

THE TIME IS NOW FOR
CARIBBEAN
CLIMATE ACTION

The 2017 Atlantic tropical storm season was one of the worst in recorded history,

with two Category 5 hurricanes unleashing catastrophic damage across multiple Caribbean islands within one month. Hurricane Irma, the most powerful Atlantic storm on record, and Hurricane Maria together resulted in hundreds of deaths and hundreds of billions of dollars in economic losses. Barbuda, Dominica, Puerto Rico, St. Maarten and the U.S. Virgin Islands were devastated by the storms, while many other islands suffered severe damage as well. Not only were lives lost, but homes, businesses, livelihoods, infrastructure, landscapes and ecosystems were destroyed.



Emmanuel Irizarry-Soto
Coral Restoration Manager

I was on St. Croix in the U.S. Virgin Islands when Hurricane Maria came, packing winds of up to 175 mph. This is a number many people hear on the news, but what it means when you're on a small island at the mercy of a Category 5 hurricane: winds powerful enough to literally tear roofs off houses and massive trees right from the ground. We had begun taking disaster precautions four days in advance, but this did not prepare us for the full impact of the hurricane once it hit. Through the night, winds and torrential rain increased to a level I have never heard or seen before. It sounded as if the skies had cracked open and were shattering down upon us. The day after was a scene of total devastation and people looked stunned as they slowly ventured outdoors.

My relief that the hurricane had finally passed was fleeting because Maria was then headed directly to Puerto Rico, where my six-year-old son was with his mother. My parents live there too, and with all internet and phone connections gone, there was no way for me to know if my son and family were safe. That is a kind of worry I had not experienced before. When you have no news at all, it is hard not to imagine the worst. Those were some of the longest, hardest days of my life.

I was immensely grateful when a rescue flight was made possible through a Conservancy trustee and I could get off the island to Miami. Due to weather conditions, we had to fly low over Puerto Rico and I could see the horrific destruction across the island — rivers and streets flooded, houses and cars smashed. It was shocking and I wished we could land right there and then so I could go find my son. As it turned out, I spent a week in Miami trying to get news about my family. When I finally heard they were safe, my relief was overwhelming. And when I could finally fly into Puerto Rico and hug my son, there were many tears of relief and gratitude shed that day — by both of us.

ON THE COVER Satellite image of Hurricanes Maria and Jose bearing down on the Caribbean © NASA/NOAA **THIS PAGE** Maria tore pieces of roof off historic buildings and pummeled the landscape at Estate Little Princess, a Conservancy preserve on St. Croix, U.S. Virgin Islands. © Emmanuel Irizarry-Soto/TNC; **INSET** Emmanuel Irizarry-Soto © TNC



An immediate-response recovery team made up of fire and forest crew members from throughout The Nature Conservancy was deployed to the U.S. Virgin Islands, home to our nature preserves that protect important land, historical structures, coastal areas, coral restoration nurseries and endangered sea turtle nesting sites.



Alicia Miñana de Lovelace
Member, Caribbean Board of Trustees

Puerto Rico is where I grew up and where my parents live. Watching the news as Hurricane Maria approached and it became more and more clear what a serious threat they were facing, I don't know who was more terrified, me or them. The only way to alleviate some of the anxiety was to keep checking in with other Puerto Rican friends of mine whose loved ones were stuck on the island. And to call my parents and go over safety precautions repeatedly.

As the storm finally arrived, the emotional toll on each of us who had elderly parents, grandparents and other relations grew to a frenzy. It was surreal to have to ask friends in the following days if their families had survived. Some of us didn't hear from our families for many days and had to brace for the worst. We knew they had no electricity or running water and that food would be running out.

When I finally heard from my parents, I was enormously relieved but still overwhelmed, as they were, by the enormity of the destruction across the island. Because my parents are not able to use the stairs in their building and the elevators were out, they were stuck inside for two weeks before they could be moved somewhere safe with access to basic necessities. They were lucky in many ways, but when I think of the millions of people from my Caribbean home, young and old, struggling day after day with no electricity and scarce access to food and drinkable water for so long, my heart aches for them.

MOVING FORWARD

The role of climate change in natural disasters like Irma and Maria must be assessed, quantified and used as a catalyst for inspiring informed climate resilience strategies. Climate change has increased ocean temperatures and will continue to do so; future greenhouse gas emissions will determine by how much. There is broad consensus among scientists that ocean warming is creating an upswing in the intensity, duration and frequency of tropical storms. Even more alarming is the finding that climate-related elevated sea levels and increased rainfall are amplifying the danger and destruction that storms bring.

