

HIGHLIGHTS FROM THE NATURE CONSERVANCY:

Here's the Dirt on Adirondack Board Member Kris Covey Making History with Jessica Ottney Mahar Let the River Run Making Headway on Invasive Species

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MESSAGE FROM THE DIRECTOR

Dear Friends,

Most people don't love mud season in the Adirondacks, but it has its charms. It's a time to watch the earth awaken and crack its frosty glaze. There's nothing like a low-elevation walk in the woods when the trees leaf out and the song of migratory birds fill the air. Everything feels possible.

I hope you'll find that sense of possibility in nature and on these pages. Our work with Adirondack communities to care for our lands and waters will ensure that future generations of people and wildlife can continue to thrive here.

All the best,



Peg R. Olsen Director



Preserve Stewardship Coordinator Kate Berdan. © TNC

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Stewardship Team Spotlight

We connected with Preserve Stewardship Coordinator Kate Berdan on land management and equitable access to nature. Berdan was the 2016 Clarence Petty Adirondack Conservation Associate and joined the Nature Conservancy full-time in 2021 after earning dual masters' degrees from the University of Vermont.

What's a typical day during field season?

There is no typical day! I'm in the office doing planning on Mondays and head into the field for the rest of the week, visiting our preserves and managed lands (often without cell service). I'm ensuring that people have a safe and enjoyable experience at our preserves, whether that means clearing large branches from the trails, repairing boardwalks or checking for invasive species.

One of the best parts of my job is talking to visitors and hearing what they're interested in and how they interact with nature. Last summer, I met a dedicated group of retired female ecologists who visit one of our preserves every month to identify rare plant species. It was so inspiring to join them and learn more about their work.

The Conservancy has embarked on a state-wide effort to welcome more people to our preserves. How are you approaching equitable access?

We recently implemented a new trail classification system and trail blazing approach to improve visitor experience. No one likes to go for a hike and find that it's too challenging, that the trail markings are difficult to see, or that they feel unwelcomed or unsafe. Our equitable access work addresses those concerns so that we provide an enjoyable and safe experience at all our preserves.

We're developing plans for another wheelchair-accessible trail at one of our Adirondacks preserves, this time at Silver Lake Bog, which would be the only one in a 40-mile radius. I fell in love with hiking because it made me feel strong and sure of myself. I want everyone to have that experience.

Cover: The violet-blue flowers of the Pickerelweed, (Pontederia cordata), found in abundance in the shallow freshwater wetlands of New York's Adirondack Park. © Mark Godfrey/TNC





Here's the Dirt on Adirondack Board Member Kris Covey



Dr. Kris Covey examines a Dome Island soil sample with Skidmore students. © Skidmore College

Dr. Kris Covey joined our Board of Trustees at The Nature Conservancy in the Adirondacks in 2021. An applied ecologist and biogeochemist, Dr. Covey is an assistant professor of Environmental Studies and Sciences at Skidmore College.

You co-founded The Soil Inventory Project (TSIP), a nonprofit that was recently awarded a \$20-million USDA grant. What do you hope to achieve?

Regenerative and climate-smart agriculture are gathering attention for their potential to transition the agricultural sector from being part of the climate problem into a leading climate solution. But a key challenge is rigorously measuring the carbon stored in soil. To address this, TSIP is building a national-scale distributed soil carbon inventory system. We've developed

new hardware and built a mobile sampling app that lets anyone measure soil carbon. The USDA funding will pay producers to adopt climate-smart practices and monitor soil carbon changes using the TSIP inventory system. Working with partners, we'll investigate climate-smart agriculture with small landowners in the East; corn, wheat and soy growers in the Midwest; and wine grape growers on the West Coast.

How did you get involved with The Nature Conservancy in the Adirondacks?

