



CHANGE IS HERE

2020 Annual Impact Report

The Nature
Conservancy
Maryland/DC





LETTER FROM THE EXECUTIVE DIRECTOR

COVER Chesapeake Conservation Corps member Kristina Soetje tags trees as part of a red spruce restoration project at TNC's Finzel Swamp Preserve. TNC, with a grant from the Wildlife Conservation Society, is conducting a genetics planting study in an effort to increase the genetic health of our western MD red spruce. © Matt Kane/TNC; **THIS PAGE** Tim Purinton, executive director of the Maryland/DC chapter of The Nature Conservancy. © Matt Kane/TNC

Dear Nature Lover,

Perfect vision is 20/20. 2020 proved the optical opposite, a year clouded with uncertainty. COVID-19 threw the world off balance. The unnecessary deaths of George Floyd, Ahmaud Arbery and others rocked societal foundations. Just up the coast, Christian Cooper, who was racially profiled while birding, reminds us that racism extends its toxic tendrils into the environmental movement that many of us, especially white people like me, have assumed to be morally pure and built on just intentions.

For example, take conservation easements, a trusted land protection tool. Land-use restrictions such as easements share a legal history with racial “redlining” and exclusionary zoning. (Redlining was the practice of shading the Black communities on maps with red to mark them as credit risks.) As we launch an urban conservation program in Baltimore, the birthplace of redlining, we are reminded that social and environmental justice must be woven throughout our conservation agenda, regardless of place. Understanding the history of the environmental movement and how it serves to support the established dominant groups will help us break down this unjust hierarchy.

Despite the tumultuous year, we have many accomplishments to share. I’m especially proud of our team members, all of whom who adapted gracefully to working from home and re-imagined peer and partner engagement. Thanks to our talented staff, trustees and supporters who sustain our mission in difficult circumstances.

While we face major societal unrest, the climate crisis is not abating, and the lands and waters we cherish will not heal themselves. At TNC, we continue to sail forward, despite the significant headwinds, and I promise we will build more equity and justice in our work, knowing it’s the only way to ensure that people and nature thrive together. That, at least, is clear.

Tim Purinton, *Executive Director*
The Nature Conservancy in Maryland and DC

This annual impact report is also available en Español at nature.org/marylanddc.

