

The Nature  
Conservancy   
Hawai'i and Palmyra

# Hawai'i and Palmyra

## Nature's Solutions to a Changing Climate

Cultural Climate Reflections

Meet our Climate and Protection Manager

Climate Solutions Here and Now





# The Climate Tolls

‘Ōhi’a lehua tree stands out against a brilliant sunset at our Kona Hema Preserve on Hawai‘i Island. © John De Mello

Aloha kākou,

Climate change is here. No longer does it loom as a far-away possibility, but instead plays out across the globe with storms, droughts, floods, fires, economic disruption and loss of life. In Hawai‘i, we are dealing with these impacts more frequently. This year, we saw the largest wildfire in Hawai‘i’s history. In less than three years, Kaua‘i has experienced two disastrous floods. Our coral reefs are still recovering from coral bleaching events in 2014, 2015 and 2019. Today, we have the science and knowledge to address these challenges. TNC Hawai‘i and Palmyra stands at the convergence of natural solutions, science and resilience—examples of these are featured in this newsletter—that defines and advances our path forward.

Hawai‘i’s indigenous culture and worldview teaches us that we have to look back before looking forward. The generations who came before us created holistic solutions to provide for and sustain a population—almost as large back then as it is today—while also sustaining and protecting natural resources, building a relationship between nature and people based on reciprocity. These teachings guide us forward.

In Hawai‘i, we know the relationship between our native forests and water, rain and mist slowly moving through leaves and mosses until that water reaches the forest floor. We know the critical purpose of our coral reefs, supporting a quarter of all marine life, providing protection from storm surge and rising seas, and affording sustenance for millions across the world. We know that nature itself can provide solutions to our world’s greatest problems if we harness our will and allow it to do so.

The Nature Conservancy was founded with the mission to save the last great places, and then to conserve those great places *with* and *for* people. Climate change is our most urgent challenge, and it’s our kuleana, our privilege and responsibility, to address it.

With that in mind, we are excited to announce our Climate Solutions Fund, an opportunity for you to be part of the solution. With your support, this fund will finance our critical work across the Hawaiian Islands and Palmyra Atoll to protect our watersheds, preserve rare and essential habitats, air and water for future generations, and catalyze public and other private funding for climate science. It’s ambitious. It’s urgent. And together, we can make it happen.

Mālama a mahalo a nui loa.  
Take care and thank you very much.

Ulalia Woodside



© Rikki Cooke



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The Nature Conservancy Hawai‘i and Palmyra chapter is the local affiliate of The Nature Conservancy, an international, non-profit organization based in Arlington, VA.

**The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends.**

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Cover: Native lobelia plant at the summit of Wai‘ale‘ale in East Alaka‘i, part of TNC’s Wainiha Preserve on Kaua‘i. © TNC

## Cultural Climate Solutions

Over the millennium that our Hawaiian ancestors have resided in these islands, the vagaries of climate and the connection between healthy ecosystems and healthy people have been deeply woven into culture. The Hawaiian precept Hahai nō ka ua i ka ulu lā‘au (the rain follows the forest) speaks to the critical importance of healthy forests for our water supply, and explains why the forests above the coastal and lowland plains were considered wao akua (the realm of the gods), with sacred restrictions on access and resource use.

Ancient Hawaiian communities practiced behaviors that maintained the health of the lands and seas. All the living non-human denizens of land and sea were considered the kinolau (physical forms) of their ancestors, and people cared for them and knew their variations well.

The biocultural connections that communities are reforging with their lands and waters today are seen in our work to protect forests and coasts from various threats—including those of climate change. Our pioneering work in Hawai‘i and Palmyra serves as a global model for nature-based solutions to climate change and the role of human-nature connections in forging those solutions. —*Sam ‘Ohu Gon*



Waikamoi cloud forest © David Muench

## She Who Walks Mountains



Steph Dunbar-Co was born on Kaua‘i but raised on east Moloka‘i when her father was asked to help manage a family ranch that spans five generations in the Kainalu ahupua‘a (traditional land division extending from the uplands to the sea). Her Hawaiian name, Maunaihele‘ia, means ‘she who walks mountains.’ Her deep roots and an upbringing outdoors affirmed her namesake and fostered in

her a love of Hawai‘i’s natural places and native species. It also encouraged her to earn M.S. and Ph.D. degrees in Botany and pursue a career focused on protecting Hawai‘i.