While conducting research on Dome Island in Lake George, I was introduced to The Nature Conservancy. The island has an interesting history—it was donated to the Conservancy by John Apperson in 1956 to be preserved for educational and scientific purposes. Starting in 2019, my students at Skidmore College began mapping trees and soils on the island. In the heat of the pandemic in 2020, a pair of students moved into a cabin on the shore of Lake George. They took tree core samples from the island trees and mailed them to classmates who had set up makeshift labs at their kitchen tables to date the samples using tree rings. They mapped every tree on the island (>4000) and determined the age of over 250 trees. Along with our soil inventory maps, this tree study provides a baseline to monitor future changes on the island and potential implications for the Adirondacks.

As a professor and a parent, what do you say to young people who are worried about climate change?

The data on global climate change and humanity's impact on our natural systems are clear. They're also increasingly aligned with people's lived experience. If you're in the Northeast, you remember when it used to snow; if you're in the West, you remember more rain and less fire. For many of the young people I work with, they're interested in learning about natural systems because they want to make a valuable contribution toward solving a problem as big as climate change. But there's also meaningful work for social scientists, economists, policymakers, artists and communicators. Point your talent at the biggest problem you see, and get to work.

Learn more about Dr. Covey's work with Skidmore students on Dome Island here; bit.ly/DomeIsland

Making History with Jessica Ottney Mahar



© Dawn Schlaks

Jessica Ottney Mahar is the New York director of policy and strategy for The Nature Conservancy. She shapes environmental policy, which is a critical pillar of our work to improve the health, happiness and well-being of all through conservation, while sustaining the natural resources that make New York so special. As our resources, habitats and wildlife face escalating threats—such as climate change, development and invasive pests and pathogens—our policy wins increase the pace and scale of protection, restoration, and conservation throughout New York.

Ottney Mahar played a key role in a coalition that advocated to pass the Climate Leadership and Community Protection Act in 2019 and the historic \$4.2-billion Clean Water, Clean Air, Green Jobs Bond Act last fall. We sat down with her to talk about policy across New York State.

What has been the most exciting policy win this year?

We are thrilled that New York voters overwhelmingly passed the Bond Act in November. The Nature Conservancy was proud to work with partners to lead the "Vote Yes for Clean Water and Jobs" campaign, which generated strong voter approval for the first environmental bond act in a generation. We remain committed to partnering with other stakeholders and the state to ensure that Bond Act funds are allocated to projects that tackle some of the greatest challenges facing our communities.

What's next for the Bond Act?

We need new agency staff to ensure that Bond Act funds are efficiently and effectively disbursed. The Nature Conservancy will advocate for those hires, and also will work on implementation of the Act with the State and diverse stakeholders, including local government officials, environmental justice organizations, conservation groups, academic institutions, Indigenous Peoples and others. We'll work to build an understanding of what the Bond Act is authorized to fund, provide feedback on program needs that the Bond Act can fill and share information on how municipalities and organizations can apply for Bond Act funds.

What other efforts has your team worked on this year?

A great deal of our policy work is "behind the scenes." We influence New York's climate change and renewable siting policies through the working and advisory boards on which we sit. Along with our partners, we also successfully advocated for the passage of the "30 by 30" bill that sets a statewide goal to protect 30 percent of land and water by 2030. The goal was established by scientists alarmed by the loss of nature resulting in wildlife extinctions. New York's new goal will conserve habitat for vulnerable plants and animals, improve forest health, safeguard family farms, expand access to parks and nature and protect our clean water.

How does it feel to shape environmental policy in New York?

I have the best job in the world! I work with incredibly smart people inside the New York State Capitol and at the Conservancy. I'm also a mom with a young child. On a personal level, climate change is scary because if we don't solve these issues, I'm not sure what will happen to my daughter. She makes me want to be better at what I do, and on the hard days, she's the reason I keep going. Being able to go all in at your job and work that hard is really fulfilling when you get to live a mission-driven life. I'm forever grateful to be part of an organization like The Nature Conservancy.

