

NEW YORK UPDATE | SPRING/SUMMER | 2022

New York depends on us.

A young child with brown hair, wearing a red polo shirt, is looking down at a frog being held in their hands. The background is a lush green field of tall grass.

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Partnering with Communities to Create a Better World



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Dear Friend,

The Nature Conservancy is deeply grateful for your support as we partner with communities across New York to create a more resilient future for nature and people. Through science, innovation, partnerships, and real-world solutions, we are tackling climate change, protecting lands and waters, and creating more equitable conservation solutions. Along the shores of Long Island, on the forested ridges of the Hudson Valley, and everywhere else we work, we succeed because we center the needs and expertise of the communities in which we work.

I'm proud of our recent work, including these examples:

- To better protect and manage New York City's trees, which make our city more livable and help tackle both the causes and effects of climate change, we released *The State of the Urban Forest in NYC* (nature.org/futureforestnyc), the first tree census of its kind. Underlining the power of partnerships, the Conservancy is helping lead a coalition of more than 50 organizations to expand the urban forest in more vulnerable communities that don't have enough trees.
- One of the ways that we're helping resource equity, justice, and sovereignty in conservation is through our Common Ground Fund. The first grant was awarded to Hunters of Color, which provides education, mentorship, and resources to novice hunters in order to dismantle barriers to participation. By reconnecting Black, Indigenous, and people of color to the outdoors, the program creates future conservationists as it reinforces stronger connections to nature, ancestral traditions, and the hunting community.
- To improve our coastal waters, we recently offered 2,040 Long Island households assistance with applying to Suffolk County's Septic Improvement Program. This work will help homeowners to upgrade their septic systems and thus reduce the amount of damaging nitrogen pollution entering our waters. You can learn more about our water quality efforts at <https://protectliwater.org>.

Your support has helped make all these achievements possible. And while the challenges we face are immense, we are implementing and pursuing big and bold action that would allow New York to set a national and even global example.

We are creating a brighter tomorrow with communities and people like you.

Thank you for making a difference.

Bill Ulfelder
Executive Director
The Nature Conservancy in New York

Turbine Reefs

DESIGNING OFFSHORE WIND POWER TO IMPROVE HABITAT FOR MARINE LIFE

As offshore wind power development ramps up in the United States, scientists and advocates are exploring how a well-known biological principle—the idea that complex habitat promotes diversity of wildlife—applies in this new context.

Offshore wind power is essential to limiting global warming and building healthy, safe, and prosperous communities. Right now, there are only a handful of offshore wind turbines in U.S. state and federal waters. But by 2035, there will likely be more than 2,000 turbines off the Atlantic coast alone. Together, they can generate enough renewable energy to power 10 million homes, reducing demand for fossil fuel-burning power plants that are the United States' second-largest source of carbon pollution.

Add to that serious economic benefits: By decade's end, the offshore wind power industry will create 77,000 well-paying jobs. But turbines can do so much more. Nature Conservancy experts believe that, if they are designed properly, offshore wind turbines can help create habitat for fish and other marine life, too.

When hard structures are put in the ocean, they often turn into artificial reefs. Oceanographers and others have observed how submerged shipwrecks and bridges can become home to a wide array of colorful marine species. They've seen the same phenomenon on the underwater portions of many offshore wind turbines in Europe, China, and other parts of the globe.

A group of Conservancy ocean scientists are working with outside researchers to test and evaluate ways to optimize both marine habitat and clean energy during turbine construction.

“As we build out offshore wind energy, there is great potential to enhance and create new fish habitat,” explains Carl LoBue, the Conservancy's New York oceans program director, who is involved in this collaboration. “With intentional design and material selection, these new structures could support entire communities of marine life.”

