



2023

YEAR IN REVIEW

MASSACHUSETTS NEWSLETTER

Scaling Meaningful Conservation Impact



2023 was another exciting year for The Nature Conservancy in Massachusetts, bringing groundbreakings, milestones, partnerships and new voices for our efforts. It is thanks to your confidence in us and generosity that we are able to strive for outcomes that are meaningful, measurable, deliverable and timely while also taking the time to learn and collaborate with partners and communities at the pace of trust, to ensure thoughtful and sustainable long-term solutions.

This year brought several long-awaited project implementations: the removal and replacement of the High Street Dam and bridge in Bridgewater, the action phase of the Assawompset Ponds Complex Watershed Management and Climate Action Plan, and the groundbreaking of the Herring River Estuary Restoration Project in Wellfleet. TNC has been involved with the High Street Dam and Herring River projects for more than 15 years.

With these projects and more, we seek collaboration to maximize collective impact. In 2022, TNC and MassWildlife released an updated version of BioMap, one of the state’s premier landscape protection tools (see p. 5). Since then, we’ve worked together to further the impact the tool can have for efficient and significant conservation wins in the state and beyond.

And it’s not just conservation planning that benefits from thoughtful teamwork and knowledge exchange—these principles guide our work with communities as well. Support and empowerment of the communities impacted by climate change is critical as we see more instances of extreme heat, flooding, and polluted air and water. This is where efforts like the Climate and Community Resilience Funding legislation come in (p. 5).

Knowledge sharing is also an important part of building the pipeline of conservation practitioners who will carry this work into the future. This was the first year of the chapter’s Solari Fellowship Program (p. 4), through which we’re supporting and stewarding two early career professionals as they find their footing and pursue environmental careers.

You can read more about this work in the coming pages. None of it would be possible without your support. As we get closer to 2030, the target date that TNC and the world have set to achieve climate and conservation goals, we must continue to ramp up our collective endeavors to change the our global trajectory. How we do this work is critical to shaping our effectiveness, so we’re also continuing to strengthen the Massachusetts chapter internally, fostering an inclusive and collaborative culture that enables this high-impact work.

We’re grateful that you share our vision and have contributed to advance our conservation and climate priorities. Because of you, we’re not only driving change in our own work, we’re enabling cumulative progress toward a future where all life can thrive.

Alison Bowden & Meg Connerton
Co-Interim State Directors

Alison A. Bowden *Meg Connerton*

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Watershed-Wide Community Resilience

The five interconnected ponds of the Assawompset Ponds Complex (APC) drain into the Nemasket River, a major tributary to the Wild and Scenic-designated Taunton River in southeast Massachusetts. The ponds and river support a diverse set of human and ecological needs, as one of the largest herring runs in New England, habitat for a diversity of plants and animals, public water supply for over 250,000 people in southeastern Massachusetts, and an important scenic residential and recreational area.

This system has faced a number of water quality and supply challenges over the years because of development, storm water runoff, storms, drought and more. With climate change, we’ll continue to see an increased intensity and frequency of storms and precipitation, as well as more extreme heat events, which can exacerbate flooding, drought and pollution.

In 2022, under guidance of the APC Management Team—a long-standing collaborative body made up of local municipal stakeholders, APC rangers, state agencies, and the Taunton and New Bedford water suppliers—the Southeastern Regional Planning and Economic Development District (SRPEDD) and partners like The Nature Conservancy created a Watershed Management and Climate Action Plan. They developed a set of actions that help balance the needs of maintaining water supply, improving flow and water quality, reducing flood and drought hazards and restoring ecological integrity.

Local stakeholders and project team members are now investigating and implementing the plan’s priority solutions. TNC is providing resources and support to incorporate a combination of nature-based solutions and gray infrastructure that balance the needs of nature and people.

“Enhancing or using nature to address these issues may have higher upfront costs but can result in sustainable long-term solutions and savings,” says Marea Gabriel, freshwater program manager for TNC in Massachusetts. “Many municipalities don’t have the capacity or funding needed, which is where TNC can play a role.”