In many cases, Caribbean low-lying islands contribute the least to climate change yet suffer from its impacts the most. Today, more than ever, it is imperative to build resilient islands and coastal communities that have a fighting chance against this threat. It was heartbreaking to witness the wrath of Irma and Maria tear through the Caribbean, and The Nature Conservancy is moving forward in the aftermath with more passion and purpose than ever. We are implementing ecosystem-based solutions for climate resilience in rebuilding efforts across the Caribbean for meaningful, long-term recovery. **Learn more at nature.org/CaribbeanClimate.**

As always, we are immensely grateful for your confidence in our work, and **we truly value the opportunity to help build a bright future for the Caribbean with your support.**



Michael Savarin
President of TanTan Village Development Corporation, a nonprofit organization and Conservancy partner

Every single person in Dominica has been impacted by Hurricane Maria, and almost every single element of nature. After the storm, it was apocalyptic. Everything was dry and brown. It was difficult to find a leaf, to find anything green at all. It was heartbreaking to see our beautiful island, that we have worked so hard to protect, so wounded and scarred.

An early assessment found that roughly 50% of trees were felled and 80% were defoliated. Most homes were damaged, many with roofs torn off or flooded by overflowing rivers, which also destroyed bridges and roads. Our coastline, already reduced by 100 feet or so in some areas over the past two decades, is now even more eroded. Fortunately, the Conservancy did baseline studies of coral that can be used to evaluate damage to our reefs. It is deeply saddening to see our hard work to protect our ocean and coasts suffer such setbacks.

But, after all the rain, the trees left standing are turning green again. We are trying to take these signs of hope and move forward. We must stabilize our shores and restore coastal habitat. With the damage to our trees and reefs, we are even more vulnerable to storms and flooding. We need to rebuild for resilience — in our homes, landscape, coastlines and infrastructure. We know there will be more storms like we just survived. Now is the time to use novel approaches and persevere.



Jessica Wiseman
Director of Marketing

The day Maria ravaged the island of St. Croix, where I live, was a day filled with fear, but in many ways the aftermath is worse. Nature reveals its power in a relatively short but terrifying burst, and then the long struggle begins to heal our shattered island. At the time of writing this, six weeks after the hurricane, we're still driving past snapped telephone poles and 85% of the island is still without power. The challenges my neighbors and I face daily to accomplish the simplest tasks seem never-ending. But it is the strength of community, the ever-present "how can we help" spirit that allows us to keep picking up the pieces, literally and figuratively, of our lives.

While the aftermath is long and difficult, it also reveals nature's resilience in small but amazing ways. The ocean has turned from angry, murky brown back to idyllic, postcard blue. The sand is still dotted with dead coral heads that were ripped from the sea floor by the storm, but I can now see turtle tracks again as I walk along the beach — and what used to be such a normal sight suddenly feels new and encouraging and full of hope.

The power and resilience of nature is something I constantly talk about for my job, but I can now say firsthand it is like nothing else in this world. A force of nature decimated the island I love, but with time and healing, the turtles once again make their way from the ocean to their nests along the shore. Life returns.

THIS PAGE CLOCKWISE Residents in Portsmouth, Dominica, were left with no shelter when their roofs were completely torn off during Hurricane Maria. © Chad Ambo/Discover Dominica Authority; The historic St. Patrick Church in Grand Bay, Dominica, was left with no roof and severe structural damage. © Chad Ambo/Discover Dominica Authority; The Conservancy's recovery team on St. Croix, U.S. Virgin Islands © Keith Tassin/TNC; Alicia Miñana de Lovelace © TNC

THIS PAGE CLOCKWISE A rescue flight flown by Conservancy trustee and friend Jack Long arrived on St. Croix a few days after Hurricane Maria with much-needed relief supplies. © TNC; The community of Newton tries to clear debris from their flooded street in Roseau, Dominica. © Chad Ambo/Discover Dominica Authority; Damaged homes along the coastline in Mayagüez, Puerto Rico, sink into the elevated waters after Hurricane Maria. © Anthony Dooley; Jessica Wiseman © Jack Downes; Michael Savarin © Lucienne Cross/TNC

CARIBBEAN

2017 IMPACT REPORT

DEAR FRIENDS



It is with humility and spirited determination that we celebrate our achievements over the past year. Focusing on adaptive solutions that are rooted in nature and guided by science, we continue making inspiring and material progress by conserving and restoring our ocean, fisheries, mangroves and coral reefs, while building stronger, more resilient coastal Caribbean communities.

Today, threats to our planet and to the Caribbean are greater than ever. As climate change and its drivers continue to escalate, it is disturbing and disheartening to see both our values and science cynically ignored for short-term political advantage. This year, the Caribbean suffered a catastrophic hurricane season with multiple storms, including the most powerful Atlantic hurricane in recorded history, which resulted in many lives lost, widespread destruction across numerous islands and economic losses estimated at hundreds of billions of dollars. The role of climate change in events such as this cannot be ignored. Now, more than ever, we must resist and persevere, remaining steadfast in our efforts to secure a healthy, prosperous future for both people and nature in the Caribbean — more committed and confident than ever that this vision is within reach.

In 2017, we are particularly proud of progress made launching our new coral restoration initiative, which builds on alliances with a network of leading coral science and conservation institutions and our partners in the region. Through these partnerships, we are developing and testing novel alternatives for coral restoration, all looking at scaling coral reef conservation across the Caribbean. From teaching and promoting sustainable fishing practices to bringing mangrove forests and coral reefs back to life to benefit both people and nature, the Conservancy continues to help ecosystems and communities thrive by restoring the inextricable link between natural resources and livelihoods.