Important species that could colonize turbine reefs include crabs, lobsters, and structure-oriented fish, such as black sea bass, tautog, scup, ling, cunner, cod, pollock, and triggerfish. There also are many pelagic (open ocean) species that are attracted to structures for a variety of reasons. These vary by season and include Atlantic mackerel, Atlantic bonito, cobia, mahi mahi, sharks, and tuna. Flounder also lurk around the edges of shipwrecks and artificial reefs, hunting for small fish and invertebrates. Over time, these structures can become quite complex habitats.

The idea of optimizing wind turbine bases so that they create places for fish and other marine life to thrive is a new one. Until now, engineers have designed these structures solely to optimize function and cost. Now, says Chris McGuire, the Conservancy's Massachusetts ocean program director, we and our partners are collaborating with engineers “to design for nature as well.”



© Blue Planet Studio

The Nature Conservancy is partnering with other ocean experts to ensure that clean energy and habitat for marine species go hand in hand.

Soaring to New Heights at The Nature Conservancy

We sat down with the Conservancy's newest marine scientist, seabird researcher Juliet Lamb, whose work focuses on seabirds and the marine food web. Her research will help us influence the development of offshore wind energy and fisheries management.

What inspired you to become a biologist whose work is so tightly linked to the ocean?

I've always preferred outside to inside. And when it comes to outside, I've always preferred the ocean.

Growing up on Cape Cod, the ocean was a constant. Not only in summers, when the beaches were overrun with tourists and horseflies, but in winters, when the bay froze in glaciated chunks and belonged to me and a few brave brant geese. When I wanted to celebrate, to reflect, to get my bearings, I headed toward the water.

After college, I spent several years as an itinerant biologist. I'd pack a tent, a sleeping bag, and a pair of binoculars, and head off to the next seasonal job. I crisscrossed the continent, feeding rats to harpy eagles in Panama, tracking elk in California, counting raptors in Oregon, and netting wading birds in the Florida Everglades. But my summers and my heart belonged to seabirds.

What is it about seabirds that you find so compelling?

To enter a seabird colony is to go into an exceptional society. Around you, birds jostle for space, warn of approaching predators, and huddle protectively over their young. Birds return with bills full of fish and cartwheel into burrows or alight on nests, met by a chorus of squawking chicks clambering for a meal. On harsh, windswept islands, where human civilizations have failed, seabirds thrive. But their presence is temporary and born of necessity. The moment chicks leave the nests, adults disappear into the vast reaches of the sea, only to come ashore during the next breeding season. In the wildest places on Earth, seabirds are most at home.

Do you have a favorite spot to view seabirds?

I loved studying puffins and terns in the Gulf of Maine, fulmars and cormorants in the Orkney Islands of Scotland, pelicans in the Gulf of Mexico, sea ducks along the Atlantic coast, and gulls in the Mediterranean Sea. But observing them only brought more questions to mind. Where do they migrate to? What do they eat? Most of all, how do our actions and decisions affect them? These questions led me beyond simply studying seabirds and the ocean—I wanted to protect them.

What is your role at The Nature Conservancy?

I'm thrilled for the opportunity to work with a network of not only conservation scientists but also social scientists, communicators, economists, and policy experts who are motivated to use science to solve the biggest conservation challenges of our time.

I'm especially pleased to be working near the shorelines that have always felt like home.



By the Numbers

\$4 billion

for a clean water, clean air, and green jobs bond act will appear on the November 2022 General Election Ballot, thanks in part to our policy team

480,000

acres of ocean area in the New York Bight will be leased for offshore wind development; we are advising agency contractors on how to manage this development in an environmentally friendly way

\$234 million

was allocated to a sewer expansion project in the tidal Forge River area on the south shore of Long Island to improve water quality, the largest sewer expansion since the 1980s

10,500

miles is the length of the New York State Snowmobile Trail System; with partners, we rerouted a section of the trail that runs through our Boquet River Nature Preserve to ensure trail access for snowmobilers

60%

of sites in the Adirondacks that TNC and partners cleared of invasive plants continue to be healthy and free of invasives