COVER Great Quittacas Pond, one of the five ponds of the Assawompset Ponds Complex © Jerry Monkman/EcoPhotography
 PREVIOUS PAGE LEFT TO RIGHT Rose pogonia © Caroline Black/TNC; Alison Bowden and Meg Connerton © Loren Dowd/TNC
 THIS PAGE TOP TO BOTTOM Members of the project team in front of the High Street Dam removal site in Bridgewater © Hayley McManus; Assawompset Pond where it flows into the Nemasket River © Jerry Monkman/EcoPhotography



Freeing a River

In mid-July, Alison Bowden watched as an excavator dismantled High Street Dam on the Town River in Bridgewater, chunks of concrete crumbling into the mud. Eventually, water began to trickle through the rubble. It was a long time coming—The Nature Conservancy in Massachusetts’ Director of Conservation Science and Strategy has been a part of the effort to remove the obsolete dam and replace an adjacent bridge for over 15 years.

This project is part of an ongoing initiative in the state to remove dams that are preventing fish migration, obstructing natural river flows and contributing to flood risk. The High Street Dam was the first barrier to migratory fish coming up the Taunton River from Narragansett Bay, heading to Lake Nippenicket to spawn.

Adjacent to the dam was High Street bridge—one of the oldest bridges standing in Massachusetts—that no longer withstood flooding, posing a threat to neighbors. It was replaced with a 55-foot clear-span bridge designed to accommodate high river flows during predicted future climate conditions.

This is the latest project in a series of dam removals or upgrades on tributaries to the Taunton River. TNC has worked with partners in this watershed for decades to secure river connectivity, habitat restoration and safety for surrounding communities. (Learn more at nature.org/restoringmarivers.)



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Meet our Solari Fellows

SUPPORTING THE NEXT GENERATION OF ENVIRONMENTAL LEADERS

Involving new generations in environmental work is critical as climate consequences become more urgent. The planet needs a workforce prepared to meet the challenges we're already experiencing, as well as those to come.

To invest in this, The Nature Conservancy in Massachusetts launched the Solari Fellowship Program in 2022 thanks to a generous bequest from a donor. The program serves as a gateway for early-career professionals from underrepresented backgrounds who wish to pursue careers in conservation.

Two 2-year fellows are paired with a team in the chapter, gaining tangible experience through working on initiatives, managing an independent project, engaging in professional development, networking and more.

"Increasing access to environmental careers is so important," says Amanda Cutler, the Ocean Program Solari Fellow. Tara Christian, Policy and Partnerships Solari Fellow, agrees. "Nothing quite prepares you like doing work in practice, so gaining first-hand experience is a much-needed opportunity."

Cutler and Christian are the first two fellows of the program and started their roles in November 2022.

Building a Pipeline of Problem-Solvers

Cutler, originally from coastal Connecticut, spent her first year after graduating from Brown University in a few seasonal positions in land stewardship, forestry and outdoor education.

"After being indoors staring at a screen in college because of the pandemic, I

was ready to spend all my time outside. That first year was great for connecting with myself in nature," she says. "But I also wanted a role that was more interdisciplinary, that integrated science, technology and policy."

That—along with her desire to work on solutions to the challenges coastal ecosystems face—led her to the Solari Fellowship Program.

"The program was also appealing because it specifically called out supporting underrepresented identities, including those from multiracial backgrounds, like me," says Cutler.

Christian, who grew up in the Boston suburbs with strong connections to Asian-American communities, echoes the same sentiments. "I was excited when I saw that the fellowship opportunity emphasized connecting more people of color to conservation careers," she says.

Initially interested in environmental engineering, Christian switched to environmental policy while studying at Carnegie Mellon University because she loved the people element of policy. She took an education fellowship at the Museum of Science in Boston after graduating but shifted her attention back to policy when it came time to find her next position.

She's working on a number of state and federal policy initiatives, like supporting advocacy for TNC and partners' Climate and Community Resilience Fund bill



and participating in the Green Budget Coalition.