Thank you for giving us the opportunity to rise to the conservation challenges in the Caribbean, and for sharing in the momentous strides achieved this past year. Our work is made possible by generous supporters like you.

Michael J. Kowalski

Michael J. Kowalski
Chairman, Caribbean Board of Trustees

A Solórzano

Luis A. Solórzano
Executive Director, Caribbean Division

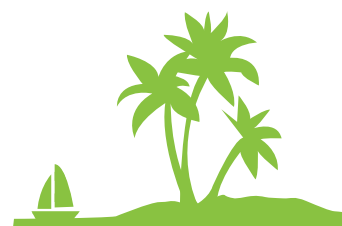
ON THE COVER Red mangroves grow along the edge of Baie Liberté in Haiti, helping to protect vulnerable coastal communities from the impacts of climate change, including flooding, erosion and extreme weather events. © Tim Calver **THIS PAGE** LEFT TO RIGHT An octopus rests on elkhorn coral. © Paul Selvaggio; (L-R) Luis A. Solórzano and Michael J. Kowalski in St. Croix, U.S. Virgin Islands © Kemit-Amon Lewis/TNC **OPPOSITE PAGE** Atlantic Ocean © iStock



WHERE WE WORK

2017 By the Numbers

114,450 Trees planted throughout the region



10,950,238

Acres of marine and coastal area protected to date under the Caribbean Challenge Initiative

65%

Of the way to meeting the Caribbean Challenge Initiative goal of protecting at least 20% of nearshore marine environments by 2020



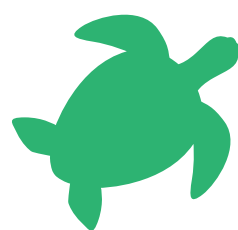
750,000

Coral embryos created through the first successful coral spawning expedition in the Virgin Islands, led by the Conservancy and partners

4,150



Acres of mangrove forest mapped using drones to inform conservation and restoration efforts



274

Endangered sea turtles — both green and hawksbill — nested at the Conservancy's Jack and Isaac Bay Preserve in St. Croix

6,000 Corals outplanted to restore reefs



1,991

Volunteer hours donated

800

Students attended Reef Week in Grenada to learn about the importance of conserving reefs and mangroves



OCEAN

Ensuring a healthy, productive ocean that supports livelihoods and provides sustenance to the millions of people who depend on it

SHERRY CONSTANTINE

EASTERN CARIBBEAN SENIOR PROGRAM MANAGER



"Through the commitment of island nations working together, the Conservancy completed its four-year Eastern Caribbean Marine Managed Areas Network project with many victories to celebrate for our ocean and fisheries and for people. The project ignited a collective drive within communities across the islands to work toward their shared marine conservation goals. Through this collaboration, we were able to address immediate, on-the-ground issues like restoring severely damaged mangroves that provide juvenile fish habitat, as well as forward-looking concerns like improving marine monitoring practices. The project also developed and enhanced sustainable alternative livelihoods that allow fishers and local communities to earn a living while protecting natural resources."

How We Sea the Future

Challenging the Status Quo

REGION-WIDE

Ocean protection in the Caribbean has reached remarkable milestones through the *Caribbean Challenge Initiative* (CCI) — a historic effort launched with the support of the Conservancy and partners that brings nations across the region together in a commitment to protect and manage at least 20% of their nearshore marine environment by 2020.

- Four of the 11 CCI member nations have achieved their 2020 goal early: the Dominican Republic, Puerto Rico, St. Kitts & Nevis and the U.S. Virgin Islands
 - Haiti became the eleventh nation to join the CCI and declared nearly 260,000 acres as new marine managed areas
 - St. Kitts & Nevis declared a new marine managed area encompassing 60% of its marine shelf
 - Grenada declared a new marine managed area that protects several major dive sites supporting tourism-related livelihoods
- Nine of the 11 CCI member nations have established national trust funds to work in partnership with the *Caribbean Biodiversity Fund*, a regional funding tool developed by the Conservancy and partners that helps Caribbean governments create a financially sustainable pathway to effective marine management

DIVE DEEPER: Learn more about the Caribbean Challenge Initiative at nature.org/CaribbeanChallenge

The Nature Conservancy in the Caribbean

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Cross-border Collaboration

DOMINICAN REPUBLIC AND HAITI

The Conservancy brought together government agencies and local partners from the Dominican Republic and Haiti, the two bordering countries that make up the island of Hispaniola, for a first-of-its-kind binational event. With a longstanding history of political tensions, representatives from each country convened to outline a collaborative strategy to address overfishing, biodiversity loss and degradation of their shared marine and coastal environments, including mutually beneficial management plans for Three Bays National Park in Haiti and Montecristi Protected Areas in the Dominican Republic. This opportunity, created through the *Caribbean Marine Biodiversity Program* (funded by the U.S. Agency for International Development), provided the neighboring countries with a platform for ongoing coordination, an important step toward productively managing the ocean and natural resources they depend on every day.