The Nature Conservancy in Maryland and DC

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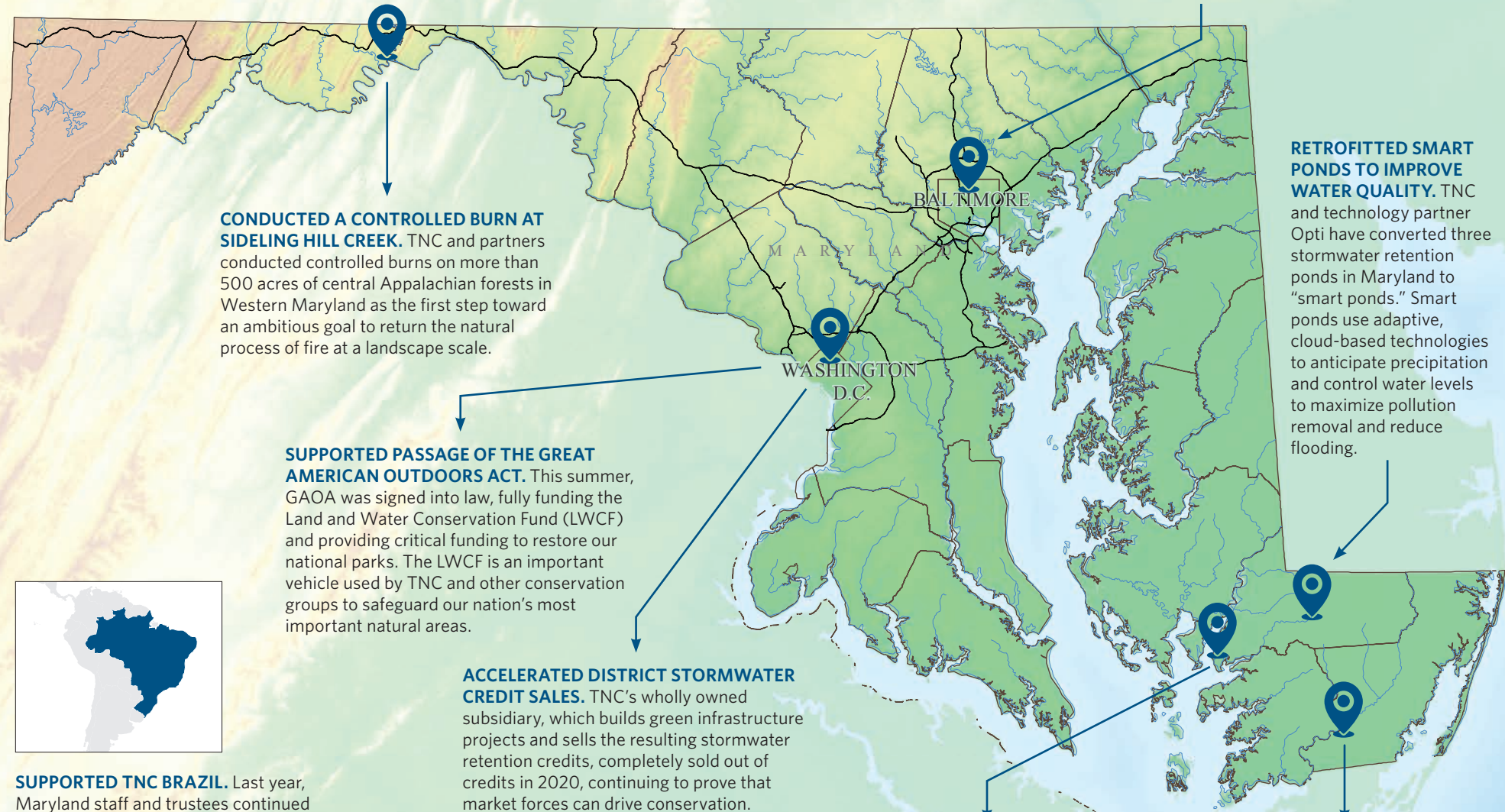
Adair Stifel

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List includes board service from
July 1, 2019 to November 1, 2020.

2020 AT A GLANCE

LAUNCHED A CONSERVATION PROGRAM IN BALTIMORE. TNC received a grant from the Baltimore-based France-Merrick Foundation to launch a conservation program in the city of Baltimore that will focus primarily on deploying nature-based solutions to stormwater pollution and flooding in the city.



CONDUCTED A CONTROLLED BURN AT SIDELING HILL CREEK. TNC and partners conducted controlled burns on more than 500 acres of central Appalachian forests in Western Maryland as the first step toward an ambitious goal to return the natural process of fire at a landscape scale.

SUPPORTED PASSAGE OF THE GREAT AMERICAN OUTDOORS ACT. This summer, GAOA was signed into law, fully funding the Land and Water Conservation Fund (LWCF) and providing critical funding to restore our national parks. The LWCF is an important vehicle used by TNC and other conservation groups to safeguard our nation's most important natural areas.

ACCELERATED DISTRICT STORMWATER CREDIT SALES. TNC's wholly owned subsidiary, which builds green infrastructure projects and sells the resulting stormwater retention credits, completely sold out of credits in 2020, continuing to prove that market forces can drive conservation.

RETROFITTED SMART PONDS TO IMPROVE WATER QUALITY. TNC and technology partner Opti have converted three stormwater retention ponds in Maryland to "smart ponds." Smart ponds use adaptive, cloud-based technologies to anticipate precipitation and control water levels to maximize pollution removal and reduce flooding.



SUPPORTED TNC BRAZIL. Last year, Maryland staff and trustees continued a learning and fundraising partnership with TNC's Brazil Program. The Amazon rainforests are the lungs of the planet and the Maryland/DC chapter is committed to helping protect this important habitat and its indigenous inhabitants.

PROTECTED WETLAND ADAPTATION ACRES. TNC protected more than 660 acres of critical habitat across Maryland last year, with a focus on protecting lands that will support the adaptation of coastal habitats in the face of sea-level rise.

RESTORED POCOMOKE RIVER FLOODPLAINS. TNC and partners restored 245 acres of floodplains along the mainstem of the Pocomoke River, contributing to the largest wetland restoration project in Maryland's history.