Steph joined TNC in 2014 as the Moloka‘i East Slope Project Manager and in 2020 became the Climate and Protection Manager for the Hawai‘i and Palmyra chapter, responsible for leading land acquisitions and developing the chapter’s new Climate Program. Steph feels the progression of these roles is timely.

“Climate change poses the single most critical threat to nature and people, and the protection of biodiversity remains our strongest response,” she says.

For inspiration, Steph looks no further than out her window, where a thriving 21<sup>st</sup> century ahupua‘a is within reach and Hawai‘i’s role as a leader in climate change adaptation and mitigation beckons. —*Jessica Glazner*

Jana Ireijo’s artwork illustrates the plight of coral bleaching. © Maui Ocean Center



[nature.org/HawaiiPalmyra](http://nature.org/HawaiiPalmyra)

## Novel Ways To Address Climate

We at TNC Hawai‘i and Palmyra are always exploring innovative solutions to raise awareness about and tackle the impacts of climate change. Earlier this year, we collaborated with artist Jana Ireijo, who created a “vanishing” mural to illustrate how climate change and the coral bleaching it causes threaten coral reefs. A study we conducted on insuring Hawai‘i’s reefs against hurricane damage confirmed that it is both feasible and cost effective, so we are now working to develop Hawai‘i’s first reef insurance policy. And as part of the multi-agency “Birds, Not Mosquitoes” project, we hope to head off the extinction of Hawai‘i’s native forest birds due to avian malaria, which is spreading as temperatures rise in our forests, by using a naturally occurring bacteria as a “mosquito birth control” to suppress mosquitoes in endangered bird habitat. Read about these projects and more at [nature.org/HawaiiPalmyra](http://nature.org/HawaiiPalmyra).



# Climate Solutions Here and Now

by *Melissa Fisher*

Running barefoot as a kid from the ocean to mountains on the east end of Molokaʻi is how our Climate and Protection Manager Steph Dunbar-Co developed her love of Hawaiʻi’s natural places. She has witnessed significant changes to the coastline near her home. “When I was a kid, coastal flooding only happened during storms. Now it happens on every king tide, and sometimes it doesn’t even take that.”

Steph views TNC’s work as a legacy of protecting land, waters and biodiversity, and with that the tremendous challenge of doing so in the face of a changing climate.

TNC’s history evolved from saving the last great places—protecting nature for its intrinsic value—to saving nature *with* and *for* people. This transition acknowledges the inextricable link that is so vital to addressing the threats we face.

You’ve seen the headlines heralding how the last four decades have been successively warmer. The science is confirmed. According to experts, the next 10 years will determine our global path; within this brief window of time, we need to act boldly to reverse the trend and secure a more stable future.

TNC scientists have determined that natural climate solutions can provide 37% of the carbon reduction needed to meet global climate goals. These solutions have the added benefit of protecting biodiversity, increasing food and water security, and reducing risks associated with natural disasters. We at TNC Hawaiʻi and Palmyra are poised to act on this global crisis from our unique vantage point as scientists and stewards of some of the most remote places in the world.



Mount Waiʻaleʻale, Kauaʻi © TNC

## THE NATIVE FOREST KNOWS

Walking through a Hawaiian rainforest, you are surrounded by plants and trees that have evolved over millions of years to capture water. Rain and mist slowly drip from leaves and mosses until water is absorbed by the forest floor, sometimes taking 25 years to reach our drinking water supply.

“The importance of a healthy forest can’t be overstated,” says Jason Sumiye, TNC’s Director of Landscape Science.

“We need these forests to function to replenish our water.” A healthy forest is best equipped to endure changes posed by climate impacts and continue to capture the fresh water needed by our communities.

To this end, we are securing the health of forests across the state, using innovative solutions such as drones, remote cameras and infrared scopes to gather information on changes in the forest. “Removing weeds and building fences to ensure animals don’t get into these areas is key,” Jason says. “The native forest does the rest.”