85%

of Long Island voters said yes to a plan that will upgrade septic systems for 1,889 homes and reduce nitrogen pollution into the Forge River by 71,000 pounds per year

4

interns from Polytechnic University, The New School, Harvard Business School and Duke University are assisting us with business solutions to make us more efficient, agile and innovative

The 30th

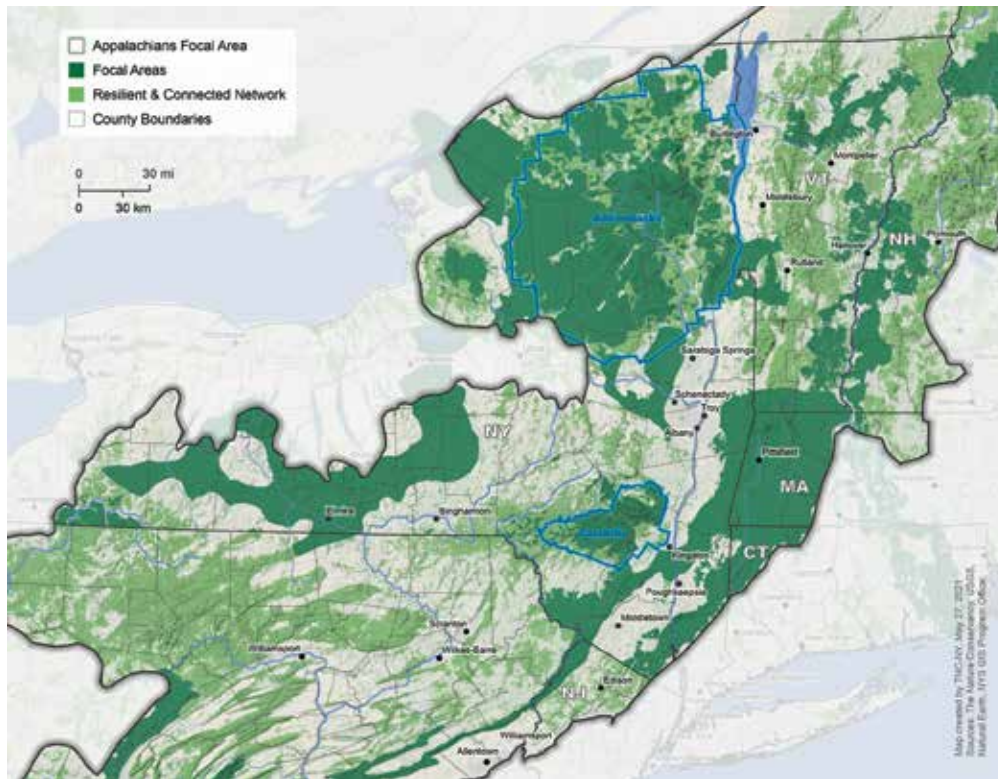
National Estuarine Research Reserve in the nation has been designated in Connecticut, after years of dedicated advocacy by Conservancy staff in New York and Connecticut

65

people from eight City agencies and nearly 20 organizations participated with us to envision how a successful buyout program will acquire, manage, and steward floodprone properties in New York City



Creating a Continental Vision



Currently only a quarter of the Appalachian corridor is protected. Our vision for continental conservation involves stitching together large swaths of lands across the Appalachian expanse to mitigate climate change, bolster biodiversity and support communities.

State playing a critical role in advancing this vision. Conservancy scientists have identified the Adirondacks, Catskills, Tug Hill Plateau, and Hudson Valley as some of the landscapes with the greatest ability to sequester carbon and support biodiversity. We are working to connect and conserve these critical areas, as well as using nature to help communities and ecosystems adapt and become even more resilient to climate change.

In New York, it is essential to conserve key areas along with the landscapes that connect them, to give species opportunities to shift to northern ranges and higher elevations in response to climate change. Here are some ways we're working to conserve and connect these priority areas:

Using innovative ways to manage lands for climate resilience. Follensby, the 14,700-acre landscape in the heart of the Adirondacks and one of the last intact temperate deciduous forests in the world, serves as a platform for climate change research, education, and innovative partnerships.