CHANGE IS HERE

Global Climate Solutions

CLIMATE-SMART POLICIES

We work at all levels of government.

From the United Nations, to local municipalities, TNC uses science to develop and support smart climate policies at all levels.

We advocate for a price on carbon.

Putting a price on carbon is the best way to trigger the economic shifts needed to tackle climate change at a meaningful scale.

NATURAL CLIMATE SOLUTIONS

We put nature to work.

Nature can provide 30% of the solution to climate change. TNC is working to protect more land in the next 10 years than we have in our 65-year history.

We improve soil health on farms.

Healthy soil is the cornerstone of life on earth, facilitating biodiversity, food production, water storage, and carbon sequestration. TNC works with farmers to build healthy soils.

We generate carbon credits.

TNC works with landowners, including many of our own holdings, to improve forest management activities that generate credits, which are sold on voluntary carbon markets.



CLIMATE RESILIENCE

We build resilient communities.

Natural climate solutions don't just sequester carbon, they are also a cost-effective way to reduce the impacts of climate change in our most vulnerable communities.

We protect climate strongholds.

TNC's climate science team created a comprehensive map of climate "strongholds"—areas naturally suited to withstand climate impacts. The map is being used by TNC, government agencies, and other conservation organizations to prioritize the most important lands and waters to protect and restore.

Climate Solutions in Action



Since 2008, TNC has planted more than 85 million trees.



TNC has helped protect more than 103 million acres of land and thousands of river miles around the world.



In the Seychelles, TNC led the first ever climate adaptation debt restructuring deal. The deal will provide funding to support the island nation's adaptation to climate change through improved management of coasts, coral reefs, and mangroves. The deal also creates approximately 100 million acres of marine protected areas.



TNC is a leading member of the CEO Climate Dialogue, a group of 21 companies with over \$1.4 trillion in combined annual revenue that are committed to advancing climate action and durable federal climate policy, including a price on carbon.



TNC recently protected nearly 400 square miles of land in the Appalachians. TNC's forest management activities on that land will sequester 5 million tons of carbon in the next decade. The project will also protect wildlife habitat and secure clean water, all while fostering important investments in the local economy.

Maryland/DC Climate Solutions

CLIMATE-SMART POLICIES

We work at all levels of government.

TNC MD/DC is working at the state and municipal government levels in Maryland to accelerate a transition to renewable energy and to build resilience into long-term planning activities.

We activate new sources of capital.

TNC MD/DC engages in public policy to drive additional funding to the most effective natural climate solutions. These policies have unlocked impact capital from Prudential Financial and public grants from a variety of state and federal agencies.

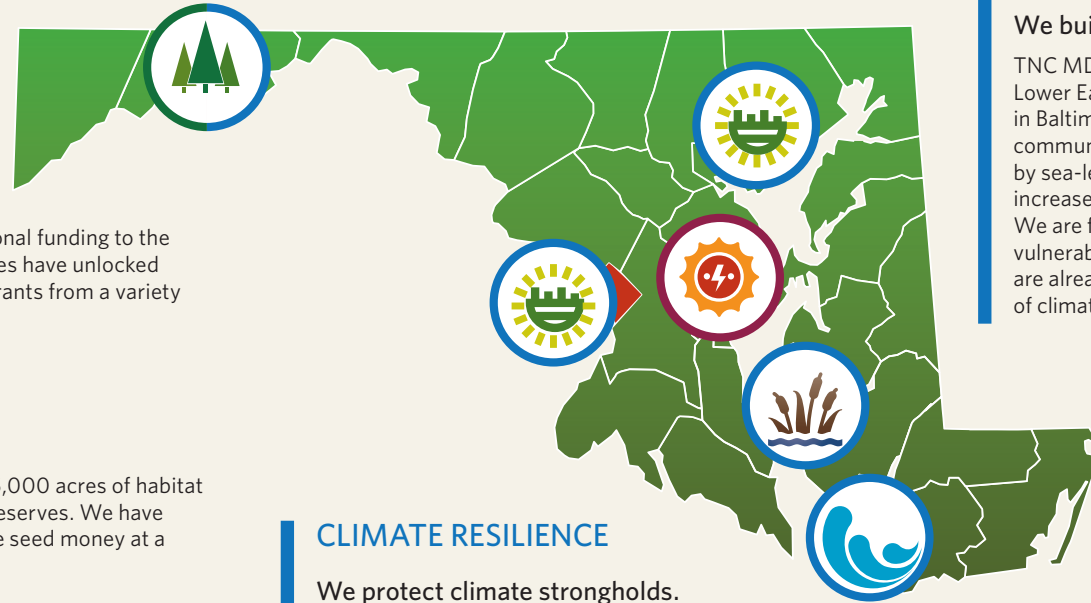
NATURAL CLIMATE SOLUTIONS

We put nature to work.

