



Bill Ulfelder © Jonathan Grassi

### From Our Executive Director

At The Nature Conservancy, science is at the heart of everything we do. In New York, and throughout the globe, we leverage research and data to inform all areas of our work and to make the best conservation decisions possible—from tackling climate change and the biodiversity crisis to improving the health of our forests, ocean and bodies of fresh water, and so much more. As you read on, you'll learn how we're partnering with experts in real time to lead critical research in our New York preserves to protect rare species and habitat health. Thank you for your support because it allows The Nature Conservancy in New York to continue these valuable initiatives. When we do this work successfully, we can all enjoy a livable climate, healthy communities and thriving nature.

Bill Ulfelder, Executive Director



An American three-toed woodpecker, one of the rarest birds in the Adirondacks © istock

## A Peek at the Science Happening in Our Preserves

When you visit a Nature Conservancy preserve, there are a few sights and sounds that are almost guaranteed—echoing birdsong, critters rustling through leaves and the crunch of your footfalls as you walk along a trail. But, when it comes to managing and caring for New York's 81,000 acres of preserves, there's often more than meets the eyes and ears. Science and data play a key role, and exciting research initiatives are happening in many of our preserves throughout the state.

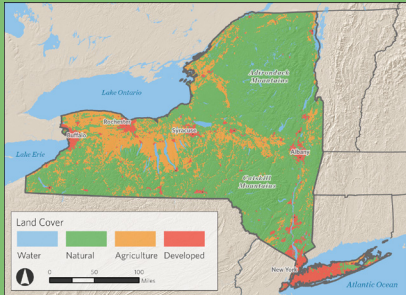
From community organizations to universities to state agencies, The Nature Conservancy works with diverse partners to support research connected to the vital ecosystems, flora and fauna found in our preserves. Every month, our team reviews requests for special access to conduct research on Nature Conservancy land. This research expands our knowledge about the natural world and advances conservation in New York and beyond.

At Spring Pond Bog Preserve in Tupper Lake, NY, a scientist studied the American three-toed woodpecker, one of the rarest birds in the Adirondacks, to better understand how it uses the preserve and increase its chances to thrive. And at a preserve in the lower Hudson Valley, the New York Department of Environmental Conservation recently monitored bog turtles to assess the health of their population and to determine what concerns may need to be addressed.

"The Nature Conservancy is a leader when it comes to conservation research and we often tap into our own data, as well as data from partners, when determining best practices for caring for our preserves," says Mat Levine, director of stewardship for The Nature Conservancy in New York. With social and data scientists on staff, we're able to consider a wide range of perspectives, ideas and possibilities when approaching a project or taking on a new challenge.



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FROM TOP: When Stephen is not working, he enjoys hiking in New York and other beautiful locations © Stephen Lloyd; A simplified example of the type of mapping Stephen's team provides for New York © TNC; A Nature Conservancy team member maps a nature trail and collects data on the trail gradient and terrain © Jonathan Grassi

# Tapping into the Power of Data Science

## Meet Director of Data Science & Spatial Planning Stephen Lloyd

### How does data science advance our conservation work in New York?

Data science is a broad field, and it has many different uses and applications across all of our initiatives in New York, and even beyond state borders. Much of our work involves collecting, analyzing and modeling geospatial data to answer complex questions—questions like where to build renewable energy in a way that benefits people and nature, or mapping important landscape corridors for wildlife migration as our climate changes.

### What's your favorite part about this facet of conservation?

I get to work across all types of geographies and on different scales—and not many conservation professionals get this variety in their day-to-day. One project might focus on wetlands in the Catskills, and the next could be looking at the full Appalachian range. Data scientists walk the line of being both specialists and generalists, and I enjoy that aspect.

### Tell us about your team and the impact you are making together.

I lead an incredible team of professionals who specialize in various areas within data science, including spatial analytics, modeling, cartographic design and web mapping. Their wide-ranging expertise enables us to tackle conservation challenges and implement well-informed and innovative solutions.

## NATURE NEW YORK

New York supports conservation initiatives around the globe. Here's a recent highlight:

# \$198 million

unlocked for new conservation investment over 15 years



Mongolia's nomadic families still rely heavily on camels. Today, most Bactrian camels are domesticated, and it is estimated that fewer than 1,000 remain wild. © Chris Pague/TNC

### Eternal Mongolia

Last spring, The Nature Conservancy and the Government of Mongolia launched Eternal Mongolia—the largest conservation initiative in our 75-year history—to support Mongolia's ambitious 2030 goals and provide lasting conservation for its lands, waters and people. Our 15 years of experience working in Mongolia have created this opportunity for historic conservation. Through Eternal Mongolia, The Nature Conservancy will help protect the planet's most extensive intact temperate grasslands—70% of which are already degraded, which threatens wildlife and impacts the livelihoods of one-third of Mongolia's population. Community involvement with planning and management is critical to a sustainable future for Mongolia. This initiative will support community-based organizations, regional associations and herder organizations as they plan for the future of their natural resources.