Let the River Run

The Adirondack town of Willsboro is widely known for its access to lush wilderness, scenic landscapes and flowing waters. It is a popular destination for anglers and home of Pok-O-MacCready, the oldest family-run summer camp in the United States. But not many people know that there was once a small, antiquated dam tucked away behind the Reber Volunteer Fire Department on Cold Brook. And even fewer know that removing this little dam had a big impact on the local wildlife and community.

The Reber dam, built over a century ago, did not appear on New York State's inventory of Adirondack dams—but this small dam had an outsized effect. Rising high above the stream bed, it created an insurmountable barrier for fish, preventing them from reaching valuable cold water and spawning habitat.

"The Reber dam was located near the mouth of Cold Brook, which has been identified as potentially suitable spawning habitat for natural landlocked Atlantic salmon. The stream is also resistant to increasing temperatures from climate change, making it a stronghold for Eastern Brook Trout populations," says Josh LaFountain, freshwater project coordinator for The Nature Conservancy in the Adirondacks. "Our goal is to open the entire system for trout and salmon spawning habitat, while also increasing resilience."

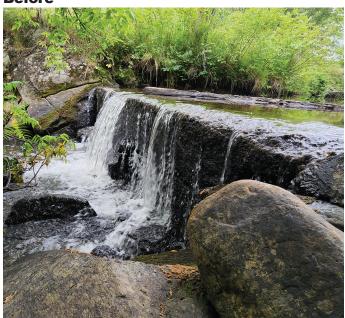
The Conservancy and our partners removed the Reber dam last fall, immediately reconnecting an estimated six miles of habitat for coldwater fish to the North Branch of the Boquet River.

"We've also been working with the Essex County Soil and Water Conservation District and the Adirondack Land Trust to put upstream conservation easements into place," continues LaFountain. "Such easements will add protective buffers along the river, while restricting shoreline agricultural practices, and allow for habitat restoration with new plantings. All these efforts will improve and protect water quality and help the stream revert to its natural condition."

There are big community benefits as well. The dam's removal will reduce flood risk for the area. In addition, during the removal, the work crew installed three dry hydrants, increasing year-round access to the river water for the Reber Volunteer Fire Department and greatly improving public safety.

Today, many antiquated dams no longer serve a purpose and cause considerable harm to rivers by fragmenting ecosystems and putting communities like Willsboro at risk for flooding. There's growing support for removing these barriers for both ecological and safety reasons. Restoring free-flowing rivers and streams can transform our natural environment and local communities for the better.

Before



After



The Nature Conservancy and partners are working to reconnect blocked waters throughout the Boquet River watershed to restore migratory fish habitat, reduce community flooding—and let the river run. © John DiGiacomo

Making Headway on Invasive Species

Thanks to more than 30 organizations and 100 volunteers sharing their ideas, time and resources to advance the mission of the Adirondack Park Invasive Plant Program (APIPP), we are making major progress in reducing the threat of invasive species in the Adirondack region. Here are some highlights from the past year.

Safeguarding our lands



A scuba diver pulls invasive Eurasian watermilfoil in Moody Pond. © APIPP

Staff, partners, volunteers and contractors searched for invasive species in 42 New York State Department of Environmental Conservation (NYSDEC) campgrounds, over 110 recreational access points (such as trailheads and boat launches), sections of over 30 Forest Preserve units and 40 state and county road corridors in 2022. Nearly 500 new terrestrial invasive species infestations were found, bringing the total number of mapped infestations in the Adirondack region to 7,165.

However, the good news is that management is working! For instance, garlic mustard abundance at NYSDEC campgrounds in the Adirondacks has decreased by 91% since management efforts began, and the species has been locally eradicated from seven campgrounds.

In addition, research completed in 2022 shows that sites with terrestrial invasive plant infestations managed by APIPP are naturally restoring to native habitat. Over 64% of sites treated by APIPP no longer have invasive plants present.