## HEALTHY REEFS, FAR-REACHING SOLUTIONS

Coral reefs support a quarter of all marine life, offer protection from rising seas and storm surge, and provide sustenance for over 500 million people around the globe, yet are threatened by warming seas. Between 2014 and 2017,



TNC and partners are testing dryland revegetation methods to reduce erosion. © Shalan Crysdale/TNC



Palmyra’s reefs have shown resilience to coral bleaching. © Ian Shive

the world’s coral reefs experienced heat stress, coral bleaching and mortality, with some reefs experiencing up to 90% coral death. Hawaiʻi reefs suffered more than 30% mortality across the state. Yet Palmyra Atoll had less than 10% mortality.

With fringing reefs dating back 80 million years surrounding the atoll, Palmyra has some of the healthiest corals in the world. This, plus the absence of most human-related impacts, makes the Atoll an ideal living laboratory to study coral reef resilience and restoration.

“Our overall approach at Palmyra is to understand how diverse yet interconnected factors—like invasive rat removal and reintroduction of native trees and seabirds—contribute to the amazing resilience of the reefs,” says Joe Pollock, Senior Coral Reef Resilience Scientist with TNC’s Palmyra program.

Palmyra’s reefs are more tolerant of warming seas when invasive rats are removed, allowing native seabird

populations to thrive and nutrients from their guano to feed the reef. “The secrets of reef resilience uncovered at Palmyra provide exciting management opportunities that can be applied to coral reefs in Hawaiʻi, and worldwide,” adds Pollock.

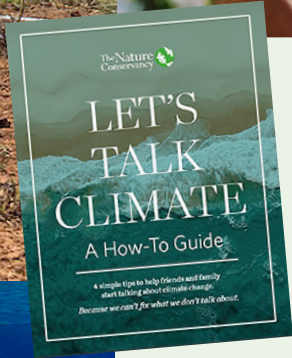
On Hawaiʻi Island, our teams are collaborating with local partners on a pilot project to reduce erosion in the Pelekane Watershed. Together they are developing strategies for landowners to use across the region to retain and restore precious soil in these arid lands and minimize impacts to the reefs.

“Healthy reefs are better able to withstand the impacts of climate change,” says Rebecca Most, TNC’s Hawaiʻi Marine Program Manager, “so our teams are working with local landowners to test various plants and planting methods to reduce sediment running onto the coral reefs in Pelekane Bay.”



Let’s Talk Climate!

Let’s Talk Climate video © Living Oceans Productions



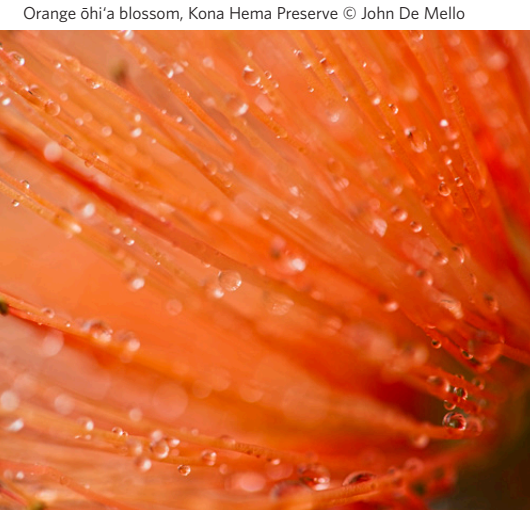
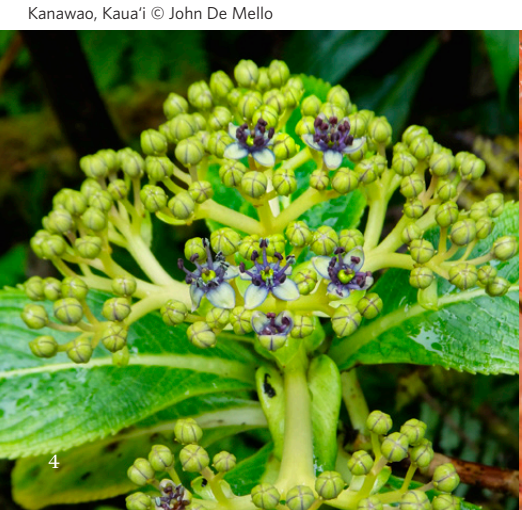
One of the most important actions we can take to address climate change is to *talk about it*. As part of our emerging efforts in developing our stand-alone climate program and strategy, we are happy to share about our work in Hawaiʻi and Palmyra that addresses climate, and resources on how to engage. Scan the QR code below with your cell phone camera or visit [nature.org/HawaiiPalmyra](https://nature.org/HawaiiPalmyra). To learn more, watch the video and download TNC’s how-to guide.