Accelerating the pace and scale of land protection through partnerships. We provide land trusts with funding for land protection and capacity building in the areas that are most critical for conservation connectivity.

Supporting private landowners in conservation. With over 80 percent of New York's forested land in private ownership, we are developing resources and programs, like the Family Forest Carbon Program, to help private landowners manage and protect their forests for carbon sequestration and the best conservation outcomes.

Improving infrastructure for species migration. Major highways, like I-90, as well as improperly placed and undersized culverts, create insurmountable barriers to species migration. We are partnering with New York State and targeted municipalities to assess and improve problematic infrastructure and create better pathways so that nature can move in a changing climate.

Spanning 2,000 miles from the Blue Ridge mountains of Alabama to the boreal forests of Canada, the Appalachians are home to 22 million people who rely on the range's natural resources for health, livelihoods, and recreation. The landscape provides clean air and fresh water to communities, is one of the world's most biodiverse and resilient in the face of climate change, and is a superhighway for migrating species. But it is facing some serious challenges. Warming temperatures, extreme weather events, development, unsustainable forestry, and habitat fragmentation put the region's public, economic and ecological health at risk.

In this vast landscape, The Nature Conservancy sees an unmatched opportunity to address the dual crises of climate change and biodiversity loss, with the lands and waters of New York

Nurturing the Big Apple's Forest

Emily Nobel Maxwell describes the work she does as The Nature Conservancy's New York Cities Program director as the "marriage of science and policy." What that means is that she spends her time looking for answers to questions like "What benefits do trees offer cities?" And "How can government, civil society groups, and property owners work together to expand nature in urban settings, especially in ways that increase equity, build community, adapt to extreme weather, and reduce temperatures in the hottest—and often the poorest—neighborhoods?"

For Maxwell, these questions tie deeply to who she is: someone with a visceral connection to people and to other living things. Her passions have led her to champion New York's urban forest in particular—its more than 7 million oaks, sycamores, hickories, magnolias, and more. At present, there is no entity, public or private, that manages, maintains, and develops this crucial resource.

"Can you imagine having an asset valued at \$5.7 billion, without a clear, funded plan or sufficient leadership to care for it as a whole, now and into the future?" she asks.

Her work, including co-authorship of a first-of-its-kind report, *The State of the Urban Forest in NYC*, is a years-long effort to change that. She and her team champion trees for their many benefits. Study after study shows that the presence of trees can help reduce depression, anxiety, and crime. Trees soak up stormwater to prevent flooding and filter pollution out of the air. Their shade cools people, streets, and buildings. And, of course, trees store carbon, removing this greenhouse gas from the atmosphere. All these benefits are especially important as the climate changes, storms become more frequent and intense, and summer temperatures spike dangerously high.

Today, Maxwell co-leads the 40+-member Forest for All NYC coalition to promote wise protection, careful stewardship, and expansion of the Big Apple's tree canopy in an equitable way. The group calls for a significant increase in the city's forest canopy, a master plan to invest in and manage New York's urban forest, and fair access to trees and their advantages. As things stand now, the city's lushest neighborhoods are often its wealthiest and whitest. Data show that neighborhoods with the least vegetation are often the most vulnerable to extreme weather—especially heat waves and flooding.

"We want to make sure the whole forest thrives and expands to help the city—especially its frontline communities—adapt to climate change now and in the years to come," Maxwell says.



New York Cities Lead Scientist Mike Treglia and New York Cities Program Director Emily Nobel Maxwell work to advance natural solutions to some of Gotham City's conservation challenges.



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Leave a legacy for generations to come.

What better legacy is there to leave than your commitment to protecting the Earth for generations to come? Whether you are taking those first steps toward planning your estate or are in the process of updating your estate plan, The Nature Conservancy is here to help.

Don't let another day pass by.

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