"The policy process is very relationship-based, so learning happens by doing, which has been a great experience so far," Christian says. "The new legislative session started at the same time I did in this role, so I've been following the process as it happens."

Her fellowship project is centered around the intersections of public health and environmental policy. She says: "The state is focused on extreme heat and air quality issues, so TNC is finding connections to nature-based solutions that reduce urban heat and clean the air, like increased trees and green spaces."



Cutler's work—primarily with TNC's state and regional coastal projects—is also at the intersection of people, policy and nature. She's supporting a few of TNC's oyster aquaculture and restoration projects, as well as a living shorelines pilot, and is working on an independent project to help analyze flood resilience within the state's BioMap tool that TNC helped develop.

"Restorative aquaculture can be part of a holistic approach to improving water quality and biodiversity, and it's already so embedded in Massachusetts culture," she says. "The practices and policies TNC are working on are focused on helping farmers, fishers and communities overcome some of the barriers to expanding these natural solutions."

Fostering Career Growth

One of TNC's key priorities for the fellowship experience is building a

strong support and mentorship system for the fellows, including access to coaching, skills development, networking and professional growth.

"I've had the opportunity to talk with a variety of TNC's partners this year," Cutler says. "Exposure and connection-building is really helpful for seeing what careers are possible within conservation. It's great to see how many are interdisciplinary, as that will attract a diversity of people to the field."

Christian is grateful for the access to mentorship she's had in this role. "I've been able to connect with other TNC staff in different states and countries doing similar—or even different—work. I'm also so appreciative of the support I've received to explore and try new things," she says. "It's been great to find other people of diverse identities in the field and stick together."

Cutler agrees: "This network is something I couldn't have built on my own."

Funding for Communities, Created by Communities

Summer 2023 brought many people face-to-face with the effects of climate change: record-breaking extreme weather, heat stress, flooding and more in Massachusetts and beyond. The impacts of these events are not felt equally by all; low-income communities, People of Color and recent immigrants often face more intense climate impacts and may not have resources available to manage them. Residents of these frontline communities historically haven't been included in conversations with policymakers about solutions that work for them. This leads to their needs not being reflected in the funding and implementation of solutions, and programs that don't address structural, racial and economic inequalities.

Massachusetts is attempting to bridge these gaps with ambitious climate policy commitments and increased focus on integrating environmental justice into solutions. To advance these efforts, The Nature Conservancy in Massachusetts convened a group of conservation, environmental justice and community-based organizations to identify the most equitable ways to raise and spend new sources of public funding for climate mitigation and adaptation.

The effort resulted in legislation filed in January, the Climate and Community Resilience Fund (SB.472/HB.750), that would establish a fund to support municipalities and organizations working at local and regional scales to address climate change. The bill would set an equitable fee on real estate property insurance to capitalize the fund. An independent governing board with majority representation by community-based organizations would decide how the fund is spent and administered.

"Some of the solutions include addressing the threats of extreme weather, reducing heat stress, increasing municipal capacity, creating jobs, fostering nature-based solutions like tree planting, and outreach and education for those rendered vulnerable," says Steve Long, director of policy and partnerships for TNC in Massachusetts. "Many of these align with TNC priorities, so we're exploring further collaboration opportunities that build on the relationships from this project."

THIS PAGE TOP TO BOTTOM Tara Christian holding a bog turtle while helping the Western Massachusetts stewardship team with tracking © Caroline Black/TNC; Christian (center) testifying at the State House for the first time in her fellowship in support of flood protection legislation © Steve Long/TNC

THIS PAGE TOP TO BOTTOM Amanda Cutler (center) helping with pre-monitoring at an oyster restoration site on Martha's Vineyard © Alley McConnell/Martha's Vineyard Shellfish Group; Cutler with a bog turtle while helping the Western Massachusetts stewardship team with tracking © Caroline Black/TNC

Mapping the Way to Lasting Conservation

Slowing biodiversity loss and reducing climate impacts is a group effort. Conservation organizations, land trusts, municipalities and states need tools to strategically identify the lands and waters whose protection and restoration is vital for species survival. In Massachusetts, there's a tool to do just that, developed by The Nature Conservancy and MassWildlife.