DIVE DEEPER: Learn more about the Caribbean Marine Biodiversity Program at nature.org/CaribbeanBiodiversity

An Alliance is Born

THE BAHAMAS

The Conservancy launched *Bahamas Protected*, a community-oriented initiative designed to raise awareness and boost stakeholder support for marine conservation. With over 13 million acres of marine area already protected, The Bahamas has hit the halfway mark on the way to its target of 20% protected coverage by 2020. *Bahamas Protected*, created with partners Bahamas National Trust and Bahamas Reef Environment Educational Foundation, provides a unified call to action, bringing communities together to champion protected area declarations and allowing those that directly benefit from marine conservation to help the country successfully reach its goal.

CONNECT: Follow *Bahamas Protected* to learn more about marine conservation in The Bahamas [@242protected](https://www.facebook.com/@242protected)

Six Island Nations Conquer Conservation Goals

ANTIGUA & BARBUDA, DOMINICA, GRENADA, SAINT LUCIA, ST. VINCENT & THE GRENADINES, ST. KITTS & NEVIS

Across six countries in the Eastern Caribbean, the Conservancy and partners declared two new marine managed areas, strengthened 18 existing ones, launched 21 sustainable livelihood projects that will reduce long-term fishing pressures and mapped each island's nearshore environment to allow for better marine management. This work was part of the *Eastern Caribbean Marine Managed Areas Network* (ECMMAN), a four-year project supporting islands in efforts to manage their marine environments and build coastal resilience. Closing its final year, ECMMAN celebrated an impressive list of achievements — from replanting thousands of mangroves to launching public awareness campaigns — that will have enduring impacts on nature and people.

THIS PAGE Fishermen in the waters between Île à Vache and Les Cayes in Haiti © Tim Calver **OPPOSITE PAGE** A warden monitors a marine managed area at Rat Cay near Andros Island, The Bahamas. © Erika Nortemann/TNC **INSET, TOP TO BOTTOM** Mangrove seedlings are transported for a restoration project at Ma Kôté in Saint Lucia. © Lucienne Cross/TNC; Adult bluehead wrasse with juveniles in The Bahamas © Jeff Yonover; Shenique Albury-Smith © Anton Smith



SHENIQUE ALBURY-SMITH BAHAMAS PROGRAM DIRECTOR

“By working directly with communities to establish and design new protected areas, we significantly increase the chances of successful long-term marine management. People want to be a part of protecting the natural beauty of their islands and improving livelihoods and wellbeing in their communities. Effective marine management provides conservation, economic and recreational opportunities that make these advances possible. Through Bahamas Protected, we’re steadily gaining the momentum needed to reach the country’s marine conservation goals by mobilizing community support and working collaboratively with local government agencies.”



Fishing Smarter

Better Nets for Nature and People

DOMINICAN REPUBLIC

A new tool is making seafood-supported livelihoods more productive and safer for marine environments. The Conservancy is teaching shrimp fishers to make and use *suripera* nets in Samaná Bay, home to the most extensive mangroves and shrimp fisheries in the Dominican Republic and critical calving grounds for humpback whales. This work, part of the *Caribbean Marine Biodiversity Program*, will help protect overfished species and preserve biodiversity in the area, as these special nets are engineered to have virtually zero unintended fish catch. They also reduce damage to marine habitat, boost fisher incomes by bringing in larger shrimp, save fuel costs by using wind and tide movements and create an alternative income source for fishers and craftspeople who make and sell them.



Sustainability Becomes Reality

THE BAHAMAS

The spiny lobster contributes over US\$70 million each year to the Bahamian economy — and now a sustainable lobster fishery for the country is one giant step closer to becoming a reality. For several years, the Conservancy has been helping The Bahamas prepare for the Marine Stewardship Council's seafood certification process, and the extensive eligibility requirements have now been met. Certification will protect habitat, help secure livelihoods and allow fishers to access new markets for their catch. The Conservancy and partners also started a similar process to inspire and determine tangible plans for bringing the Bahamian queen conch fishery, valued at over US\$7 million annually through a Conservancy-led stakeholder analysis, toward sustainability.

A Clear Path to Better Fishing

JAMAICA

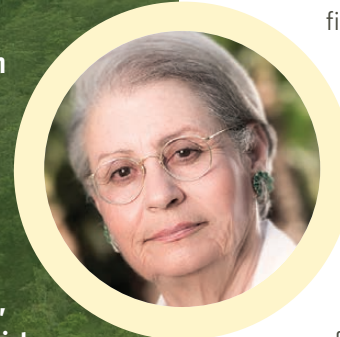
To help bring about sustainability for Jamaica's lobster fishery, the Conservancy introduced *FishPath* for the first time in the Caribbean. *FishPath* is a decision-aiding software, developed by fishery experts and Conservancy scientists, that offers an assessment, monitoring and management guide for fisheries — taking into account not only the local marine environment, but also relevant social and economic data. Using the new software, the Conservancy worked with the Jamaican government to evaluate improved strategies for the lobster fishery, the country's second highest seafood earner. Through the *Caribbean Marine Biodiversity Program*, on-the-ground trainings are being conducted at key fishing sites on Pedro Bank and other areas to provide tools and teach fishers practices that support enhanced management actions, like those recommended through *FishPath*.