Since 1977, TNC MD/DC has protected more than 75,000 acres of habitat in Maryland, including more than 25 public nature preserves. We have achieved this by activating public funding with private seed money at a 4:1 ratio (public:private).

We improve soil health on farms.

Good nutrient management is a critical component to building healthy soils. Since 2017, TNC MD/DC has supported advanced nutrient management practices on over 13,000 acres of Delmarva farmland, and has a goal to increase adoption on over 450,000 total acres by 2023—half the tillable peninsula.



CLIMATE RESILIENCE

We build resilient communities.

TNC MD/DC is working on the Lower Eastern Shore of Maryland, in Baltimore, and in D.C. to help communities that are being impacted by sea-level rise, urban heat and increased stormwater flooding. We are focused on the most vulnerable, local communities that are already experiencing the impacts of climate change.

CLIMATE RESILIENCE

We protect climate strongholds.

We are protecting climate-resilient strongholds in the Appalachian Mountains in western Maryland and along our vulnerable coastal areas on Maryland's Eastern Shore. Priority areas are guided by science to maximize our investments and ensure the greatest benefits for nature and people.

Climate Solutions in Action



In Maryland, TNC played a critical role in passage of the Clean Energy Jobs Act, which set one of the most ambitious renewable portfolio standards in the country.



Since 2008, TNC MD/DC has planted more than 150,000 red spruce trees to sequester carbon and provide native habitat in the climate-resilient Appalachian range.



TNC MD/DC works with the Department of Defense to use funding from the Readiness and Environmental Protection Integration program to protect climate resilient "strongholds" near Naval Air Station Patuxent River's Atlantic Test Range on Maryland's Eastern Shore.



TNC MD/DC recently completed a private grant, which quantified the wave reduction and flood reduction benefits of a salt marsh on the Chesapeake Bay. The success of this study led to a \$700,000 NOAA grant to expand this research to a wider range of coastal ecosystems to protect against sea-level rise.



TNC MD/DC was recently awarded a grant to expand our work into Baltimore City, where we will focus on climate resilience, particularly in neighborhoods that will be greatly impacted by sea-level rise.



WE TRANSFORM AGRICULTURE

The world's population is growing, and so is the demand for food. Over the past century, agriculture has become the dominant land use and largest source of freshwater pollution across the globe and here in the Chesapeake Bay watershed. Despite the fact that the human population in the region has more than doubled in the past 50 years, water quality in the Bay has actually improved. How have farmers contributed to this great success story? The answer is regenerative agriculture.

This method of food production incorporates practices that improve biodiversity, water quality, and climate resiliency on farmland. The Nature Conservancy, in collaboration with the Delaware Maryland Agribusiness Association and U.S. Department of Agriculture, along with over 30

other NGO, government and private partners formed the Regional Conservation Partnership Program (RCPP) to support farmers, landowners and agribusinesses across Delmarva in the implementation of regenerative agriculture practices. A first of its kind, the partnership achieved incredible results before it concluded this year.

Over the five-year program lifespan, the RCPP assisted local farmers in the implementation of advanced in-field technological practices on more than 13,700 acres of Delmarva farmland. These advanced practices improved not only water quality and habitat, but also the farmers' bottom lines. The Delaware–Maryland 4R Alliance was formed as part of the RCPP and will serve as the mechanism through which

TNC and partners will work with farmers on regenerative agriculture into the future.

The RCPP also helped permanently protect and restore more than 2,900 acres of wetlands, a substantial portion of which stemmed from one of the largest ecological restoration projects in Maryland's history, the Pocomoke River restoration project. When this project is complete in the next two to three years, the Pocomoke River will see an annual reduction of 71,000 pounds of total nitrogen, 7,600 pounds of total phosphorus, and 47,500 pounds of total sediment into the Chesapeake Bay.