Nature as a Solution

These projects show the power of nature to provide adaptive solutions to our climate crisis. TNC is working to address climate impacts by restoring and protecting nature with the added benefits of ensuring cleaner air and water, driving our economy, providing habitat for wildlife, and protecting outdoor spaces. Find out more about our **Climate Solutions Fund** in this newsletter and join us to ensure a more stable climate future.

Beach at Moʻomomi Preserve © Richard A Cooke III



Orange ōhiʻa blossom, Kona Hema Preserve © John De Mello

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[nature.org/HawaiiPalmyra](https://nature.org/HawaiiPalmyra)





Healthy coral reefs provide protection from storm surge and rising seas. © Chad Wiggins

## Climate Solutions Fund

Climate change is one of the world’s most urgent challenges and a priority for TNC. While every degree of warming brings greater perils such as droughts, more frequent and severe storms, fires and rising seas, we know that immediate actions can make a difference. Natural climate solutions have the added benefits of keeping our air and water clean, driving our economy, providing habitat for wildlife, and protecting the outdoor spaces.

The **Climate Solutions Fund** is a new gift opportunity whereby donors can help TNC in Hawai‘i and Palmyra address the climate crisis while also restoring and protecting nature in our islands and beyond.

Please consider making a gift to the **Climate Solutions Fund**. Contact Lori Admiral, Director of Philanthropy at 808-587-6249 or [lori.admiral@tnc.org](mailto:lori.admiral@tnc.org).

## Welcome Our New Trustees!



**Julie Smolinski** is VP of Investor Relations and Corporate Sustainability at Hawaiian Electric Industries, where she leads Investor Relations and works to expand Environmental, Social and Governance (ESG) integration and disclosure efforts. Previously, Julie practiced corporate law and worked in public affairs with the U.S. Department of State and Powell Tate in Washington, D.C. She is one of HEI’s representatives to Hawai‘i Green Growth’s Sustainability Business Forum and a member of its ESG Focus Group. Julie enjoys stand-up paddling, hiking, skiing, gardening and travel. She admires TNC’s expertise and passion to protect Hawai‘i’s unique environment and employ natural solutions to climate change challenges.



**Bradley E. Smith** is the founder of Kahala Capital, a private investment firm, and Kahala Aviation, a commercial aircraft leasing company. Brad spent 20 years as an investment banker in New York and Tokyo, working in high-yield credit and derivative markets. He has served on the board of several real estate companies and hedge funds and is currently on the board of Nasdaq-listed Tiptree, Inc. He enjoys surfing, sailing and hiking. Given all the time he spends on the water and in Hawai‘i’s remote places, he is sensitive of the need to preserve the islands’ natural environments and appreciates the good work TNC has done to date.



Loulu in Kona Hema Preserve © Grady Timmons/TNC

## Celebrating Legacy Club Members

Mahalo to our new Legacy Club members for their long-term support of Hawai‘i’s lands and waters. In their honor, we planted and dedicated rare native loulu palms (*Pritchardia schattaueri*) in our Kona Hema Preserve on Hawai‘i Island. The seeds came from a grove of founder trees, one of them over 200 feet tall. These giants create their own unique sound of leaves rustling in the wind, which has been echoing through the forest for thousands of years.

If you would like to make a legacy gift or have already named us in your will, trust, retirement plan or other estate plans, please let us know. We would be honored to carry out your legacy for conservation!

Contact Lara Siu at (808) 587-6235 or [lsiu@tnc.org](mailto:lsiu@tnc.org).