THIS PAGE A fisher mends a *suripera* net. © Tim Calver; INSET, TOP TO BOTTOM *Suripera* nets at work in Samaná Bay in the Dominican Republic; Fishers at a training site at Middle Cay in Jamaica's Pedro Bank © Sonnet Morgan/C-CAM Foundation; A spiny lobster in The Bahamas © iStock

ROSA M. BONETTI DE SANTANA

MEMBER, CARIBBEAN BOARD OF TRUSTEES

"The Dominican Republic is my home and holds a special place in my heart. Helping to ensure that fishers can depend on the sea and communities can depend on freshwater — this work has lasting, demonstrable impact and it is very gratifying to be a part of it. I'm inspired to know that future generations will benefit from what the Conservancy is doing today. Not only does our work help secure tomorrow's livelihoods and economies, it energizes and empowers innovative young conservationists who cherish the country's natural treasures as much as I do."



Fighting for Vulnerable Species

DOMINICAN REPUBLIC

The Conservancy was instrumental in bringing about a ban on the fishing and trading of all species of sharks, rays, parrotfish and sea urchins in the Dominican Republic — sharks and rays indefinitely, sea urchins for five years and parrotfish for two years. These species are critical to preserving marine biodiversity and maintaining thriving coral reefs. The Conservancy worked closely with the Dominican government's Ministry of Environment and raised awareness throughout communities to help bring about this legislation, which was enacted as part of the country's *Caribbean Challenge Initiative* commitment and will benefit ocean health for years to come.