BioMap is a blend of conservation data and resources—including rare species, intact ecosystems, and climate-resilience data—that guides conservation plans and projects. In 2022, its third iteration was released, which incorporates municipal-level data, as well as new understandings of how to conserve climate-resilient ecosystems. (Check it out at mass.gov/biomap.)



Essex County Greenbelt Association, an organization dedicated to conserving farmland, wildlife habitat and scenic landscapes across 34 cities and towns in northeast Massachusetts, has relied on BioMap for decades for help with project selection and analysis. It aids with the prioritization of land acquisitions and informs management of their properties.

“It’s important for us to use the most up-to-date science so that our efforts are going toward the most critical and impactful places,” says Abby Hardy-Moss, the director of conservation technology and planning for Essex County Greenbelt Association. “BioMap incorporates the most current and relevant scientific information in a way that’s intuitive for people to view and understand—that digestibility is key.”

One of the association’s priorities is to help municipalities interpret and incorporate data like BioMap into their open space planning. Tools like this are critical for our shared conservation goals, and increasing access and understanding is an important step to more strategic, equitable and impactful protection.



In Haverhill, as part of a project partnership between the association and the city, BioMap data are informing conservation strategy for the Crystal Lake Watershed Initiative, aimed at protecting a critical public drinking water source and the vital habitats around it. The area was identified as BioMap Core Habitat, with essential wetlands and vernal pools that support rare species. The association received a Conservation Partnership grant from the state for the project, which uses BioMap data as criteria for granting funds. They also assisted the city of Haverhill with its successful Drinking Water Supply grant application.

“BioMap helps us tie dollars to our mission, conceptually and in action,” says Hardy-Moss. “We can point at the data and say this is why we’re working here.”

2023 Our Year in Photos



ON THE FIRELINE | In March, TNC and The Trustees of Reservations collaborated on six controlled burns at sandplain grassland ecosystems in Edgartown and West Tisbury on Martha’s Vineyard, with help from the Department of Conservation and Recreation and the towns. Prescribed fires like these help improve the health of this globally imperiled habitat by preserving fire-adapted species that depend on these unique grasslands, while reducing woody vegetation. Read about efforts on the Island at nature.org/MarthasVineyard.

A SECOND ROUND OF SOAR | In 2020, TNC and Pew Charitable Trusts launched the Supporting Oyster Aquaculture and Restoration (SOAR) program. The first round of the program purchased more than 3.5 million oysters to restore 25 natural shellfish reefs across the United States, and the second round was funded this year with \$6.3 million. In Massachusetts, we’ll be working with a few farmers this fall to place their oysters in the coastal waters of Fairhaven and Edgartown. Staff and partners conducted pre-restoration monitoring this summer.



A NEW TURTLE TRACKING TECHNIQUE | For decades, TNC in Massachusetts has been helping to monitor the populations of rare bog turtles in the state, usually done via observation and radio telemetry. This year, the stewardship team explored an alternative method to collect data that is less time-intensive and intrusive—camera traps. These are manually rigged, with a camera mounted on the inside of a bucket that has openings cut on either side. They’re placed in wetland habitats to take photos of the turtles who pass through.

BUILDING AT COLES BROOK PRESERVE | Over the summer, our Western Massachusetts stewardship team—with help from interns and volunteers—installed a new kiosk at our Coles Brook Preserve in Washington, Massachusetts. It’s another step toward our goal of having a new loop trail with parking and signage at the preserve in the coming years. The property is already open to the public for passive exploration, and we look forward to completing additional elements for a fuller visitor experience!



Massachusetts newsletter

FALL/WINTER 2023



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Plymouth gentian at Great Quittacas Pond © Jerry Monkman/EcoPhotography



THANK
YOU!

Making an Impact

Across the state, we are working on thoughtful and sustainable long-term solutions to the climate and biodiversity crises, thanks to the commitment of supporters like you.