Inlet. In the Owasco Lake region, we are working with farmers who are developing new agricultural practices to protect the watershed. In addition, all of us can get involved in the effort to combat climate change.

Dampening the source and scourge of harmful algal blooms across the Finger Lakes means not just safe water to drink but also the incalculable pleasures of a swim on a hot summer's day. And it means Hospicare can continue to hold the Women Swimmin' event safely, year after year.





The Nature Conservancy and the St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management have been working with 19 regional and international partners, including Tribal communities, nonprofits, government agencies and others to gain a holistic understanding of important native fish like cisco and whitefish and their habitat use. Unlocking this information is key for native fish restoration and for the detection and management of invasive species – both locally and within the larger Great Lakes basin.

Message in a Molecule: Using Modern Science to Unlock the Mysteries of Fish Populations

A drop of rain trickles down from a hemlock branch and splashes into the river below, leaving tiny ripples that radiate gently. Near the streambank, a great blue heron is poised, statue-like, waiting to catch its morning meal. This idyllic scene is the site of a mystery that Nature Conservancy scientists are working to solve.

Rivers such as these—the tributaries of eastern Lake Ontario and the Upper St. Lawrence River—flow through the most undisturbed landscapes in the bi-national Lake Ontario watershed. The Tug Hill, northern Adirondacks, and Indian River chain of lakes along the St. Lawrence are heavily forested with more than 30 streams, rivers, and bays that feed pure, cool water downstream. Some, like Chaumont Bay, provide spawning and nursery areas for cisco and whitefish, native fish that once fueled Great Lakes economies and now are on the long road to recovery.

But we don't know which native fish may be present in these waters, whether they use these tributaries for spawning, or whether aquatic invasive species affect their use of these habitats.

“Without answers to these questions, we don't have a full suite of information to help bring back important native

fish throughout our waters for the benefit of people and the wildlife that depend on them,” says Philippa Kohn, sustainable fisheries ecologist for The Nature Conservancy in New York.

As a result, The Nature Conservancy is using an innovative process called environmental DNA (eDNA) monitoring, which allows scientists to detect fish species without ever seeing or catching them.

According to Brittney Rogers, aquatic resiliency coordinator for The Nature Conservancy in New York, “Aquatic species shed their DNA into the water whenever they are present, through scales, feces, eggs, and mucus. By collecting a water sample, we can extract their DNA and determine if they have been there.”

Kohn adds, “This exciting, cutting-edge research will enable us to identify priority sites for protection, restoration, and invasive species removal. The information gathered here will not only inform current efforts but may also change the course of our work.”

Very soon, we hope that the secrets of these waters and the fish that use them will no longer be a mystery.

India: A Leader in Global Climate Work

From the tropical forests of Kerala to the dry deserts of Rajasthan, from the Himalayas in the north to the seascapes of Goa and Tamil Nadu in the south, India is as vast and varied as its people.

It has been hit particularly hard by the COVID-19 pandemic—with a tragic number of deaths, coupled with economic, mental, and emotional hardship for the survivors on a personal and collective scale. At the same time, the pandemic has dramatically increased India's awareness that we need scalable solutions to global problems, including, and especially, for climate change.

By 2050, India's population will grow to 1.6 billion. It will be the largest country in the world by population, contained in a relatively small landmass (about one third the size of the United States). With burgeoning cities, dwindling water supplies, and growing pressure on natural resources, India is on a precipice.

“India has done incredibly well conserving its iconic wildlife and forested lands. That said, the pressures of climate change are more acutely felt today in India than most places on the planet—a signal of what's ahead for the globe. I strongly

believe there is nowhere on Earth where our work is more important than in India,” says Steve Denning, former co-chair of The Nature Conservancy's Global Board.

And India can deploy science and innovation to guide sustainable, climate-smart energy development for the future. One way is through the Conservancy's newly developed tool SiteRight, which helps to identify locations for wind and solar projects with the lowest impact on ecosystems and local communities.

“If we take steps today to guide the expansion of renewable energy to lower impact areas, we have the potential to develop 10 times India's 2022 target of 175 GW for renewable energy,” explains Annapurna Vancheswaran, managing director of the Conservancy's India program.

“We are a leader in the international movement to create a world where people and nature can thrive.” Vancheswaran adds, “I'm looking forward to leading the Conservancy's contribution to tackling climate change and protecting and restoring critical ecosystems, as well as combating the current COVID-induced challenges in these spheres.”



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One of the most biodiverse countries on Earth, India hosts some 96,000 animal species and 47,000 plants. Despite being one of the globe's most populous countries, it is also home to more than half of the world's remaining wild tigers, Asian elephants, snow leopards, red pandas, Himalayan brown bears, Indian rhinoceroses, and Asiatic lions.

A Tribute to Extraordinary Women in Conservation



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Inspirational change agent Marilyn Buelow Wilson was a devoted philanthropist and one of The Nature Conservancy's longest standing supporters. Her relationship with us spanned over 70 years. She passed on January 1, 2021, at the age of 96. Marilyn was an accomplished artist, avid birder, active gardener, and enthusiastic hiker who appreciated the richness of nature with all her senses.

that remains a largely intact 329,600-acre botanical wonderland. Another shining star in Marilyn's portfolio: helping the Conservancy establish the 18,000-acre Juniper Hills Preserve, home to some of the state's largest and healthiest antelope and elk herds.