GLOBAL CONNECTION → TNC sustainable agriculture program director Amy Jacobs (middle) and agribusiness partner Mike Twining (right) discuss advanced nutrient management as part of a field trip for representatives from TNC China's fledgling sustainable agriculture program. Ying Li and Nan Zeng (left), leaders of TNC China's ag team spent two weeks touring U.S. farms last year with TNC staff and partners, starting in Rock Hall, Maryland.

LEFT A farmer inspects a soybean crop on the Eastern Shore of Maryland. © TNC; RIGHT TNC staff discuss advanced nutrient management with an agribusiness partner. © Severn Smith/TNC.

WE RESTORE APPALACHIAN FORESTS

Forests, remarkably unbroken, stretch almost 2,000 miles along the Appalachian Mountain spine from Georgia to Quebec. It is a globally important forest range, and Western Maryland plays a particularly critical role in the forest's connectivity. The Nature Conservancy is working in Maryland to utilize science and build relationships with private and public landowners to keep this forest connected and resilient.

Over 60 percent of Appalachian forests are privately owned by individuals and families, which makes family forest landowners crucial conservation partners. In 2019, TNC launched a direct mail campaign to connect Western Maryland landowners with resources and programs that will help these landowners manage and protect their land with the goal of maintaining forest health and connectivity. In just under six months, we received more than 70 responses from local landowners who were interested in enhancing the resiliency of their forests. Six landowners have already agreed to participate in an invasive species management pilot project, in which they will implement techniques meant to reduce and control invasive plants like Japanese stiltgrass and mile-a-minute.

This past year, TNC hit another major milestone in our resilient forests program in Western Maryland: TNC and partners conducted controlled burns on more than 500 acres of central Appalachian forests in Western Maryland as the first step toward an ambitious goal to return the natural process of fire at a landscape scale. As the Maryland/DC chapter celebrates our 30th anniversary of conducting controlled burns, primarily on the Eastern Shore, we are now leveraging that expertise and trust to return the natural process of fire to the Appalachians through partnerships and community education.



TNC fire practitioners Samantha Myers, Deborah Landau and Deborah Barber (left-to-right) pose for a photo after a successful controlled burn at the Sideling Hill Creek Preserve. © Bridget Moynihan/TNC

GLOBAL CONNECTION → Maryland/DC chapter executive director Tim Purinton (left) led a group of staff and Trustees to Brazil last year as part of an ongoing learning and fundraising partnership. The group spent several days in the Amazon interior with the Xikrin tribe to help amplify their voices as they fight to protect their indigenous rainforest lands.



WE BUILD GREEN CITIES

The mid-Atlantic region has experienced record rain and heat for the past two years. These climate impacts are most heavily impacting cities, where stormwater runoff, flooding, and deadly heat waves have become a major problem. In Washington, D.C., we are working with community partners and landowners to implement natural solutions to these challenges. With a focus on using green infrastructure to retain and filter stormwater runoff, The Nature Conservancy—through a wholly owned subsidiary called District Stormwater—has become the largest voluntary supplier of Stormwater Retention Credits in the D.C.’s stormwater credit-trading market, 80 percent of which were sold to developers.

In 2015, when TNC first decided to launch an urban stormwater program in D.C., the long-term goal was to help establish the D.C.’s stormwater credit-trading market concept. Since then, we have worked hard to raise impact capital, hire dedicated staff, work patiently with landowners, and help the city create policies and incentives. Today, our efforts have paid off, and we are thrilled that 2020 was a breakthrough year for market. Cities around the world are looking at D.C. as a model and many cities are now taking steps toward implementing similar market-based approaches to tackling their stormwater problems.

The biggest news from the Maryland/DC chapter’s urban conservation team this year was the announcement that we are now expanding our work

to the city of Baltimore. Thanks to a grant from the Baltimore-based France-Merrick Foundation, we are launching an urban conservation program there with the goal of weaving our mission into the fabric of this vibrant community. Although Charm City lives up to its name in many ways, it has also suffered a long history of systemic inequity, segregation and racism, the effects of which are still visible today. TNC understands the importance of establishing local relationships and amplifying community voices, which is why we are taking an intentional and thoughtful approach to our Baltimore work.