Protecting our waters

In 2022, 75% of the 483 Adirondack waterways monitored over the last 21 years were free of aquatic invasives species. Five new bodies of water were found to have invasives, and an additional invasive plant was found in one lake that was already invaded.

APIPP and the Saint Lawrence–Eastern Lake Ontario Partnership for Regional Invasive Species Management sampled rivers searching for the DNA of nine invasive species, including rusty crayfish, round goby, hydrilla and Eurasian watermilfoil. This cross-boundary project provided APIPP with more information about the potential threat that these invasives pose to the Adirondacks.

The Adirondack Watershed Institute of Paul Smith's College is an important partner in preventing the spread of these species. The organization staffed more than 40 locations with trained stewards who educated boaters, inspected a total of 70,054 boats and decontaminated 2,815 of them. On 733 boats, stewards found and removed invasives, thus preventing them from entering other bodies of water.

APIPP is hosted by The Nature Conservancy in the Adirondacks and receives financial support from the Environmental Protection Fund administered by NYSDEC. APIPP partnered with other organizations to host workshops and events that reached over 1,900 people in 2022.

This work would not be possible without our volunteers! Join us and become a Forest Pest Hunter or a Lake Protector. To learn more about how you can help, go to https://adkinvasives.com/Events/

Newly Discovered in the Adirondacks: Beech Leaf Disease Takes Hold

The iconic American beech tree, with its graceful limbs and smooth, silvery bark, stands out in any forest. It is native to North America and is important for birds, black bears, squirrels and other wildlife. Beeches also have medicinal properties; Indigenous Peoples use them to treat a variety of ailments, including pulmonary troubles, burns and poison ivy. Hikers delight in the rustle of its leaves in autumn, since beeches hold onto their leaves longer than most other deciduous species. But the future for this important species is uncertain. It is at risk from climate change and forest pathogens, including beech leaf disease (BLD), which has recently been found in the Adirondacks.

BLD is associated with a nematode. It is unclear whether that nematode is the direct cause of the disease or whether it carries a virus, bacterium or fungus with it. The symptoms of BLD first appear in the canopy as dark bands between leaf veins which then turn leathery or crinkled. The disease results in decreased leaf and bud production that can kill a tree in two to seven years.

Discovered in Ohio in 2012, BLD has since been documented in more than 30 counties in New York State, including Herkimer County in the Adirondacks, where it was officially confirmed in 2022. Since so much is unknown about BLD, including the full cause, how it spreads and how to control or manage it, tracking BLD's occurrence is essential to developing a management strategy.

In fall 2022, The Nature Conservancy's Adirondack Park Invasive Plant Program (APIPP) activated its Forest Pest Hunters program in response to the discovery of this new disease in the Adirondacks. The program was initially created as a collaborative, community-science program for volunteers to survey local forests for hemlock woolly adelgid.

"The Adirondack region is huge, and it's impossible for us to be everywhere," says Becca Bernacki, APIPP terrestrial invasive species project coordinator for the Conservancy in the Adirondacks. "Having volunteers out there surveying means more eyes on the ground and more occurrences of invasive species being reported. APIPP simply wouldn't be as effective as it is if there weren't so many dedicated community scientists surveying forests."

APIPP is reducing the threats that invasive species pose to the Adirondack region. The work is more critical now than ever before. New invasive species continue to be found, forest pests are gaining ground and our warming climate puts additional pressure on our freshwater and terrestrial ecosystems.

While no one entity can tackle these challenges on its own, our diverse partners—nonprofit organizations, research institutions, businesses, government and committed volunteers—are powerful forces for positive action.



Shaun Kittle, APIPP communications coordinator, educates students about beech leaf disease. © Caitlin Stewart/Hamilton County Soil and Water District



Beech leaves with signs of BLD. © APIPP



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Contact Anne Salmon in New York at:

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Indigo Bunting. © Larry Master