### LOULU DEDICATED TO:

Anonymous  
Kris Billeter  
In honor of George and Sueko Chinen  
Dr. Alan Friedlander and Gabriela Layi  
Pat Gotschalk & Barry Solomon  
In memory of Richard Ridgard Hartley  
Steven Lum  
Tom and Janet Montag  
Dr. Warren Wong

Loulu © Grady Timmons/TNC



The Nature Conservancy, Hawai‘i and Palmyra

# McInerny Foundation Protecting Our Backyard

Growing up in Kahalu‘u on O‘ahu, Nate Smith spent a lot of time outdoors, exploring both mauka and makai (mountains and sea), which instilled an awe and respect for the richness of Hawai‘i’s forests and ocean. His connection to nature as a child nurtured a deep sense of community involvement as an adult, which eventually led him to serve on various local boards, including the McInerny Foundation and The Nature Conservancy in Hawai‘i. Since its inception in 1980, TNC has built lasting partnerships with local foundations such as the McInerny Foundation.

“We all want to ensure that our backyard—all that we cherish about the islands—will be here for future generations” was Nate’s compelling



McInerny Foundation Board Member  
Nate Smith © Sean Marrs/TNC

reason for getting involved with The Nature Conservancy in Hawai‘i. He started by hosting events in the early 2000s, connecting scientists and young adults in the community, many of whom were kama‘āina. Nate shared, “These talks brought in TNC experts and focused on raising awareness of the environment with the younger generation, as well as raising money for TNC.”

Nate was drawn to the McInerny Foundation because of its commitment to youth, education and the environment. The McInerny Foundation understands the importance of protecting Hawai‘i’s natural resources, and that protecting the environment is an ongoing and constant responsibility.

Having consistent financial support for and management of these important areas is critical for them to thrive. For over 84 years, the McInerny Foundation has remained steadfast in its principles to ensure that the services they support benefit Hawai‘i’s environment and community.

The McInerny Foundation was established in 1937 by twins William and James McInerny, along with their sister Ella. Their father, Patrick Michael McInerny, had obtained a retail license from the Kingdom of Hawai‘i in 1864 to operate a store on Beretania Street, and over the years the store became a thriving business. Patrick’s children later inherited the store and continued its management prior to establishing the McInerny Foundation with Bishop Trust Company, and now Bank of Hawai‘i.

The TNC Hawai‘i and Palmyra chapter would not be where it is today without the support of organizations such as the McInerny Foundation. Since 1982, their funding has allowed TNC to grow and maintain programs that help protect thousands of acres of Hawai‘i’s native forests and nearshore ocean ecosystems.

Nate has come full circle through his involvement with both the McInerny Foundation and TNC. He sees the younger generation’s level of involvement and focus as a combination worth supporting—one that will guide our communities to find solutions to ever-evolving environmental challenges. “The next generation will have the insight, energy, knowledge and passion to protect Hawai‘i, drawing from our history, culture and science.”

TNC Director of Philanthropy Lori Admiral agrees. “Partnerships are key. Together as a community, drawing on TNC’s shared mission with foundations like the McInerny Foundation, we can ensure solutions are found, for the protection of our backyards and also for our planet.”

—Melissa Fisher



William



James



Ella

McInerny Foundation founders William and James McInerny and sister, Ella. Images courtesy of the McInerny Foundation.





## Discover New Ways to Give and Save

In these uncertain times, some of our members find that their personal and philanthropic goals are changing and are looking for new ways to continue their support. Did you know that TNC offers a variety of smart giving options?

- Giving appreciated stock or real estate can be tax-efficient because you may be able to receive a charitable income tax deduction and reduce capital gains taxes.

- If you are 70½ or older, you can make a Qualified Charitable Distribution from your IRA. Your gift may count toward your Required Minimum Distribution and be excluded from your taxable income.
  - There are gifts that pay you or your loved one stable income for life, provide a tax deduction, and support nature in the future.
- To learn more, please contact Lori Admiral at (808) 587-6249 or [lori.admiral@tnc.org](mailto:lori.admiral@tnc.org).