GLOBAL CONNECTION → TNC’s Illinois chapter has partnered with the Chicago Metropolitan Planning Council to launch a new initiative called StormStore. Developed in part through consultation with the Maryland/DC chapter, StormStore is a county-wide stormwater market that incentivizes developers to disperse stormwater management requirements throughout the watershed with nature-based green infrastructure both on and offsite.



TOP Pedestrians walk along K Street during rush hour as a derecho storm descends on Washington, D.C. © Greg Kahn; BOTTOM Many neighborhoods in Chicago suffer from chronic flooding. © Noel Rozny/TNC

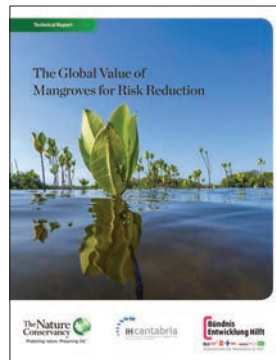
WE STRENGTHEN COASTS

Along Maryland's Chesapeake and Atlantic coasts, tidal wetlands act as the first line of defense against storms and rising seas. To better quantify how these natural coastal features reduce the impacts of storm surge, The Nature Conservancy partnered with George Mason University (GMU) and the Maryland Department of Natural Resources on a wave attenuation study in 2018. After collecting data for one year from sensors installed on a Deal Island marsh, we found a striking data point: the first few feet of tidal marsh reduced wave height by up to 90 percent.

The success of our Deal Island wave attenuation study has now led to a three-year grant from NOAA's Effects of Sea Level Rise (ESLR) Program to study and quantify the benefits of coastal habitats across the Chesapeake and Atlantic coasts. Through this grant, we are working with GMU, MDNR, and an advisory committee of regional experts and coastal managers to model how natural coastal features reduce the impact of storm surge and flooding now and into the future considering numerous sea-level rise projections. We will also develop scenario models to assess the effectiveness of different restoration techniques for improving protective coastal habitats.

TNC is also very excited to announce that we have secured a 2020 Department of Defense Readiness and Environmental Protection Integration (REPI) Challenge Award. In Maryland, our REPI project aims to conserve 4,000 acres of coastal habitat along the Atlantic Test Range's special use airspace to reduce the threat of incompatible development within the airspace and within marsh migration corridors. This project is a win for TNC as it will protect marsh migration corridors, improve the water quality of the Chesapeake Bay and provide communities a natural defense against storms and rising seas.

GLOBAL CONNECTION →



In 2018, TNC and several academic partners published a study that quantified the global value of mangroves as part of the International Climate Initiative. TNC's Maryland/DC chapter is using this study and the scientific methodology behind it as a model for our work to quantify the benefits of natural coastal habitats across the Chesapeake Bay.



LEFT Report cover for TNC's Global Value of Mangroves for Risk Reduction study © TNC; RIGHT Scientists from TNC and GMU install wave energy sensors at Deal Island, Maryland as part of our NOAA ESLR wave attenuation study. © Severn Smith/TNC

OUR YEAR IN PHOTOS

2020



↑
A STUDENT FROM THE ALLEGANY COLLEGE OF MARYLAND'S FORESTRY SCHOOL sprays herbicide onto a girdled locust tree as part of a red spruce restoration project at TNC's Finzel Swamp Preserve. Through a grant from the Wildlife Conservation Society, TNC is conducting a genetic planting study in an effort to increase the genetic health of Maryland's red spruce population. © Matt Kane/TNC



→
TNC FIRE MANAGER GABE CAHALAN delivers a morning safety briefing to a fire crew prior to a controlled burn at the Sideling Hill Creek Preserve in western MD. This successful burn covered 55 acres, and we are already seeing improved forest health, including the regeneration of table mountain pine, a tree species that requires fire to reproduce. By conducting this burn, we strengthened relationships with critical partners to accelerate the use of this forest management technique in the region and to strengthen the resiliency of the central Appalachians. © Severn Smith/TNC



