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From Our Executive Director

New York and the world have been grappling with a new reality. The COVID-19 pandemic affects our lives in profound ways, and I hope this letter finds you and those you love safe and healthy. During this difficult time, I am especially grateful to you as a supporter of our work to conserve the lands and waters that sustain all of nature, including humanity. I hope these stories of nature's role in keeping our coastal communities safe, the innovative approaches we're exploring to conserve the natural world, and our emphasis on the policies that are needed to sustain it give you comfort and hope. Thank you, as always, for everything that you do to make this work possible.



Bill Ulfelder, Executive Director

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Dr. Nicole Maher helps prepare a salt marsh sample for CT scanning at Northwell Health Imaging. © Dr. Troy Hill

Diagnosing Sick Salt Marshes

Salt marshes are a critical coastal defender across New York's shores and an essential part of a climate-resilient future. The problem? They can look deceptively healthy above ground, even when they have been weakened by poor water quality. To dig deeper into the root causes of sick salt marshes, Nature Conservancy team members and partners are using an unlikely tool: medical technology.

Computer-aided tomography (CT) technology gives us an inside look at how we can help. Just as a doctor may use the technology to detect a problem in a human patient, our conservation team is collaborating with Northwell Health Imaging to assess the health of salt marsh core samples.

Salt marshes play an important role in filtering water, supporting the coastal food web and absorbing wave energy, but many of these ecosystems on the coast of Long Island are sick. Chronic nitrogen pollution from septic systems and sewers has changed the way the plants grow (above and below ground), which has compromised their ability to resist erosion.

CT technology has proven to be a rapid, accurate and high-resolution method for determining salt marsh health. Interestingly, the underground botanical network of salt marshes resembles the bronchioles in human lungs.

"Environmental health is human health," says Carmen Arana, the CT technologist assisting with the project. The results are helping us better understand the conditions of salt marshes and how we can help them rebound, improving coastal restoration efforts in Long Island and beyond.



Left: Dr. Maher holds a salt marsh sample from North Greensedge Marsh. Right: A CT Scan of a sample © Dr. Troy Hill



Clockwise, left to right: Jen at Nature+ Hackathon © Michael Clarke; Group of students at Nature+ Hackathon © Michael Clarke; TIS Project Coordinator Zachary Simek using a drone in his field work © Jen Chin

Expanding Innovation and Cognitive Diversity

Meet New York Director of Conservation Innovation Jennifer Chin

Where and when did your interest in nature begin?

My interest really started when I was a kid, exploring my backyard looking for bugs. I've always liked living creatures. As I became a young adult, I had friends who introduced me and my whole family to hiking and backpacking and it grew from there. I decided to work in conservation much later on, though, after I had graduated college. The turning point was reading an article about the demise of Mongolia's Saiga antelope—I felt I needed to do something, so I left my job at Google to pursue a career in conservation.

Why is innovation important to The Nature Conservancy?

Broadly we know that the issues we're facing as an organization and planet are increasing exponentially. We need exponential solutions to address them, and this challenges our traditional ways of delivering conservation outcomes. There is a whole innovation discipline developed in the corporate sector that aims to capture new ideas, partners and opportunities and integrate them to create better and better products. The goal of my job is to translate these ideas into our nonprofit conservation context.

What do you enjoy most about your work?

This is the first full-time role focused on innovation enablement at the Conservancy, which brings with it many opportunities for growth and collaboration. My vision is an organization that is empowered to set the gold standard for nonprofit innovation. I believe that if we can figure out how to apply game-changing methodologies, all while bringing nontraditional and new partners and voices into this work, we have the potential to really transform how conservation is funded, designed and implemented. I love working with team members across New York on this change—it is challenging, fun and fulfilling. Cognitive diversity is critical to helping us come up with the most effective solutions in our climate changing world.

NATURE NEW YORK

From Our Policy Team

Last year, New York enacted the strongest climate law in the nation. The passage of the Climate Leadership and Community Protection Act made us a national leader in our commitment to clean energy and set our state on a course to confront the monumental challenge of a changing climate. This year, our state leaders are once again proposing major environmental investments to create a safer future for our children and grandchildren. Our policy team continues to work closely with lawmakers and partners to conserve clean water and natural resources and prepare our communities for the effects of climate change. Healthy natural areas-like wetlands and marshes-protect people, roads and buildings from flooding, rising seas and dangerous extreme heat. Protecting and restoring nature now can save lives and help prevent costly recovery and cleanup after storms, making conservation a powerful and cost-effective tool in the fight against climate change. Together with your support, we're creating a world where people and nature can thrive, throughout and beyond New York. Thank you for all that you do to make this work possible!



Roaring Brook culvert © Erika Bailey



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