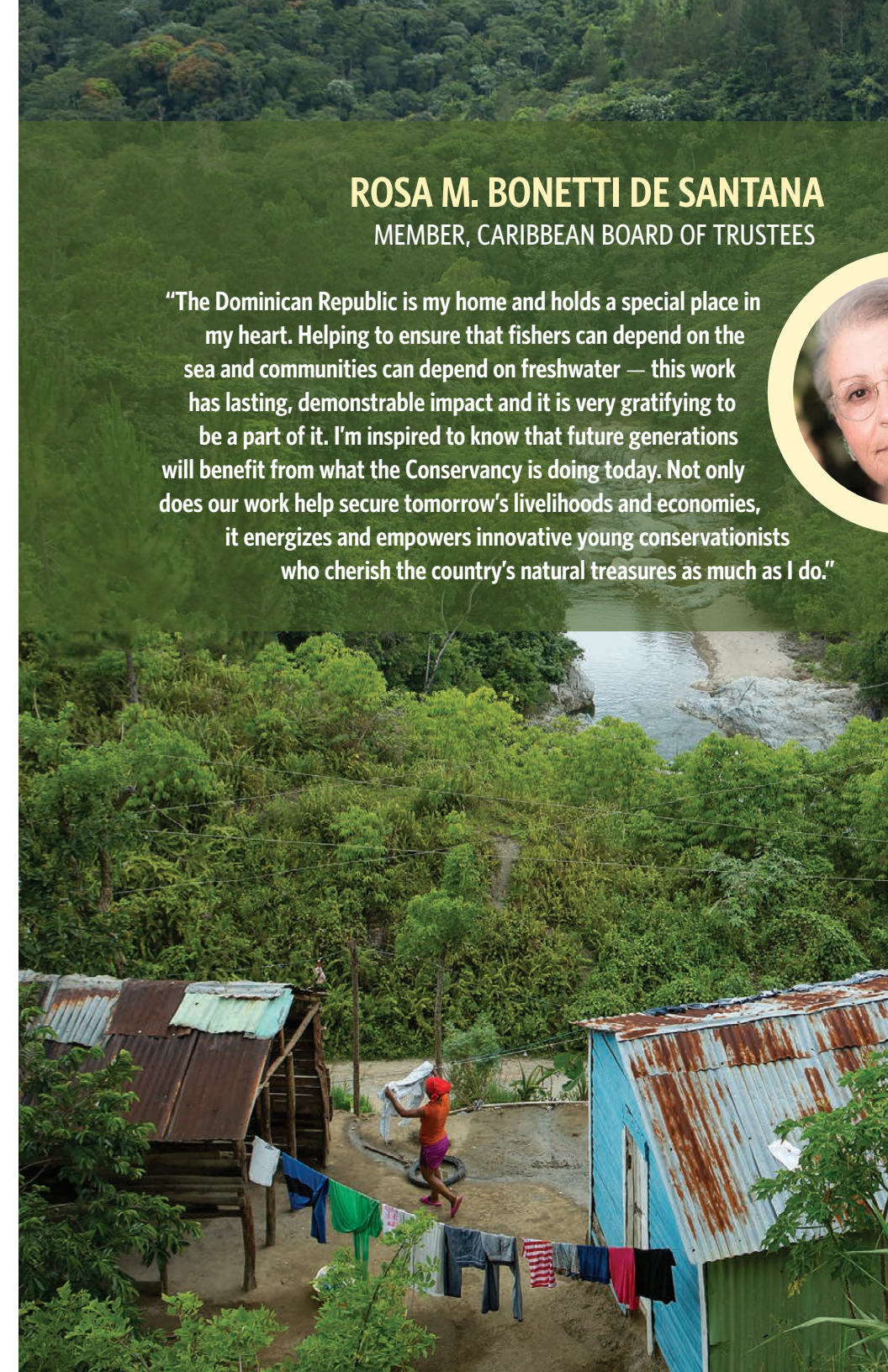
Fishing Goes Mobile

PUERTO RICO

The Conservancy developed the first-ever electronic reporting system for fisheries in Puerto Rico, working closely with government agencies and fishing communities. The new mobile app combines data capture and visualization capabilities to improve the quality, precision and timeliness of fishery decisions and promote more sustainable management, while also making it faster and easier for fishers to report their catch numbers. The app was enthusiastically received by fishers, fishery managers and government staff as a more efficient and informative system.

DID YOU KNOW? Parrotfish spend up to 90% of their day eating algae off coral reefs, which plays a key role in keeping reefs healthy

THIS PAGE The Mahomita River, a micro-watershed within the Nizao River in the Dominican Republic © Tim Calver; INSET Rosa M. Bonetti de Santana © Rubén Román



CLIMATE

Building resilient islands by restoring coral reefs and mangroves, protecting freshwater sources and helping communities adapt to the impacts of climate change

STEVE SCHILL
SENIOR SCIENTIST



“Drones have opened up a new era for environmental monitoring. They’re incredibly versatile and cost-effective, and they provide highly detailed data on demand. Our drone trainings provide governments and partners with a valuable tool they can learn to use quickly and immediately begin collecting data to monitor their mangroves and coral reefs on a regular basis, providing a new perspective on their coastal habitats and insight into their conservation activities. After our drone demonstration at Reef Week, all the kids were thrilled about seeing the ocean from above and began asking lots of great questions about marine conservation.”

Inspiring a Climate-Conscious Generation

GRENADA

Over 1,000 community members, including hundreds of students, attended Reef Week, an event hosted by the Conservancy and partners in the coastal town of Grenville, Grenada, as part of the *At the Water's Edge* project. With fun and educational activities like mural painting and mangrove planting, the event raised awareness about the importance of conserving coral reefs and mangroves to protect against coastal erosion, hurricanes and other dangerous impacts of climate change. The students were excited to learn how they can help protect their ocean and beaches, with several announcing at the end of the week that they want to be marine biologists when they grow up!



Bringing a Mangrove Forest Back to Life

SAINT LUCIA

The Conservancy and partners brought together scientists, government agencies and community members, including over 400 students, to restore a severely damaged mangrove forest by planting 4,000 seedlings — nearly 100% of which are now growing successfully. The Ma Kôté mangrove forest is the largest in the Eastern Caribbean and protects communities along the southern coast of Saint Lucia from impacts of climate change like flooding and erosion, in addition to serving as habitat for juvenile fish. About 10% of the mangroves were dead and the damaged area was spreading due to poor water circulation issues that were addressed as part of the project. A full recovery of the forest is now expected.

THIS PAGE CLOCKWISE Red mangroves grow along the edge of Baie Liberté, protecting coastlines in Haiti. © Tim Calver; Elkhorn coral showing signs of bleaching in Grenada © Kemit-Amon Lewis/TNC; Steve Schill © TNC **OPPOSITE PAGE** CLOCKWISE Children in Grenville, Grenada, draw a mural of their favorite marine species at Reef Week. © The Grenada Fund for Conservation; Drone-captured aerial view of Ashton Lagoon in Saint Vincent & the Grenadines © Steve Schill/TNC; A guided kayak tour in Los Haitises National Park in the Dominican Republic © Tim Calver; Odalis Gerónimo plants shade-grown coffee in the Cordillera Central mountain range in the Dominican Republic. © Tim Calver

Water Funds at Work

DOMINICAN REPUBLIC

Over 80,000 shade-grown coffee seedlings and native pine and mahogany trees were planted as part of a reforestation project to protect freshwater for Dominican communities. The restored native forest will provide shade to support the farming of coffee, a water-conscious crop that can be grown without resulting in harmful run-off near watersheds — helping to sustain livelihoods while safeguarding freshwater for families and communities throughout the Dominican Republic. The project was made possible through Water Funds — tools established in the country by the Conservancy and partners to help ensure the long-term conservation of freshwater sources and apply nature-based solutions that provide resilience against drought, an impact of climate change.

Strengthening Coasts and Livelihoods

SAINT VINCENT & THE GRENADINES

The Conservancy is helping to reforest the coast of Ashton Lagoon, an important fishing and recreational bay in the Grenadines that is home to the largest mangrove habitat on Union Island. Community members were taught how to plant and grow 3,000 healthy mangrove seedlings provided for the reforestation work, with young conservationists supported by the Conservancy and partners' *Junior Rangers Program* on hand to help. Restoring the mangrove forest will not only help protect the communities that live and work along the coast from flooding and erosion brought on by climate change, but it will also support alternative livelihood opportunities, including ecotourism activities like guided nature tours and kayaking.