Back on Long Island, Marilyn celebrated her 80th birthday at Mashomack Preserve. At the celebration, the Conservancy presented her with a hand-carved bluebird, a symbol of the work she helped fund to bring back New York's iconic state bird. It remained in a special place in her home as a reminder of the beauty and happiness that she was instrumental in helping to conserve.

A bluebird alights on a fence post, its striking lapis colors shimmering in the late day sun. Behind it, a native wildflower meadow sways gently in the breeze. It is a world abuzz with the din of insects. The bird swoops, deftly catching a grasshopper to bring to its hungry young.

Witnessing moments like this fueled a decades-long commitment to conservation for birder and lifelong nature-lover Marilyn Buelow Wilson.

Marilyn was involved with The Nature Conservancy from its start—and remained engaged for the rest of her life. Her first donation was \$25 to the Mianus River Gorge project, the New York chapter's inaugural land protection campaign in the late 1950s. After that, she became immersed in the Conservancy's work across Long Island, where she helped establish the South Fork–Shelter Island Chapter and hired its first full-time director. She was instrumental in the protection of Mashomack, a 2,039-acre preserve on Shelter Island as well as parcels in Accabonac Harbor, Grace Estate, Montauk and Pipes Cove. During her life, Marilyn's conservation work impacted communities across New York, in Oregon and around the world.

Marilyn had a special place in her heart for globally significant sites in upstate New York. Her generous gifts helped advance the groundbreaking Heart of the Adirondacks Finch-Pruyn project. This project involved the conservation of 161,000 acres—including 300 lakes and ponds, 90 mountains and 415 miles of river—and was the largest deal ever handled by the Conservancy at the time. Her ongoing support also helped protect the inimitable Follensby—14,700 acres of spectacular Adirondacks' landscape the size of Manhattan and truly one of the crown jewels of the region.

Her founding investments in Oregon led to the creation of the Zumwalt Prairie Preserve, a vast grassland on the flanks of Hells Canyon in northeast Oregon



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THE PASSING OF CONSERVATION LEADER NANCY KELLEY

The Nature Conservancy mourns the loss of former Long Island Chapter Director Nancy Kelley, who passed away this summer. Under her 22 years of leadership, she lobbied and partnered with state and local governments to preserve thousands of acres of unique Long Island habitats and open spaces, including underwater lands. Her focus was on protecting water quality and restoring marine habitats in our bays and harbors, fisheries, coastal ponds such as Georgica and Wainscott, and the Long Island Sound. Nancy worked tirelessly to tackle climate change and raise funding that enabled a generation of bold new ideas to come to fruition.

By the Numbers

7 million

trees in New York City identified as part of NYC's urban forest; a new partner-wide plan that aims to put funding in place to care for and expand this natural asset

103

different species of plants in a 100-square-meter plot at a fen at our O.D. von Engeln Preserve at Malloryville, rivalling the tropics in term of its biodiversity

300+

Bio-control beetles released by the Conservancy and partners to help control invasive species, purple loosestrife and restore a priority wetland

2,000

stakeholders informed the *Blue Plan*, an unprecedented effort for Long Island Sound conservation work in Connecticut and New York

10,000

acres enrolled in our *Working Woodlands* program to keep forests healthy and absorb carbon emissions

5

Emerald Ash Borer monitoring stations established in the Adirondacks to aid in the early detection of this invasive species

\$303.5 billion

from Department of Transportation programs for highways, roads and bridges will help further Conservancy goals across the U.S. for natural infrastructure, resilience, reducing carbon emissions and wildlife crossings

25

states engaged in U.S. Climate Alliance to advance national climate and clean energy policies through our role on New York's Agriculture and Forestry Advisory Committee

13 pounds, 8 ounces

– the weight of a new state record bowfin caught this summer by an angler along the Lake Ontario shoreline in Monroe County

30 x 30

conservation goal mirrors the federal goal to conserve 30% of our nation's lands, waters and ocean by 2030

\$3 billion

Environmental Bond Act to appear on New York's 2022 ballot

80,000+

acres responsibly stewarded through conservation easements in the Adirondacks

45,000

individuals enjoyed our trails at Mashomack—a milestone in TNC-NY preserve visitorship

600+

culvert surveys being completed in the Lake Champlain basin for potential replacement



20

different lichen species observed in the Adirondacks' Spring Pond Bog Preserve owned by The Nature Conservancy



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CONSERVING NEW YORK'S URBAN FOREST

More than 7 million trees make up New York City's urban forest, a beautiful feature of our parks, sidewalks, homes, businesses, institutions, and natural areas. And yet New York City does not have sufficient funding or regulation in place to fully care for and expand this natural asset.

As such, The Nature Conservancy is pleased to launch the first-of-its-kind report—the NYC Urban Forest Agenda—a plan to protect, restore and grow this forest so that its benefits reach everyone equitably.

The report is a clear map for investing in the future of New York so it can endure increasing heat waves and extreme weather, as well as combat environmental injustice and health and educational disparities.

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