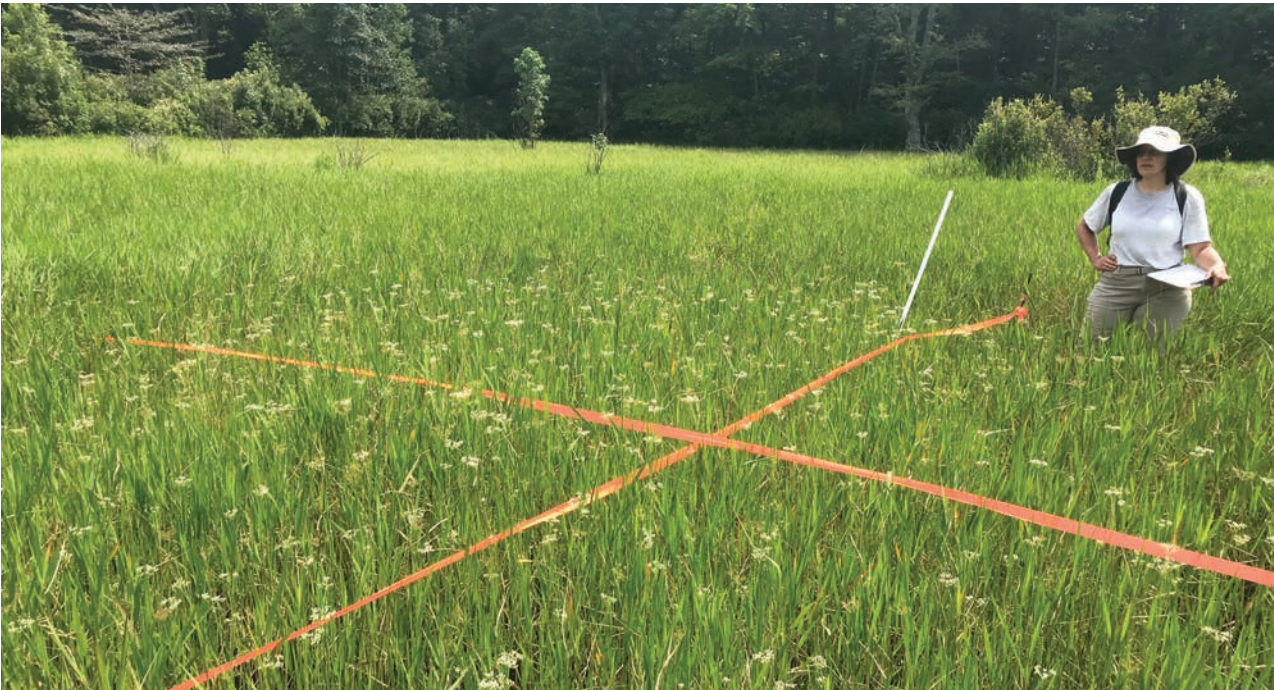
TNC DIRECTOR OF LAND MANAGEMENT DEBORAH BARBER stands beside the Maryland state champion bald cypress tree on TNC's Nassawango Creek Preserve during a preserve monitoring visit. This section of the preserve has been recognized as old growth by the Old Growth Network, an organization that is working to identify old growth forests in every county in the United States. © Severn Smith/TNC



Love photos? Follow us on Instagram to see conservation in action around Maryland and D.C. [instagram.com/nature_dc/mdva](https://www.instagram.com/nature_dc/mdva)



VOLUNTEERS SPENT A COLD FEBRUARY DAY planting and cataloging longleaf pine trees at TNC's Plum Creek preserve near Sharptown, MD as part of an assisted migration project. TNC is planting longleaf pine to the north of its historic range as an experiment to determine whether human intervention can help this iconic species persist as the climate warms. We are regularly burning at this site to mimic the natural fire regimes that these trees require. © Severn Smith/TNC



CONSERVATION ECOLOGIST DEBORAH LANDAU surveys the health of a community of rare plants called Canby's Dropwort at our Pristine Pines Preserve. TNC conducts controlled burns at this wetland habitat in order to restore its natural condition and the plants and animals that call this place home, including this globally rare plant. Prior to burning, we documented a dwindled population of Canby's Dropwort. Since burning, there are now over 3,000 plants, a true testament to the power of controlled fire as a tool to enhance biodiversity. © Chase McLean/TNC





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