DID YOU KNOW? Mangroves can reduce the height of waves reaching the coastline by 66%, helping to reduce erosion and flooding risk

A Bird's Eye View of Nature

THE BAHAMAS AND THE CAYMAN ISLANDS

The Conservancy continues to develop and implement high-tech drones to assess the health of mangroves and coral reefs, allowing for better protection of these natural assets that safeguard vulnerable coasts. Our scientists led air drone trainings for The Bahamas' government, teaching attendees how to plan and carry out data-gathering drone missions on coastal habitats that will inform conservation and restoration efforts. In the Cayman Islands, the Conservancy built a water drone for the Department of Environment that floats on the ocean's surface, takes photos and creates 3D models of reefs. This prototype will allow the Cayman government to advance its reef monitoring strategy and quickly deploy the drone to areas suffering from coral disease or bleaching that need to be prioritized for restoration.



CORAL REEFS

Restoring reefs using cutting-edge science to grow genetically diverse, resilient corals that can adapt to climate change stressors, while protecting critical reefs that remain today

DR. DIRK PETERSEN

FOUNDER & EXECUTIVE DIRECTOR OF SECORE INTERNATIONAL



“Joining forces with The Nature Conservancy, our goal is to drive forward coral reef conservation to a meaningful scale by developing techniques to restore hundreds of thousands of corals at once. We are now able to collect up to a million coral gametes during one spawning event, achieve fertilization rates of nearly 100% and apply new technology to help ensure the young corals develop and settle successfully on the reef. This is a major breakthrough we are now further developing and scaling up with the Conservancy.”

One Million Corals and Beyond

REGION-WIDE

The Conservancy launched a transformative coral conservation initiative to save threatened corals from extinction and bring damaged reefs back to life before it's too late. With a goal of growing and outplanting at least one million corals in the next five years, partnerships have been established with leading coral science organizations to carry out high-impact restoration of the reefs that sustain our ocean, protect our coastlines and support millions of livelihoods. In addition to addressing the root causes of reef degradation — including climate change, overfishing and pollution — the Conservancy is forging new frontiers with science-based restoration advances that can outpace these threats to reefs. Our approach:

Identify priority areas for coral protection and restoration

Using new modeling systems, the Conservancy and partner Coral Reef Alliance are determining sites with high coral spawning rates, strong connections between reefs and proximity to ocean currents that carry a diversity of marine species — all attributes that help ensure optimal, long-term reef recovery.

Pioneer innovative restoration techniques

The Conservancy and partners Mote Marine Laboratory, SECORE International and the University of the Virgin Islands are developing and applying cutting-edge techniques, like splitting corals into small fragments to stimulate growth before outplanting to damaged reefs and facilitating sexual reproduction to exponentially increase fertilization and survival rates while maintaining essential coral genetic diversity.

Mobilize coral action around the world

The Conservancy is creating opportunities to deploy coordinated coral conservation efforts anywhere in the world, working with the U.S. National Oceanic and Atmospheric Administration and the California Academy of Sciences. The Conservancy's *Reef Resilience Network*, an online education tool, currently reaches thousands of conservation practitioners from over 60 countries and territories.

Making Baby Corals for the First Time

U.S. VIRGIN ISLANDS

For the first time in the Virgin Islands, the Conservancy and partner SECORE International completed a successful coral restoration expedition using groundbreaking sexual reproduction techniques to grow baby corals. A team of scientists descended on St. Croix during the small window once a year when corals spawn and conducted underwater explorations to collect gametes, or bundles of eggs and sperm, from elkhorn corals, an essential Caribbean reef-building species currently considered threatened. The effort resulted in 750,000 coral embryos growing in protected nurseries until ready to outplant onto reefs as healthy new corals. During the expedition, elkhorn corals outplanted by the Conservancy in 2012 were seen spawning, showing they had flourished on their own and were now reproducing naturally. This triumph embodies the Conservancy's new coral conservation vision — restoring reefs in revolutionary ways that have continual, lasting impact on the future of coral in the Caribbean.

DIVE DEEPER: Learn more about our Virgin Islands coral expedition at nature.org/USVICoral and about our Reef Resilience Network at reefresilience.org

DID YOU KNOW? Coral reefs are home to 25% of the world's fish and benefit approximately 500 million people worldwide each day

OPPOSITE PAGE Fish swim along a reef in Grenada. © Kemit-Amon Lewis/TNC; **INSET** Dr. Dirk Petersen © Paul Selvaggio **THIS PAGE** CLOCKWISE Healthy, young staghorn coral grown and outplanted by the Conservancy in St. Croix, U.S. Virgin Islands © Kemit-Amon Lewis/TNC; Conservancy partners secure floating pools for the coral spawning expedition in St. Croix, U.S. Virgin Islands. © Paul Selvaggio; The coral expedition team transports tiles that will house coral embryos. © Paul Selvaggio; Elkhorn coral gametes collected during spawning © Paul Selvaggio

