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Bill Ulfelder © Jonathan Grassi

#### **From Our Executive Director**

From the Great Lakes to the Hudson River, the Empire State is abundant with fresh water that millions of people depend on for life and livelihood.

In New York, we create and advance solutions to our two biggest water challenges: having enough of it and keeping it clean. The Nature Conservancy leads the way to better water conditions by influencing policymakers, addressing the impacts of climate change, securing funding for key septic upgrades and fighting aquatic invasive species.

Thanks to your support, we're protecting what makes New York so special and showing the nation and world what's possible.



Bill Ulfelder, Executive Director



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Clockwise from top left: Invasive mussels and round gobies on a degraded spawning reef in Lake Erie © Pippa Kohn/ TNC; Nature Conservancy divers assessing habitat at a spawning reef in Lake Erie © Pippa Kohn/TNC; Lake herring, also known as cisco, are a critical species in the Great Lakes. © Paul Vecsei

## **Diving for Answers: An Underwater Mission to Save Native Fish**

The Great Lakes, once teeming with life, are now facing a silent crisis. Over half of the 139 native fish species that live there are either endangered or threatened. Populations of iconic species like cisco (lake herring) and lake whitefish—which are crucial in the food web and the economy—have plummeted. Habitat degradation, invasive species and a changing climate all play a role. But the reasons for the decline and the challenge of how to help native species recover remain a little murky.

A team from The Nature Conservancy is diving for answers in Lake Erie. Their mission: to better understand the fishes' spawning habitat and give native fish species a chance to rebound.

"Most people don't realize that the Great Lakes have areas of stacked cobble that function much like coral reefs. And native fish in the Great Lakes use these 'reefs' for spawning to protect their eggs from predators until they hatch," says Philippa Kohn, Great Lakes fisheries project director for The Nature Conservancy in New York.

"Many of these reefs are being lost or degraded due to a range of factors, including erosion and invasive species, but we can't properly restore the fish until we know more about what's driving their decline."

Decked in scuba gear and armed with scientific curiosity, the Conservancy's team is coordinating with state and federal fisheries agencies to map and evaluate these key habitats.

Adds Kohn, "We are starting by partnering with our government agencies to pilot a project that includes trying to 'clean' an existing reef of infilled sediment and invasive mussels. This work will allow us to not only understand the baseline conditions of the reef but also assess whether this kind of habitat restoration can be effective here and in other places."



Cathy Gibson © TNC

## Meet Water Resource Specialist Cathy Gibson

#### Why is freshwater conservation so essential in New York?

Fresh water weaves through all our conservation work in New York. As a Great Lakes state, New York is a front-line steward of approximately 20% of the world's available surface fresh water. In addition, our state is home to the headwaters of the Chesapeake Bay, Long Island Sound, the Ohio River, the Delaware River and Lake Champlain—places that are incredibly important ecologically, culturally, economically and recreationally. Add to that our thousands of miles of streams, ponds, lakes, wetlands and rivers, and one realizes the incredible diversity, extent and importance of New York's fresh waters.

#### What do you enjoy most about your work?

In New York, we build partnerships, work with policymakers and communities, and collect and analyze data to understand complex challenges and find solutions. I enjoy developing these partnerships and employing science and data to tackle our freshwater conservation challenges. I get the chance to coordinate with such an exciting array of individuals and teams. One project entails meeting with policymakers to discuss upgrading wastewater infrastructure to improve water quality. Another project is mapping wetlands to understand the suite of environmental benefits they provide. This work is constantly evolving as our climate, laws and land use change.

#### How does your work connect to the bigger picture?

Fresh water not only supports a rich array of plants and animals—it also connects communities with the resources they need to thrive. And The Nature Conservancy is uniquely positioned to create impact by working at the intersections and confluences of water, communities, nature and climate change. The partnerships, science and policies we are building have the potential to make a big impact—not only on New York's fresh waters, but on all the aquatic systems we connect to.

#### NATURE NEW YORK

## 1 million acres

of land enrolled in regenerative agriculture in India by 2027



More farmers in India are choosing sustainable and productive farming initiatives over the traditional methods of burning fields. © Smita Sharma

### Regenerative Agriculture in India

Annually, farmers in the northwestern Indian states of Punjab and Haryana set their fields aflame to clear crop stubble for the next harvest. These two states generate about 40% of the food for the entire country, but crop burning pollutes the air, damages the soil and forces farmers to spend more on fertilizer and irrigation—reducing their profits.

Globally, The Nature Conservancy is advancing farming practices that transform food production to be low-carbon and climate-resilient. In Punjab, we are helping farmers to stop crop-residue burning and transition to regenerative agriculture—which improves soil health and keeps more moisture in the ground. Healthier soils can sequester more carbon. By 2027, we aim to prevent 6 million tons of carbon emissions and save 500 billion liters of water for more resilient landscapes and communities through regenerative agriculture.



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The Nature Conservancy in New York