Reef-safe Eating Made Easy

U.S. VIRGIN ISLANDS AND PUERTO RICO

The Conservancy's *Reef Responsible* initiative in the U.S. Virgin Islands is growing and motivating consumers, restaurants and fishers to be more reef-conscious, and Puerto Rico is now building on this success by launching a sister project, *Consume Pesca Responsable*. These initiatives raise awareness about the importance of consuming, selling and catching only in-season species that can be fished without harming coral reefs and marine biodiversity. Restaurants that volunteer to be *Reef Responsible* commit to serving only sustainable seafood options, which helps consumers make informed choices and provides fishers with a market for their reef-friendly catch.

DIVE DEEPER: Learn more about Reef Responsible and our coral conservation work in the Virgin Islands at reefconnect.org

SECURING THE FUTURE

Inspiring global action by sharing our expertise, building a strong community of supporters and motivating the next generation to help bring about a sustainable future in the Caribbean and beyond

KEYSHLA QUIRINDONGO LEAF INTERN

"Through my LEAF internship, I was able to see and do things firsthand that changed the way I think about conservation. We snorkeled and saw coral reefs that were damaged and learned how that impacts ocean health. It made me think about ways I can help prevent coral bleaching in my own life and encourage others to do the same. Sea turtle monitoring was amazing. We saw a green sea turtle laying her eggs and it felt really good to take part in providing this threatened species with a safe place to nest."



Supporting Tomorrow's Leaders Today

U.S. VIRGIN ISLANDS

To inspire the next generation of conservation leaders and scientists, the Conservancy hosted high school students to intern with the U.S. Virgin Islands team as part of *Leaders in Environmental Action for the Future* (LEAF), a Conservancy program that engages young people from urban communities in protecting nature for their generation and the next. The students were tasked with hands-on projects, including coral surveying, sea turtle monitoring, trail clearing and tree planting, to help them learn why and how the Conservancy works to protect nature and people in the Caribbean. The students took the role of teacher when they designed and led conservation-minded learning activities for kids from the local Boys and Girls Club. At the end of the internship, several students declared that, while they arrived with an interest in conservation, they left with a newfound love for corals, plants and exploring the ocean.

Coral Conservation's New Home

U.S. VIRGIN ISLANDS

The Conservancy's nature preserve in St. Croix, a historic sugar plantation called Estate Little Princess, is evolving into a coral conservation hub. Building on several years of successfully developing underwater coral nurseries, plans are in the works for establishing land-based nurseries within a new coral science lab at the preserve, which will host a network of restoration practitioners, partners, scientists, teachers and students. The goal is to advance research to continually improve coral restoration and to promote education on multiple levels, from local communities to national organizations to government agencies. As a key step toward this goal, the Conservancy and partners launched a *Coral Restoration Consortium* — a community of coral conservation practitioners from around the world dedicated to sharing restoration science that will enable coral reefs to survive and adapt through the 21st century and beyond.

Growing Our Social Community

GLOBAL

As climate change and other environmental threats escalate, passion for conservation in the Caribbean and beyond is growing. The Conservancy is building on this by developing strong community engagement on social media. In just the first year of this effort, the Caribbean Division's Facebook community exploded to over 10,000 followers and its brand-new Instagram profile has attracted over 1,000 followers — with an over 3,300% increase in audience reach and the number of people engaging with stories about our work! Growing our social media visibility has allowed for a more immediate connection with a diverse audience of conservation supporters, as well as the opportunity to share our successes and educate people from around the world about the conservation challenges faced in the Caribbean.



CONNECT: Join our social community

@caribbeanTNC @nature_caribbean

THIS PAGE LEAF intern Keyshla Quirindongo helps monitor coral reefs in St. Croix, U.S. Virgin Islands. © Becky List
OPPOSITE PAGE CLOCKWISE Coral scientists prepare for facilitated coral reproduction work in the U.S. Virgin Islands. © Paul Selvaggio; Summer 2017 LEAF interns © Becky List; A green sea turtle swims in the waters of St. Croix, U.S. Virgin Islands. © Kemit-Amon Lewis/TNC; LEAF intern Keyshla Quirindongo © Becky List; Estate Little Princess, a Conservancy nature preserve in St. Croix, U.S. Virgin Islands © Kemit-Amon Lewis/TNC



DIVE DEEPER: Learn more about the Coral Restoration Consortium at nature.org/CoralConsortium



— THE MISSION OF —
The Nature Conservancy
is to conserve the lands
and waters on which
**ALL LIFE
DEPENDS.**



THIS PAGE A girl runs along the beach at Jack and Isaac Bay Preserve on St. Croix, U.S. Virgin Islands. © Marjo Aho OPPOSITE PAGE A boy plays on a fishing boat near Samaná Bay in the Dominican Republic. © Tim Calver

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Eroded coastline and damaged homes in Rincón, Puerto Rico, after Hurricane Maria © Anthony Dooley